The Manufacturers Life Insurance Company

Consolidated Financial Statements

For the year ended December 31, 2023

Responsibility for Financial Reporting

The accompanying consolidated financial statements of The Manufacturers Life Insurance Company are the responsibility of management and have been approved by the Board of Directors.

The consolidated financial statements have been prepared by management in accordance with International Financial Reporting Standards and the accounting requirements of the Office of the Superintendent of Financial Institutions, Canada. When alternative accounting methods exist, or when estimates and judgment are required, management has selected those amounts that present the Company's financial position and results of operations in a manner most appropriate to the circumstances.

Appropriate systems of internal control, policies and procedures have been maintained to ensure that financial information is both relevant and reliable. The systems of internal control are assessed on an ongoing basis by management and the Company's internal audit department.

The actuary appointed by the Board of Directors (the "Appointed Actuary") is responsible for ensuring that assumptions and methods used in the determination of policy liabilities are appropriate to the circumstances and that reserves will be adequate to meet the Company's future obligations under insurance and annuity contracts.

The Board of Directors is responsible for ensuring that management fulfills its responsibility for financial reporting and is ultimately responsible for reviewing and approving the consolidated financial statements. These responsibilities are carried out primarily through an Audit Committee of unrelated and independent directors appointed by the Board of Directors.

The Audit Committee meets periodically with management, the internal auditors, the peer reviewers, the external auditors and the Appointed Actuary to discuss internal control over the financial reporting process, auditing matters and financial reporting issues. The Audit Committee reviews the consolidated financial statements prepared by management, and then recommends them to the Board of Directors for approval. The Audit Committee also recommends to the Board of Directors for approval the appointment of external auditors and their fees.

The consolidated financial statements have been audited by the Company's external auditors, Ernst & Young LLP, in accordance with Canadian generally accepted auditing standards. Ernst & Young LLP has full and free access to management and the Audit Committee.

Roy Gori
President and Chief Executive Officer

Colin Simpson
Chief Financial Officer

Toronto, Canada
February 14, 2024

Appointed Actuary's Report to the Policyholders and Shareholder

I have valued the policy liabilities of The Manufacturers Life Insurance Company for its Consolidated Statements of Financial Position as at December 31, 2023 and 2022 and their change in the Consolidated Statements of Income for the years then ended in accordance with International Financial Reporting Standards.

In my opinion, the amount of policy liabilities is appropriate for this purpose. The valuation conforms to accepted actuarial practice in Canada and the Consolidated Financial Statements fairly present the results of the valuation.

Steven Finch
Appointed Actuary

Toronto, Canada
February 14, 2024

Independent Auditor's Report

To the Policyholders, Shareholder and Board of Directors of The Manufacturers Life Insurance Company

Opinion

We have audited the consolidated financial statements of The Manufacturers Life Insurance Company (the Company), which comprise the consolidated statements of financial position as at December 31, 2023 and the consolidated statements of income, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the year then ended, and notes to the consolidated financial statements, including material accounting policy information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as at December 31, 2023 and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the consolidated 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:

- The information, other than the consolidated financial statements and our auditor's report thereon, in the Report to Policyholders.

Our opinion on the consolidated 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 consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

The Report to Policyholders is expected to be made available to us after the date of the auditor's report. If, based on the work we will perform on this other information, we conclude there is a material misstatement of other information, we are required to report that fact to those charged with governance.

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

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

In preparing the consolidated financial statements, management is responsible for assessing the Company'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 Company or to cease operations, or has no realistic alternative but to do so.

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

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated 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 generally accepted auditing standards 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 consolidated financial statements.

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

- Identify and assess the risks of material misstatement of the consolidated 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 Company'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 Company'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 consolidated 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 Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated 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 Company to express an opinion on the consolidated 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.

Ernst & Young LLP

Chartered Professional Accountants
Licensed Public Accountants

Toronto, Canada
February 14, 2024

Consolidated Statements of Financial Position

As at (Canadian $ in millions)		December 31, 2023		Restated (note 2) December 31, 2022		Restated (note 2) January 1, 2022
Assets						
Cash and short-term securities	**$**	**20,242**	$	19,081	$	22,508
Debt securities		**212,149**		203,842		224,139
Public equities		**25,531**		23,519		28,067
Mortgages		**52,421**		51,765		53,948
Private placements		**45,606**		42,010		47,289
Loans to Bank clients		**2,436**		2,781		2,506
Real estate		**13,049**		14,269		14,269
Other invested assets		**45,677**		42,801		35,289
Total invested assets (note 4)		**417,111**		400,068		428,015
Other assets						
Accrued investment income		**2,713**		2,670		2,463
Derivatives (note 5)		**8,713**		8,638		17,650
Insurance contract assets (note 7)		**145**		673		972
Reinsurance contract held assets (note 7)		**42,651**		45,871		52,829
Deferred tax assets		**6,639**		6,648		7,739
Goodwill and intangible assets (note 6)		**10,310**		10,519		9,919
Notes receivable from related party (note 20)		**90**		86		505
Miscellaneous		**9,743**		9,986		8,907
Total other assets		**81,004**		85,091		100,984
Segregated funds net assets (note 22)		**377,544**		348,562		399,788
Total assets	**$**	**875,659**	$	833,721	$	928,787
Liabilities and Equity						
Liabilities						
Insurance contract liabilities, excluding those for account of segregated fund holders (note 7)	**$**	**367,996**	$	354,849	$	405,621
Reinsurance contract held liabilities (note 7)		**2,831**		2,391		2,079
Investment contract liabilities (note 8)		**11,816**		10,079		10,064
Deposits from Bank clients		**21,616**		22,507		20,720
Derivatives (note 5)		**11,765**		14,366		10,073
Deferred tax liabilities		**1,697**		1,536		1,713
Notes payable to related party (note 20)		**163**		135		129
Other liabilities		**18,647**		18,676		19,284
Capital instruments (note 10 and 20)		**1,241**		1,262		2,225
Total liabilities, excluding those for account of segregated fund holders		**437,772**		425,801		471,908
Insurance contract liabilities for account of segregated fund holders (note 7)		**114,143**		110,216		130,836
Investment contract liabilities for account of segregated fund holders		**263,401**		238,346		268,952
Insurance and investment contract liabilities for account of segregated fund holders (note 22)		**377,544**		348,562		399,788
Total liabilities		**815,316**		774,363		871,696
Equity						
Preferred shares (note 11)		**-**		-		-
Common shares (note 11)		**44,792**		43,592		41,630
Contributed surplus		**5,539**		5,376		5,254
Shareholder's retained earnings		**(5,528)**		(4,946)		2,937
Shareholder's accumulated other comprehensive income (loss) ("AOCI"):						
Insurance finance income (expenses)		**30,010**		38,057		(17,117)
Reinsurance finance income (expenses)		**(4,634)**		(5,410)		984
Fair value through other comprehensive income ("OCI") investments		**(16,271)**		(24,654)		17,756
Translation of foreign operations		**4,905**		6,140		4,446
Other		**(158)**		(147)		(336)
Total shareholder's equity		**58,655**		58,008		55,554
Participating policyholders' equity		**257**		(77)		101
Non-controlling interests		**1,431**		1,427		1,436
Total equity		**60,343**		59,358		57,091
Total liabilities and equity	**$**	**875,659**	$	833,721	$	928,787

The accompanying notes are an integral part of these Consolidated Financial Statements.

Roy Gori
President and Chief Executive Officer

Don Lindsay
Chair of the Board of Directors

Consolidated Statements of Income

For the years ended December 31, (Canadian $ in millions)	2023	Restated (note 2) 2022
Insurance service result		
Insurance revenue (note 7)	**$ 23,972**	$ 23,118
Insurance service expenses (note 7)	**(19,382)**	(19,335)
Net expenses from reinsurance contracts held (note 7)	**(613)**	(623)
Total insurance service result	**3,977**	3,160
Investment result		
Investment income (note 4)		
Investment income	**16,208**	15,222
Realized and unrealized gains (losses) on assets supporting insurance and investment contract liabilities	**3,138**	(13,646)
Investment expenses	**(1,297)**	(1,221)
Net investment income (loss)	**18,049**	355
Insurance finance income (expenses) and effect of movement in foreign exchange rates (note 7)	**(13,894)**	(6,616)
Reinsurance finance income (expenses) and effect of movement in foreign exchange rates (note 7)	**(734)**	309
Decrease (increase) in investment contract liabilities	**(435)**	(399)
	2,986	(6,351)
Segregated funds investment result (note 22)		
Investment income related to segregated funds net assets	**49,346**	(56,487)
Financial changes related to insurance and investment contract liabilities for account of segregated fund holders	**(49,346)**	56,487
Net segregated funds investment result	**-**	-
Total investment result	**2,986**	(6,351)
Other revenue (note 13)	**6,736**	6,223
General expenses	**(4,276)**	(3,689)
Commissions related to non-insurance contracts	**(1,345)**	(1,333)
Interest expenses	**(1,124)**	(679)
Net income (loss) before income taxes	**6,954**	(2,669)
Income tax recoveries (expenses)	**(1,023)**	982
Net income (loss)	**$ 5,931**	$ (1,687)
Net income (loss) attributed to:		
Non-controlling interests	**$ 144**	$ 121
Participating policyholders	**360**	(167)
Shareholder	**5,427**	(1,641)
	$ 5,931	$ (1,687)

The accompanying notes are an integral part of these Consolidated Financial Statements.

Consolidated Statements of Comprehensive Income

For the years ended December 31, (Canadian $ in millions)	**2023**	Restated (note 2) 2022
Net income (loss)	**$ 5,931**	$ (1,687)
Other comprehensive income (loss) ("OCI"), net of tax:		
Items that may be subsequently reclassified to net income:		
Foreign exchange gains (losses) on:		
Translation of foreign operations	**(1,301)**	1,755
Net investment hedges	**109**	(61)
Insurance finance income (expenses)	**(9,745)**	58,772
Reinsurance finance income (expenses)	**787**	(6,364)
Fair value through OCI investments:		
Unrealized gains (losses) arising during the year on assets supporting insurance and investment contract liabilities	**9,251**	(47,494)
Reclassification of net realized gains (losses) and provision for credit losses recognized in income	**256**	1,347
Other	**19**	168
Total items that may be subsequently reclassified to net income	**(624)**	8,123
Items that will not be reclassified to net income	**(70)**	16
Other comprehensive income (loss), net of tax	**(694)**	8,139
Total comprehensive income (loss), net of tax	**$ 5,237**	$ 6,452
Total comprehensive income (loss) attributed to:		
Non-controlling interests	**$ 18**	$ 17
Participating policyholders	**334**	(177)
Shareholder	**4,885**	6,612

Income Taxes included in Other Comprehensive Income

For the years ended December 31, (Canadian $ in millions)	**2023**	Restated (note 2) 2022
Income tax expenses (recoveries) on:		
Unrealized foreign exchange gains (losses) on translation of foreign operations	**$ (1)**	$ 2
Unrealized foreign exchange gains (losses) on net investment hedges	**43**	(22)
Insurance / reinsurance finance income (expenses)	**(1,853)**	12,002
Unrealized gains (losses) on fair value through OCI investments	**1,863**	(9,599)
Reclassification of net realized gains (losses) on fair value through OCI investments	**(8)**	270
Other	**(26)**	56
Total income tax expenses (recoveries)	**$ 18**	$ 2,709

The accompanying notes are an integral part of these Consolidated Financial Statements.

Consolidated Statements of Changes in Equity

For the years ended December 31, (Canadian $ in millions)	2023	Restated (note 2) 2022
Preferred shares and other equity		
Balance, beginning of year	**$ -**	$ -
Issued (note 11)	**-**	-
Balance, end of year	**-**	-
Common shares		
Balance, beginning of year	**43,592**	41,630
Issued (note 11)	**1,200**	1,962
Balance, end of year	**44,792**	43,592
Contributed surplus		
Balance, beginning of year	**5,376**	5,254
Stock option expense, net	**(3)**	-
Transfer of subsidiaries	**166**	147
Acquisition of non-controlling interest	**-**	(25)
Balance, end of year	**5,539**	5,376
Shareholder's retained earnings		
Balance, beginning of year	**(4,946)**	16,773
Opening adjustment of insurance contracts at adoption of IFRS 17	**-**	(3,191)
Opening adjustment of financial assets at adoption of IFRS 9 / IFRS 17	**(409)**	(10,645)
Restated balance, beginning of year	**(5,355)**	2,937
Net income (loss) attributed to shareholder	**5,427**	(1,641)
Common share dividends	**(5,600)**	(6,199)
Acquisition of non-controlling interest	**-**	(43)
Balance, end of year	**(5,528)**	(4,946)
Shareholder's accumulated other comprehensive income (loss) ("AOCI")		
Balance, beginning of year	**13,986**	4,950
Opening adjustment of insurance contracts at adoption of IFRS 17	**-**	(16,133)
Opening adjustment of financial assets at adoption of IFRS 9 / IFRS 17	**408**	16,916
Restated balance, beginning of year	**14,394**	5,733
Change in unrealized foreign exchange gains (losses) on net foreign operations	**(1,191)**	1,694
Changes in insurance / reinsurance finance income (expenses)	**(7,222)**	48,780
Change in unrealized gains (losses) on fair value through OCI investments	**7,923**	(42,407)
Other changes in OCI attributed to shareholder	**(52)**	186
Balance, end of year	**13,852**	13,986
Total shareholder's equity, end of year	**58,655**	58,008
Participating policyholders' equity		
Balance, beginning of year	**(77)**	(1,233)
Opening adjustment of insurance contracts at adoption of IFRS 17	**-**	707
Opening adjustment of financial assets at adoption of IFRS 9 / IFRS 17	**-**	626
Restated balance, beginning of year	**(77)**	100
Net income (loss) attributed to participating policyholders	**360**	(167)
Other comprehensive income (losses) attributed to policyholders	**(26)**	(10)
Balance, end of year	**257**	(77)
Non-controlling interests		
Balance, beginning of year	**1,427**	1,694
Opening adjustment of insurance contracts at adoption of IFRS 17	**-**	(258)
Opening adjustment of financial assets at adoption of IFRS 9 / IFRS 17	**-**	-
Restated balance, beginning of year	**1,427**	1,436
Net income (loss) attributed to non-controlling interests	**144**	121
Other comprehensive income (losses) attributed to non-controlling interests	**(126)**	(104)
Contributions (distributions and acquisition), net	**(14)**	(26)
Balance, end of year	**1,431**	1,427
Total equity, end of year	**$ 60,343**	$ 59,358

The accompanying notes are an integral part of these Consolidated Financial Statements.

Consolidated Statements of Cash Flows

For the years ended December 31, (Canadian $ in millions)	2023	Restated (note 2) 2022
Operating activities		
Net income (loss)	**$ 5,931**	$ (1,687)
Adjustments:		
Increase (decrease) in net insurance contract liabilities (note 7)	**10,697**	5,016
Increase (decrease) in investment contract liabilities	**435**	399
(Increase) decrease in reinsurance contract assets, excluding reinsurance transaction noted below (note 7)	**974**	710
Amortization of (premium) discount on invested assets	**(141)**	(131)
Contractual service margin ("CSM") amortization	**(1,998)**	(1,993)
Other amortization	**571**	511
Net realized and unrealized (gains) losses and impairment on assets	**(2,858)**	13,660
Deferred income tax expenses (recoveries)	**653**	(1,816)
Stock option expense	**(3)**	-
Gain on U.S. variable annuity reinsurance transaction (pre-tax) (note 7)	**-**	(1,070)
Gain on derecognition of joint venture interest during Manulife Fund Management Co., Ltd. acquisition (pre-tax) (notes 3 & 6)	**-**	(95)
Cash provided by operating activities before undernoted items	**14,261**	13,504
Changes in policy related and operating receivables and payables	**6,617**	4,911
Cash decrease due to U.S. variable annuity reinsurance transaction (note 7)	**-**	(1,377)
Cash provided by (used in) operating activities	**20,878**	17,038
Investing activities		
Purchases and mortgage advances	**(84,021)**	(111,558)
Disposals and repayments	**70,276**	93,400
Change in investment broker net receivables and payables	**21**	(67)
Net cash increase (decrease) from sale (purchase) of subsidiaries	**(1)**	(182)
Cash provided by (used in) investing activities	**(13,725)**	(18,407)
Financing activities		
Change in repurchase agreements and securities sold but not yet purchased	**(693)**	346
Redemption of capital instruments (note 10)	**-**	(1,000)
Secured borrowing from securitization transactions	**557**	437
Change in deposits from Bank clients, net	**(895)**	1,703
Lease payments	**(98)**	(120)
Shareholder's dividends	**(5,600)**	(6,199)
Contributions from (distributions to) non-controlling interests, net	**(14)**	(51)
Common shares issued, net (note 11)	**1,200**	1,962
Notes receivable from related parties	**(4)**	419
Notes payable to related parties	**28**	6
Cash provided by (used in) financing activities	**(5,519)**	(2,497)
Cash and short-term securities		
Increase (decrease) during the year	**1,634**	(3,866)
Effect of foreign exchange rate changes on cash and short-term securities	**(409)**	585
Balance, beginning of year	**18,563**	21,844
Balance, end of year	**19,788**	18,563
Cash and short-term securities		
Beginning of year		
Gross cash and short-term securities	**19,081**	22,508
Net payments in transit, included in other liabilities	**(518)**	(664)
Net cash and short-term securities, beginning of year	**18,563**	21,844
End of year		
Gross cash and short-term securities	**20,242**	19,081
Net payments in transit, included in other liabilities	**(454)**	(518)
Net cash and short-term securities, end of year	**$ 19,788**	$ 18,563
Supplemental disclosures on cash flow information		
Interest received	**$ 12,777**	$ 11,941
Interest paid	**1,134**	596
Income taxes paid	**434**	1,238

The accompanying notes are an integral part of these Consolidated Financial Statements.

Note 1 Nature of Operations and Material Accounting Policy Information

(a) Reporting entity

The Manufacturers Life Insurance Company ("MLI") is a Canadian life insurance company and a wholly owned subsidiary of Manulife Financial Corporation ("MFC"), a publicly traded company. MLI and its subsidiaries (collectively, "Manulife" or the "Company") is a leading financial services group with principal operations in Asia, Canada and the United States. Manulife's international network of employees, agents and distribution partners offers financial protection and wealth management products and services to personal and business clients as well as asset management services to institutional customers. The Company operates as Manulife in Asia and Canada and as John Hancock and Manulife in the United States.

MLI is domiciled in Canada and incorporated under the Insurance Companies Act (Canada) ("ICA"). These Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and the accounting requirements of the Office of the Superintendent of Financial Institutions, Canada ("OSFI").

These Consolidated Financial Statements as at and for the year ended December 31, 2023 were authorized for issue by MLI's Board of Directors on February 14, 2024.

(b) Basis of preparation

The preparation of Consolidated Financial Statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities, and the disclosure of contingent assets and liabilities as at the date of the Consolidated Financial Statements, and the reported amounts of insurance service, investment result, and other revenue and expenses during the reporting periods. Actual results may differ from these estimates. The most significant estimation processes relate to evaluating assumptions used in measuring insurance and investment contract liabilities and reinsurance contracts held liabilities, assessing assets for impairment, determining pension and other post-employment benefit obligation and expense assumptions, determining income taxes and uncertain tax positions, and estimating fair values of certain invested assets. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the year in which the estimates are revised and in any future years affected. Although some variability is inherent in these estimates, management believes that the amounts recorded are appropriate. The material accounting policies used and the most significant judgments made by management in applying these accounting policies in the preparation of these Consolidated Financial Statements are summarized below.

The Company's results and operations have been and may continue to be adversely impacted by the economic environment. The adverse effects include but are not limited to recessionary economic trends in markets the Company operates in, significant market volatility, increase in credit risk, strain on commodity markets and alternative long duration asset ("ALDA") prices, foreign currency exchange rate volatility, increases in insurance claims, persistency and redemptions, and disruption of business operations. The breadth and depth of these events and their duration contribute additional uncertainty around estimates used in determining the carrying value of certain assets and liabilities included in these Consolidated Financial Statements.

The Company has applied appropriate measurement techniques using reasonable judgment and estimates from the perspective of a market participant to reflect current economic conditions. The impact of these techniques has been reflected in these Consolidated Financial Statements. Changes in the inputs used could materially impact the respective carrying values.

(c) Fair value measurement

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction (not a forced liquidation or distress sale) between market participants at the measurement date; fair value is an exit value.

When available, quoted market prices are used to determine fair value. If quoted market prices are not available, fair value is typically based upon alternative valuation techniques such as discounted cash flows, matrix pricing, consensus pricing services and other techniques. Broker quotes are generally used when external public vendor prices are not available.

The Company has a valuation process in place that includes a review of price movements relative to the market, a comparison of prices between vendors, and a comparison to internal matrix pricing which uses predominantly external observable data. Judgment is applied in adjusting external observable data for items including liquidity and credit factors.

The Company categorizes its fair value measurement results according to a three-level hierarchy. The hierarchy prioritizes the inputs used by the Company's valuation techniques based on their reliability. A level is assigned to each fair value measurement based on the lowest level input significant to the fair value measurement in its entirety. The three levels of the fair value hierarchy are defined as follows:

Level 1 – Fair value measurements that reflect unadjusted, quoted prices in active markets for identical assets and liabilities that the Company can access at the measurement date, reflecting market transactions.

Level 2 – Fair value measurements using inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. These include quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in inactive markets, inputs that are observable that are not prices (such as interest rates, credit risks, etc.) and inputs that are derived from or corroborated by observable market data. Most debt investments are classified within Level 2. Also, included in the Level 2 category are derivative instruments that are priced using models with observable market inputs, including interest rate swaps, equity swaps, credit default swaps and foreign currency forward contracts.

Level 3 – Fair value measurements using significant non-market observable inputs. These include valuations for assets and liabilities that are derived using data, some or all of which is not market observable, including assumptions about risk. Level 3 security valuations include less liquid investments such as real estate, other invested assets, timber investments held within segregated funds, certain long-duration bonds and other investments that have little or no price transparency. Certain derivative financial instrument valuations are also included in Level 3.

(d) Basis of consolidation

MLI consolidates the financial statements of all entities it controls, including certain structured entities. Subsidiaries are entities controlled by the Company. The Company has control over an entity when the Company has the power to govern the financial and operating policies of the entity and is exposed to variable returns from its activities which are significant in relation to the total variable returns of the entity and the Company is able to use its power over the entity to affect the Company's share of variable returns of the entity. In assessing control, significant judgment is applied while considering all relevant facts and circumstances. When assessing decision making power over an entity, the Company considers the extent of its rights relative to the management of the entity, the level of voting rights held over the entity which are potentially or presently exercisable, the existence of any contractual management agreements which may provide the Company with power over the entity's financial and operating policies, and to the extent of other parties' ownership in the entity, if any, the possibility for de facto control being present. When assessing variable returns from an entity, the Company considers the significance of direct and indirect financial and non-financial variable returns to the Company from the entity's activities in addition to the proportionate significance of such returns to the total variability of the entity. The Company also considers the degree to which its interests are aligned with those of other parties investing in the entity and the degree to which the Company may act in its own interest while interacting with the entity.

The financial statements of subsidiaries are included in MLI's consolidated results from the date control is established and are excluded from consolidation from the date control ceases. The initial control assessment is performed at inception of the Company's involvement with the entity and is reconsidered if the Company acquires or loses power over key operating and financial policies of the entity; acquires additional interests or disposes of interests in the entity; the contractual arrangements of the entity are amended such that the Company's proportionate exposure to variable returns changes; or if the Company's ability to use its power to affect its variable returns from the entity changes. A change in control may lead to gains or losses on derecognition of a subsidiary when losing control, or on derecognition of previous interests in a subsidiary when gaining control.

The Company's Consolidated Financial Statements have been prepared using uniform accounting policies for like transactions and events in similar circumstances. Intercompany balances, and revenue and expenses arising from intercompany transactions, have been eliminated in preparing the Consolidated Financial Statements.

Non-controlling interests are interests of other parties in the equity of MLI's subsidiaries and are presented within total equity, separate from the equity of MLI's participating policyholders and shareholder. Non-controlling interests in the net income and other comprehensive income ("OCI") of MLI's subsidiaries are included in total net income and total OCI, respectively. An exception to this occurs where the subsidiary's shares are either puttable by the other parties or are redeemable for cash on a fixed or determinable date, in which case other parties' interests in the subsidiary's capital are

presented as liabilities of the Company and other parties' interests in the subsidiary's net income and OCI are recorded as expenses of the Company.

The equity method of accounting is used to account for entities over which the Company has significant influence or joint control ("associates" or "joint ventures"), whereby the Company records its share of the associate's or joint venture's net assets and financial results using uniform accounting policies for similar transactions and events. Significant judgment is used to determine whether voting rights, contractual management rights and other relationships with the entity, if any, provide the Company with significant influence or joint control over the entity. Gains and losses on the sale of associates or joint ventures are included in income when realized, while impairment losses are recognized immediately when there is objective evidence of impairment. Gains and losses on commercial transactions with associates or joint ventures are eliminated to the extent of the Company's interest in the equity of the associate or joint venture. Investments in associates and joint ventures are included in other invested assets on the Company's Consolidated Statements of Financial Position.

(e) Invested assets

Invested assets are recognized initially at fair value plus, in the case of investments not classified as fair value through profit or loss ("FVTPL"), directly attributable transaction costs. Invested assets that are considered financial instruments are classified as fair value through other comprehensive income ("FVOCI"), FVTPL or as amortized cost. The Company determines the classification of its financial assets at initial recognition.

The classification of invested assets which are financial instruments depends on their contractual terms and the Company's business model for managing the assets.

The Company assesses the contractual terms of the assets to determine whether their terms give rise on specified dates to cash flows that are solely payments of principal and interest ("SPPI") on the principal amount outstanding. Only debt instruments may have SPPI cash flows. The most significant elements of interest within a lending arrangement are typically the consideration for the time value of money and credit risk. To make the SPPI assessment, the Company applies judgement and considers relevant factors such as prepayment and redemption rights, conversion features, and subordination of the instrument to other instruments of the issuer. An asset with contractual terms that introduce a more than de minimis exposure to risks of not collecting principal or interest would not meet the SPPI test.

Debt instruments which qualify as having SPPI cash flows are classified as amortized cost or FVOCI based on the business model under which they are held. If held within a business model whose objective is to hold the assets in order to collect contractual cash flows, they are classified as amortized cost. If held within a business model whose objective is achieved by both collecting contractual cash flows and selling the assets, they are classified as FVOCI. In either case, the Company may designate them as FVTPL in order to reduce accounting mismatches with FVTPL liabilities they support. Debt instruments which fail the SPPI test are required to be measured at FVTPL. To identify the business model financial assets are held within, considerations include the business purpose of the portfolio they are held within, the risks that are being managed and the business activities which manage the risks, the basis on which performance of the portfolio is being evaluated, and the frequency and significance of sales activity within the portfolio.

Realized and unrealized gains and losses on debt instruments classified as FVTPL and realized gains and losses on debt instruments held at FVOCI or amortized cost are recognized in investment income immediately. Unrealized gains and losses on FVOCI debt investments are recorded in OCI, except for unrealized gains and losses on foreign currency translation which are included in income.

Investments in equities which are accounted for as financial instruments are not subject to the SPPI test and are accounted for as FVTPL.

Valuation methods for the Company's invested assets are described above in note 1 (c). All fair value valuations are performed in accordance with IFRS 13 "Fair Value Measurement". Disclosure of financial instruments carried at fair value within the three levels of the fair value hierarchy and disclosure of the fair value for financial instruments not carried at fair value on the Consolidated Statements of Financial Position are presented in note 4. Fair value valuations are performed by the Company and by third-party service providers. When third-party service providers are engaged, the Company performs a variety of procedures to corroborate pricing information. These procedures may include, but are not limited to, inquiry and review of valuation techniques, and of inputs to the valuation and vendor controls reports.

Cash and short-term securities comprise cash, current operating accounts, overnight bank and term deposits, and debt instruments held for meeting short-term cash commitments. Short-term securities are carried at fair value. Short-term securities comprise investments due to mature within one year of the date of purchase. Commercial paper and discount notes are classified as Level 2 for fair value purposes because these instruments are typically not actively traded. Net payments in transit and overdraft bank balances are included in other liabilities.

Debt securities are carried at fair value or amortized cost. Debt investments are generally valued by independent pricing vendors using proprietary pricing models incorporating current market inputs for similar investments with comparable terms and credit quality (matrix pricing). The significant inputs include, but are not limited to, yield curves, credit risks and spreads, prepayment rates and volatility of these inputs. Debt investments are classified as Level 2 but can be Level 3 if significant inputs are not market observable.

Public equities comprise of common and preferred equities and shares or units of mutual funds and are carried at fair value. Public equities are generally classified as Level 1, as fair values are normally based on quoted market prices. Realized and unrealized gains and losses on equities designated as FVTPL are recognized in investment income immediately. The Company's risk management policies and procedures related to equities can be found in the denoted components of the "Risk Management and Risk Factors" section of the Company's 2023 Management's Discussion and Analysis ("MD&A").

Mortgages are classified as Level 3 for fair value purposes due to the lack of market observability of certain significant valuation inputs.

The Company accounts for insured and uninsured mortgage securitizations as secured financing transactions since the criteria for sale accounting of securitized mortgages are not met. For these transactions, the Company continues to recognize the mortgages and records a liability in other liabilities for the amounts owed at maturity. Interest income from these mortgages and interest expense on the borrowings are recorded using the effective interest rate ("EIR") method.

Private placements, which include corporate loans for which there is no active market, are generally classified as Level 2 for fair value disclosure purposes or as Level 3 if significant inputs are not market observable.

Loans to Manulife Bank of Canada ("Manulife Bank" or "Bank") clients are carried at amortized cost and are classified as Level 2 for fair value disclosure purposes.

Interest income is recognized on all debt instruments including securities, private placements, mortgages, and loans to Bank clients as it accrues and is calculated using the EIR method. Premiums, discounts and transaction costs are amortized over the life of the underlying investment using the effective yield method for all debt securities as well as private placements and mortgages.

The Company records purchases and sales of invested assets on a trade date basis. Loans originated by the Company are recognized on a settlement date basis.

Real estate consists of both own use and investment property. Own use property is carried at cost less accumulated depreciation and any accumulated impairment losses, or at revalued amount which is the fair value as at the most recent revaluation date minus accumulated amortization and any accumulated impairment losses. Depreciation is calculated based on the cost of an asset less its residual value and is recognized in income on a straight-line basis over the estimated useful life ranging from 30 to 60 years. Impairment losses are recorded in income to the extent the recoverable amount is less than the carrying amount. Own use property is classified as Level 3 for fair value disclosure purposes. Own use real estate properties which are underlying items for insurance contracts with direct participating features are measured at fair value as if they were investment properties, as permitted by IAS 16 "Property, Plant and Equipment" which was amended by IFRS 17 "Insurance Contracts" ("IFRS 17").

An investment property is a property held to earn rental income, for capital appreciation, or both. Investment properties are measured at fair value, with changes in fair value recognized in income. Fair value of own use properties and investment properties is determined using the same processes. Fair value for all properties is determined using external appraisals that are based on the highest and best use of the property. The valuation techniques include discounted cash flows, the direct capitalization method as well as comparable sales analysis and employ both observable and non-market observable inputs. Inputs include existing and assumed tenancies, market data from recent comparable transactions, future economic outlook and market risk assumptions, capitalization rates and internal rates of return. Investment properties are classified as Level 3 for fair value disclosure purposes.

When a property transfers from own use held at cost to investment property, any gain or loss arising on the re-measurement of the property and any associated leases to fair value as at the date of change in use is recognized in OCI, to the extent that it is not reversing a previous impairment loss. Reversals of impairment losses are recognized in income. When a property changes from investment property to own use held at cost, the property's deemed cost for subsequent accounting is its fair value as at the date of change in use.

Other invested assets include private equity investments and property investments held in infrastructure, timber, agriculture and energy sectors. Private equity investments are accounted for as associates or joint ventures using the equity method (as described in note 1 (d) above) or are classified as FVTPL and carried at fair value. Timber and agriculture properties which are own use properties are carried at cost except for their biological assets which are measured at fair value. Timber

and agriculture properties which are investment properties are measured at fair value with changes in fair value recognized in income. The fair value of other invested assets is determined using a variety of valuation techniques as described in note 4. Other invested assets that are measured or disclosed at fair value are classified as Level 3.

Other invested assets also include investments in leveraged leases, which are accounted for using the equity method. The carrying value under the equity method reflects the amortized cost of the lease receivable and related non-recourse debt using the effective yield method.

Expected Credit Loss Impairment

The expected credit loss ("ECL") impairment allowance model applies to invested assets which are debt instruments and measured at FVOCI or amortized cost. ECL allowances are measured under four probability-weighted macroeconomic scenarios, which measure the difference between all contractual cash flows that are due to the Company in accordance with the contract and all the cash flows that the Company expects to receive, discounted at the original EIR. This process includes consideration of past events, current market conditions and reasonable supportable information about future economic conditions. Forward-looking macroeconomic variables used within the estimation models represent variables that are the most closely related with credit losses in the relevant portfolio.

The estimation and measurement of impairment losses requires significant judgement. These estimates are driven by many elements, changes in which can result in different levels of allowances. Elements include the estimation of the amount and timing of future cash flows, the Company's criteria for assessing if there has been a significant increase in credit risk ("SICR"), the selection of forward-looking macroeconomic scenarios and their probability weights, the application of expert credit judgment in the development of the models, inputs and, when applicable, overlay adjustments. It is the Company's practice to regularly review its models in the context of actual loss experience and adjust when necessary. The Company has implemented formal policies, procedures, and controls over all significant impairment processes.

The Company's definitions of default and credit-impaired are based on quantitative and qualitative factors. A financial instrument is considered to be in default when significant payments of interest, principal or fees are past due for more than 90 days, unless remedial arrangements with the issuer are in place. A financial instrument may be credit-impaired as a result of one or more loss events that occurred after the date of initial recognition of the instrument and the loss event has a negative impact on the estimated future cash flows of the instrument. This includes events that indicate or include: significant financial difficulty of the counterparty; a breach of contract; for economic or contractual reasons relating to the counterparty's financial difficulty, concessions are granted that would not otherwise be considered; it is becoming probable that the counterparty will enter bankruptcy or other financial reorganization; the disappearance of an active market for that financial asset because of the counterparty's financial difficulties; or the counterparty is considered to be in default by any of the major rating agencies such as S&P, Moody's and Fitch.

The ECL calculations include the following elements:

- Probability of default ("PD") is an estimate of the likelihood of default over a given time horizon.
- Loss given default ("LGD"), is an estimate of the loss arising on a future default. This is based on the difference between the contractual cash flows due and those that the Company expects to receive, including from collateral. It is based on credit default studies performed based on internal credit experience.
- Exposure at default ("EAD"), is an estimate of the exposure at a future default date, considering both the period of exposure and the amount of exposure at a given reporting date. The EADs are determined by modelling the range of possible exposure outcomes at various points in time, corresponding to the multiple economic scenarios. The probabilities are then assigned to each economic scenario based on the outcome of the models.

The Company measures ECLs using a three-stage approach:

- Stage 1 comprise all performing financial instruments that have not experienced a SICR since initial recognition. The determination of SICR varies by instrument and considers the relative change in the risk of default since origination. 12-month ECLs are recognized for all Stage 1 financial instruments. 12-month ECLs represent the portion of lifetime ECLs that result from default events possible within 12 months of the reporting date. These expected 12-month default probabilities are applied to a forecast EAD, multiplied by the expected LGD, and discounted by the original EIR. This calculation is made for each of four macroeconomic scenarios.
- Stage 2 comprise all performing financial instruments that have experienced a SICR since original recognition or have become 30 days in arrears for principal or interest payments, whichever happens first. When assets move to Stage 2, full lifetime ECLs are recognized, which represent ECLs that result from all possible default events over the remaining lifetime of the financial instrument. The mechanics are consistent with Stage 1, except PDs and LGDs are estimated over the remaining lifetime of the instrument instead of over the coming year. In subsequent

reporting periods, if the credit risk of a financial instrument improves such that there is no longer a SICR compared to credit risk at initial recognition, the financial instrument will migrate back to Stage 1 and 12-month ECLs will be recognized.

- Stage 3 comprise financial instruments identified as credit-impaired. Similar to Stage 2 assets, full lifetime ECLs are recognized for Stage 3 financial instruments, but the PD is set at 100%. A Stage 3 ECL is calculated using the unpaid principal balance multiplied by LGD which reflects the difference between the asset's carrying amount and its discounted expected future cash flows.

Interest income is calculated based on the gross carrying amount for both Stage 1 and 2 exposures. Interest income on Stage 3 financial instruments is determined by applying the EIR to the amortized cost of the instrument, which represents the gross carrying amount adjusted for the credit loss allowance.

For Stage 1 and Stage 2 exposures, an ECL is generated for each individual exposure; however, the relevant parameters are modelled on a collective basis with all collective parameters captured by the individual security level. The exposures are grouped into smaller homogeneous portfolios, based on a combination of internal and external characteristics, such as origination details, balance history, sector, geographic location, and credit history. Stage 3 ECLs are either individually or collectively assessed, depending on the nature of the instrument and impairment.

In assessing whether credit risk has increased significantly, the risk of default occurring is compared over the remaining expected life from the reporting date and as at the date of initial recognition. The assessment varies by instrument and risk segment. The assessment incorporates internal credit risk ratings and a combination of security-specific and portfolio-level assessments, including the incorporation of forward-looking macroeconomic data. The assessment of SICR considers both absolute and relative thresholds. If contractual payments are more than 30 days past due, the credit risk is automatically deemed to have increased significantly since initial recognition.

When estimating ECLs, the four probability-weighted macroeconomic scenarios are considered. Economic forward-looking inputs vary by market. Depending on their usage in the models, macroeconomic inputs are projected at the country, province, or more granular level. Each macroeconomic scenario used includes a projection of all relevant macroeconomic variables for a five-year period, subsequently reverting to long-run averages. In order to achieve an unbiased estimate, economic data used in the models is supplied by an external source. This information is compared to other publicly available forecasts, and the scenarios are assigned a probability weighting based on statistical analysis and management judgment. Refer to note 9 (c).

The inputs and models used for calculating ECLs may not always capture all characteristics of the market at the date of the Consolidated Financial Statements.

Changes in the required ECL allowance are recorded in the provision for credit losses in the Consolidated Statements of Income. Invested assets are written off, either partially or in full, against the related allowance for credit losses when there is no realistic prospect of recovery in respect of those amounts. This is considered a partial or full derecognition of the financial asset. In subsequent periods, any recoveries of amounts previously written off are credited to the provision for credit losses.

(f) Goodwill and intangible assets

Goodwill represents the difference between the fair value of purchase consideration of an acquired business and the Company's proportionate share of the net identifiable assets acquired. It is initially recorded at cost and subsequently measured at cost less any accumulated impairment.

Goodwill is tested for impairment at least annually and whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable at the cash generating unit ("CGU") or group of CGUs level. The Company allocates goodwill to CGUs or group of CGUs for impairment testing at the lowest level within the Company where the goodwill is monitored for internal management purposes. The allocation is made to those CGUs or group of CGUs that are expected to benefit from the business combination in which the goodwill arose. Any potential impairment of goodwill is identified by comparing the recoverable amount with the carrying value of a CGU or group of CGUs. Goodwill is reduced by the amount of deficiency, if any. If the deficiency exceeds the carrying amount of goodwill, the carrying values of the remaining assets in the CGU or group of CGUs are subject to being reduced by the remaining deficiency on a pro-rata basis.

The recoverable amount of a CGU or group of CGUs is the higher of the estimated fair value less costs to sell or the value-in-use of the CGU or group of CGUs. In assessing value-in-use, estimated future cash flows are discounted using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the CGU or group of CGUs. In some cases, the most recent detailed calculation made in a prior period of a recoverable amount is used in the current period impairment testing. This is the case only if there are no significant changes to the CGU or group of CGUs, the

likelihood of impairment is remote based on the analysis of current events and circumstances, and the most recently calculated recoverable amount substantially exceeded the current carrying amount of the CGU or group of CGUs.

Intangible assets with indefinite useful lives include the John Hancock brand name, certain investment management contracts and certain agricultural water rights. The indefinite useful life assessment for the John Hancock brand name is based on the brand name being protected by indefinitely renewable trademarks in markets where branded products are sold, and for certain investment management contracts based on the ability to renew these contracts indefinitely. In addition, there are no legal, regulatory or contractual provisions that limit the useful lives of these intangible assets. Certain agricultural water rights are held in perpetuity. An intangible asset with an indefinite useful life is not amortized but is subject to an annual impairment test which is performed more frequently if an indication that it is not recoverable arises.

Intangible assets with finite useful lives include acquired distribution networks, customer relationships, capitalized software, and certain investment management contracts and other contractual rights. Distribution networks, customer relationships, and other finite life intangible assets are amortized over their estimated useful lives, six to 68 years, either based on straight-line or in relation to other asset consumption metrics. Software intangible assets are amortized on a straight-line basis over their estimated useful lives of three to 10 years. Finite life intangible assets are assessed for indicators of impairment at each reporting period. If indication of impairment arises, these assets are tested for impairment.

(g) Miscellaneous assets

Miscellaneous assets include assets held in a rabbi trust with respect to unfunded defined benefit obligations, defined benefit assets and capital assets. Rabbi trust assets are carried at fair value. Defined benefit assets carrying value is explained in note 1 (o). Capital assets are carried at cost less accumulated amortization computed on a straight-line basis over their estimated useful lives, which vary from two to 10 years.

(h) Segregated funds

The Company manages segregated funds on behalf of policyholders, which are presented as segregated funds net assets with offsetting insurance and investment contract liabilities for account of segregated fund holders in the amount of their account balances. The investment returns on these funds are passed directly to policyholders. In some cases, the Company has provided guarantees associated with these funds. Amounts invested by the Company in segregated funds for seed purposes are presented within invested asset categories based on the nature of the underlying investments.

Segregated funds net assets are measured at fair value and include investments in mutual funds, debt securities, equities, cash, short-term investments and other investments. With respect to the consolidation requirement of IFRS, in assessing the Company's degree of control over the underlying investments, the Company considers the scope of its decision-making rights, the rights held by other parties, its remuneration as an investment manager and its exposure to variability of returns from the investments. The Company has determined that it does not have control over the underlying investments as it acts as an agent on behalf of segregated fund policyholders.

The methodology applied to determine the fair value of investments held in segregated funds is consistent with that applied to invested assets held by the general fund, as described above in note 1 (e). Segregated funds liabilities are measured based on the value of the segregated funds net assets. Investment returns on segregated funds assets are passed directly to policyholders and the Company does not bear the risk associated with these assets outside of guarantees offered on certain variable life and annuity products, for which the underlying investments are held within segregated funds.

Some of the Company's liabilities for account of segregated fund holders arise from insurance contracts that it issues. These are reported as Insurance contract liabilities for account of segregated fund holders, representing the Company's obligation to pay the policyholder an amount equal to the fair value of the underlying items, and are measured at the aggregate of policyholder account balances. Changes in fair value of these liabilities are reported as Financial changes related to insurance and investment contract liabilities for account of segregated fund holders in the Consolidated Statements of Income. Other liabilities associated with these insurance contracts, such as those associated with guarantees provided by the Company as a result of certain variable life and annuity contracts, are included in Insurance contract assets or Insurance contract liabilities, excluding those for account of segregated fund holders on the Consolidated Statements of Financial Position. The Company holds assets supporting these guarantees in the general fund, which are included in invested assets according to their investment type.

The remaining liabilities for account of segregated fund holders do not arise from insurance contracts that the Company issues, and are reported as Investment contract liabilities for account of segregated fund holders on the Consolidated Statements of Financial Position. These are also measured at the aggregate of policyholder account balances and changes in fair value of these liabilities are reported as Financial changes related to insurance and investment contract liabilities for account of segregated fund holders in the Consolidated Statements of Income.

(i) Insurance contract liabilities and reinsurance contract assets

Scope and Classification

Contracts issued by the Company are classified as insurance, investment, or service contracts at initial recognition. Insurance contracts are contracts under which the Company accepts significant insurance risk from a policyholder. A contract is considered to have significant insurance risk if an insured event could cause the Company to pay significant additional amounts in any single scenario with commercial substance. The additional amounts refer to the present value of amounts that exceed those that would be payable if no insured event had occurred.

Reinsurance contracts held are contracts held by the Company under which it transfers significant insurance risk related to underlying insurance contracts to other parties, along with the associated premiums. The purpose of the reinsurance contracts held is to mitigate the significant insurance risk that the Company may have from the underlying insurance contracts.

Both insurance and reinsurance contracts are accounted for in accordance with IFRS 17. Contracts under which the Company does not accept significant insurance risk are either classified as investment contracts or considered as service contracts and are accounted for in accordance with IFRS 9 "Financial Instruments" ("IFRS 9") or IFRS 15 "Revenue from Contracts with Customers" ("IFRS 15"), respectively.

Insurance contracts are classified as direct participation contracts or contracts without direct participation features based on specific criteria. Insurance contracts with direct participation features are insurance contracts that are substantially investment-related service contracts under which the Company promises an investment return based on underlying items. They are viewed as creating an obligation to pay policyholders an amount that is equal to the fair value of the underlying items, less a variable fee for service.

Separation of components

At inception of insurance and reinsurance contracts held, the Company analyses whether they contain the following components that are separated and accounted for under other IFRS standards:

- Derivatives embedded within insurance contracts which contains risks and characteristics that are not closely related to those of the host contract, unless the embedded derivative itself meets the definition of an insurance contract;
- Distinct investment components which represent cash flows paid (received) in all circumstances regardless of whether an insured event has occurred or not. Investment components are distinct if they are not highly interrelated with insurance component cash flows and if they could be issued on a standalone basis; and
- Distinct service components which are promises to transfer goods or non-insurance services if the policyholder can benefit from it either on its own or with other resources that are readily available to the policyholder. The service components are distinct if they are not highly interrelated with the insurance components and the Company provides no significant service in integrating the service component with the insurance component.

The Company applies IFRS 17 to all remaining components of the insurance and reinsurance contracts held.

Level of aggregation

Insurance contracts are aggregated into portfolios of insurance contracts which are managed together and are subject to similar risks. The Company has defined portfolios by considering various factors such as the issuing subsidiary, measurement model, major product line and type of insurance risk. The portfolios of insurance contracts are further grouped by:

- Date of issue: the period cannot be longer than one year. Most of the Company's insurance contracts are aggregated into annual cohorts; and
- Expected profitability at inception into one of three categories: onerous contracts, contracts with no significant risk of becoming onerous and other remaining contracts. Onerous contracts are those contracts that at initial inception, the Company expects to generate net outflow, without considering investment returns or the benefit of any reinsurance contracts held.

The Company establishes the groups at initial recognition and may add contracts to the groups after the end of a reporting period, however, the Company does not subsequently reassess the composition of the groups.

For reinsurance contracts held, the portfolios align with the direct insurance contract portfolios. Groups of reinsurance contracts typically comprise a single reinsurance contract, and similar to direct groups they do not contain contracts issued more than one year apart.

Cash flows within the contract boundaries

The Company includes in the measurement of a group of insurance contracts and reinsurance contracts held, all future cash flows within the boundary of the contracts in the group. Cash flows are within the boundary of an insurance contract (and a reinsurance contract held) if they arise from substantive rights and obligations that exist in which the Company can compel the policyholder to pay the premiums (or is compelled to pay amounts to a reinsurer) or has a substantive obligation to provide services to policyholder (or a substantive right to receive services from a reinsurer).

For insurance contracts, a substantive obligation to provide services ends when the Company has the practical ability to reassess the risks and as a result, can set a new price or level of benefits that fully reflects those risks.

For reinsurance contracts held, a substantive right to receive services ends when the reinsurer has the practical ability to reassess the risk transferred to it and can set a new price or level of benefits that fully reflects those risks, or the reinsurer can terminate the coverage.

Measurement models

There are three measurement models for insurance contracts:

- Variable fee approach ("VFA"): The Company applies this approach to insurance contracts with direct participation features such as participating life insurance contracts, unit linked contracts, and variable annuity contracts. The direct participating feature is identified at inception, where the Company has the obligation to pay the policyholder an amount equal to the fair value of the underlying items less a variable fee in exchange for investment services provided.
- Premium allocation approach ("PAA"): The Company applies this simplified approach for certain insurance contracts and reinsurance contracts with duration of typically one year or less, such as Canadian Group Benefit products, some Canadian Affinity products, and some Asia short-term individual and group products.
- General measurement model ("GMM"): The Company applies this model to the remaining insurance contracts and reinsurance contracts not measured using the VFA or the PAA.

Recognition of insurance contracts

The Company recognizes groups of insurance contracts that it issues from the earliest of the following:

- The beginning of the coverage period of the group of contracts,
- The date when the first payment from a policyholder in the group is due or when the first payment is received if there is no due date, and
- For a group of onerous contracts, as soon as facts and circumstances indicate that the group is onerous.

Insurance contracts measured under the GMM and VFA measurement model

Initial measurement

The measurement of insurance contracts at initial recognition is the same for GMM or VFA. At initial recognition, the Company measures a group of insurance contracts as the total of: (a) fulfilment cash flows, and (b) a contractual service margin ("CSM").

Fulfilment cash flows comprise estimates of future cash flows, adjusted to reflect the time value of money and financial risks, and a risk adjustment for non-financial risk. In determining the fulfilment cash flows, the Company uses estimates and assumptions considering a range of scenarios which have commercial substance and give a fair representation of possible outcomes.

If fulfilment cash flows generate a total of net cash inflows at initial recognition, a CSM is set up to fully offset the fulfilment cash flows, and results in no impact on income at initial recognition. The CSM represents the unearned profit the Company will recognize as it provides services under the insurance contracts. However, if fulfilment cash flows generate a total of net cash outflows at initial recognition, a loss is recognized in income or expenses immediately and the group of contracts is considered to be onerous.

For Contracts with fulfillment cash flows in multiple foreign currencies the group of insurance contracts, including the contractual service margin, is considered to be denominated in a single currency. If a group of insurance contracts has cash flows in more than one currency, on initial recognition the company determines a single currency in which the multicurrency

group of contracts is denominated. The Company determines the single currency to be the currency of the predominant cash flows.

The unit of account for CSM or loss is on a group of contracts basis consistent with the level of aggregation specified above.

Subsequent measurement of fulfilment cash flows

The fulfilment cash flows at each reporting date are measured using the current estimates of expected cash flows and current discount rates. In the subsequent periods, the carrying amount of a group of insurance contracts at each reporting date is the sum of:

- The liability for remaining coverage ("LRC"), which comprise the fulfilment cash flows that relate to services to be provided in the future and any remaining CSM at that date; and
- The liability for incurred claims ("LIC"), which comprise the fulfilment cash flows for incurred claims and expenses that have not yet been paid.

For onerous contracts, the LRC is further divided into a loss component, which represents the remaining net outflow for the group of insurance contracts; and the LRC excluding the loss component, which represents the amount of liability with offsetting inflows.

Premiums received increases the LRC. Where a third-party administrator is involved in the collection and remittance of premiums, amounts receivable from the third-party are included in the measurement of insurance contract liabilities until actual cash is remitted to the Company.

Subsequent measurement of the CSM under the GMM measurement model

For contracts without direct participation features, when applying the GMM measurement model, the carrying amount of the CSM at end of the reporting period is adjusted to reflect the following changes:

(a) effect of new contracts added to the group;

(b) interest accreted on the carrying amount of CSM, measured at the locked-in discount rate. The locked-in discount rate is the weighted average of the rates applicable at the date of initial recognition of contracts that joined a group over a 12-month period, and is determined using the bottom-up approach;

(c) changes in fulfilment cash flows that relate to future services such as:

- Experience differences between actual and expected premiums and related cash flows at the beginning of the period measured at the locked-in rate.
- Non-financial changes in estimates of the present value of future cash flows measured at the locked-in rate.
- Changes in the risk adjustment for non-financial risk that relate to future service measured at the locked-in rate.
- Differences between actual and expected investment component that becomes payable in the period. The same applies to a policyholder loan that becomes repayable;

(d) effect of any currency exchange differences on the CSM;

(e) CSM amortization, which is the recognition of unearned profit into insurance revenue for services provided in the period. The CSM is recognized into insurance revenue over the duration of the group of insurance contracts based on the respective coverage units as insurance services are provided. The number of coverage units is the quantity of services provided by the contracts in the group, determined by considering the quantity of benefits provided and its expected coverage period. The coverage units are reviewed and updated at each reporting date. The Company allocates the CSM equally to each coverage unit and recognizes the amount allocated to coverage units provided and expected to be provided in each period.

When measuring the fulfilment cash flows, changes that relate to future services are measured using the current discount rate, however, the CSM is adjusted for these changes using the locked-in rate at initial recognition. The application of the two different discount rates gives rise to a gain or loss that is recognized as part of insurance finance income or expense.

Subsequent measurement of the CSM under the VFA measurement model

For contracts with direct participation features applying the VFA measurement model, subsequent measurement of the CSM is similar to the GMM model with the following exceptions or modifications:

For changes in fulfillment cash flows that do not vary with the underlying items:

- Non-financial changes adjust the CSM at the current discount rate, there is no interest accretion on CSM at the locked-in rate,
- Changes in the effect of the time value of money and financial risks such as the effect of financial guarantees adjust the CSM, however, income or expenses would be impacted if the risk mitigation option is elected.

For changes in fulfillment cash flows that vary with the fair value of the underlying items:

- Changes in the shareholder's share adjust the CSM, however, income or expenses would be impacted if the risk mitigation option is elected,
- Changes in the policyholders' share are recognized in income or expenses or OCI.

The Company uses derivatives, non-derivative financial instruments measured at fair value through profit or loss, and reinsurance contracts to mitigate the financial risk arising from direct participation contracts applying the VFA measurement model. The Company may elect the risk mitigation option to recognize some or all changes of financial guarantees and shareholder's share of the underlying items in income or expenses instead of adjusting CSM.

Groups of GMM or VFA insurance contracts with a CSM at initial recognition can subsequently become onerous when increases in fulfilment cash flows that do not vary with the underlying items or declines in the shareholder's share of the underlying items exceed the carrying amount of the CSM. The excess establishes a loss which is recognized in income or expenses immediately, and the LRC is then divided into the loss component and the LRC excluding the loss component.

Subsequent measurement of the loss component

The loss component represents the net outflow attributable to each group of onerous insurance contracts (or contracts profitable at inception that have subsequently become onerous), any subsequent decrease relating to future service in estimates of future cash flows and risk adjustment for non-financial risk or any subsequent increase the shareholder's share of the fair value of underlying items will reverse the loss component. Any remaining loss component will be reversed systematically as actual cash flows are incurred.

When actual cash flows are incurred, the LIC is recognized and the LRC is derecognized accordingly. The Company uses the proportion on initial recognition to determine the systematic allocation of LRC release between the loss component and the LRC excluding the loss component, resulting in both components being equal to zero by the end of the coverage period.

Insurance contracts measured under the PAA measurement

The Company applies the PAA to all insurance contracts it issues if the coverage period of the contract is one year or less; or the coverage period is longer than one year and the measurement of the LRC for the contracts under the PAA does not differ materially from the measurement that would be produced applying the GMM approach under possible future scenarios.

The LRC is initially measured as the premium received at initial recognition minus any insurance acquisition cash flows at that date. There is generally no allowance for the time value of money as the premiums are mostly received within one year of the coverage period.

For acquisition cash flows allocated to recognized groups of contracts applying the PAA, the Company is permitted to defer and amortize the amount over the coverage period or recognize the amount as an expense as incurred provided that the coverage period of the contracts in the group is no more than one year. This election can be made at the level of each group of insurance contracts. For the majority of the Company's insurance contracts applying the PAA, such as Canadian Group Benefit products, some Canadian Affinity products, and some Asia short term individual and group products, the Company has elected to defer directly attributable acquisition costs and recognize in net income over the coverage period in a systematic way based on the passage of time.

In these lines of business, directly attributable insurance acquisition cash flows paid are to acquire the current contract with an expectation of a number of renewals over future years. As such, directly attributable insurance acquisition cash flows are allocated to the group in which the current contract belongs to as well as to future groups that will include expected renewals applying a systematic methodology. If facts and circumstances indicate that there are onerous group of contracts at initial measurement, a loss is immediately recognized in the income or expenses for the net outflow and a loss component of the LRC is created for the group.

Subsequent measurement

Subsequently, the Company measures the carrying amount of the LRC at the end of each reporting period as:

- The LRC at beginning of the period; plus
- Premium received in the period; minus
- Directly attributable acquisition costs net of related amortization (unless expensed as incurred); minus
- Amount recognized as insurance revenue for the period; minus
- Investment component paid or transferred to the LIC.

The amount recognized as insurance revenue for the period is typically based on the passage of time. For the Company's property & casualty reinsurance business, the expected pattern of release of risk during the coverage period differs significantly from the passage of time and as such the amount recognized as insurance revenue is on the basis of the expected timing of incurred service expenses.

If at any time during the coverage period, facts and circumstances indicate that a group of contracts is onerous, the Company will recognize a loss in income or expenses and an increase in the LRC to the extent that the current estimate of the fulfilment cash flows that relate to remaining coverage (including the risk adjustment for non-financial risk) exceed the carrying amount of the LRC.

The Company estimates the LIC as the fulfilment cash flows related to incurred claims. The Company does not adjust the future cash flows for the time value of money, except when claims are expected to settle more than one year after the actual claim occurs.

Assets for insurance acquisition cash flows

Insurance acquisition cash flows arise from the costs of selling, underwriting and starting a group of insurance contracts (issued or expected to be issued) that are directly attributable to the portfolio of insurance contracts to which the group belongs.

Insurance acquisition cash flows paid or incurred before the recognition of the related group of contracts are recognized as an asset within the portfolio of insurance contract liabilities in which the group of contracts is expected to be included. The Company applies a systematic basis to allocate these costs which includes:

- Insurance acquisition cash flows directly attributable to a group of contracts that will include future expected renewals of in-force contracts; and
- Insurance acquisition cash flows directly attributable to a portfolio of insurance contracts, which will include future new business.

When facts and circumstances indicate the assets for insurance acquisition cash flows might be impaired, the Company conducts impairment tests. If an asset is impaired, an impairment loss will be recognized in income or expenses, which can be subsequently reversed when the impairment condition no longer exists.

Recognition of reinsurance contracts held

The Company recognizes a group of reinsurance contracts held from the earliest of the following:

- The beginning of the coverage period of the group of reinsurance contracts held. However, the Company delays the recognition of a group of reinsurance contracts held that provide proportionate coverage until the date when any underlying insurance contract is initially recognized, if that date is later than the beginning of the coverage period of the group of reinsurance contracts held, and
- The date the Company recognizes an onerous group of underlying insurance contracts if the Company entered into the related reinsurance contract held in the group of reinsurance contracts held at or before that date.

Reinsurance contracts held measured under the GMM model

Initial measurement

The measurement of reinsurance contracts held follows the same principles as the GMM for insurance contracts issued, with the following exceptions or modifications specified in this section below. Reinsurance contracts held and assumed cannot use the VFA measurement model.

At initial recognition, the Company recognizes any net gain or net cost as a CSM in the consolidated statement of financial position, with some exceptions. If any net cost of obtaining reinsurance contracts held relates to insured events that occurred before initial recognition of any insurance contracts, it is recognized immediately in income or expenses. In addition, if the underlying insurance contracts are in an onerous position, the Company is required to recognize a reinsurance gain immediately in income for the portion of claims that the Company expects to recover from the reinsurance, if the reinsurance contract held was entered into prior to or at the same time as the onerous contracts.

For contracts with fulfilment cash flows in multiple foreign currencies, the group is denominated in a single currency as defined by the predominant cash flows.

Measurement of reinsurance contract cash flows is consistent with the underlying insurance contracts, but with an adjustment for any risk of non-performance by the reinsurer. The risk adjustment for non-financial risk represents the amount of risk being transferred by the Company to the reinsurer.

Subsequent measurement

Subsequently, the carrying amount of a group of reinsurance contracts held at each reporting date is the sum of:

- The asset for remaining coverage ("ARC"), which comprise the fulfilment cash flows that relate to services to be received under the contracts in future periods, and any remaining CSM at that date; and
- The asset for incurred claims ("AIC"), which comprise the fulfilment cash flows for incurred claims and expenses that have not yet been received.

If the underlying insurance contracts are onerous at inception and a reinsurance gain is recognized in income as described above, the asset for remaining coverage is made up of a loss-recovery component and the ARC excluding the loss-recovery component. The loss-recovery component reflects changes in the loss component of the underlying onerous insurance contracts and determines the amounts that are subsequently presented in income or expenses as reversals of recoveries of losses from the reinsurance contracts held and are excluded from the allocation of reinsurance premiums paid.

The Company adjusts the carrying amount of the CSM of a group of reinsurance contracts held to reflect changes in the fulfillment cash flows applying the same approach as for insurance contracts issued, except:

- Income recognized to cover the losses from onerous underlying contracts also adjusts the carrying amount of CSM;
- Reversals of the loss-recovery component, to the extent that those reversals are not changes in fulfilment cash flows of the group of reinsurance contract held, also adjusts the carrying amount of CSM; and
- Changes in fulfilment cash flows related to future services also adjusts the carrying amount of CSM provided that changes in fulfillment cash flows related to the group of underlying insurance contracts also adjust the CSM.

Where a loss component has been set up subsequent to initial recognition of a group of underlying insurance contracts, the reinsurance gain that has been recognized adjusts the loss-recovery component of the reinsurance asset for remaining coverage. The carrying amount of the loss-recovery component must not exceed the portion of the carrying amount of the loss component of the onerous group of underlying insurance contracts that the Company expects to recover from the group of reinsurance contracts. On this basis, the loss-recovery component is reduced to zero when the loss component of underlying insurance contracts is reduced to zero.

Reinsurance contracts held measured under the PAA model

Reinsurance contracts held may be classified and measured under the PAA model if they meet the eligibility requirements, which are similar to the PAA requirements for direct insurance contracts.

For reinsurance contracts held applying the PAA model, the Company measures them on the same basis as insurance contracts that it issues, adapted to reflect the features of reinsurance contracts held that differ from insurance contracts issued.

If a loss-recovery is created for a group of reinsurance contracts measured under the PAA, the Company adjusts the carrying amount of the ARC as there is no CSM to adjust under PAA.

Derecognition of insurance contracts

The Company derecognizes insurance contracts when the rights and obligations relating to the contract are extinguished (i.e., discharged, cancelled; or expired) or the contract is modified such that the modification results in a change in the measurement model, or the applicable standard for measuring a component of the contract. In the case of modification, the Company derecognizes the initial contract and recognizes the modified contract as a new contract.

Presentation and Disclosure

The Company has presented the carrying amount of portfolios of insurance contracts that are in a net asset or liability position, and portfolios of reinsurance contracts that are in a net asset or liability position separately in the consolidated statements of financial position.

The Company separately presents the insurance service result, which comprise insurance revenue and insurance service expenses, from the investment result, which comprise insurance finance income or expenses in the Consolidated Statements of Income. IFRS 17 provides an option to disaggregate the changes in risk adjustment between insurance service results and insurance finance income. The Company disaggregates the change in risk adjustment for non-financial risk between the insurance service expenses and insurance finance income or expenses.

Net insurance service result

The insurance revenue depicts the performance of insurance services and excludes investment components. For the GMM and the VFA contracts, the insurance revenue represents the change in the LRC relating to insurance services for which the Company expects to receive consideration. This insurance revenue comprises: (a) expected claims and other insurance expenses including policyholder taxes where applicable; (b) changes in risk adjustment for non-financial risk; (c) release of CSM based on coverage units; and (d) portion of premiums that relate to recovering of insurance acquisition cash flows. For contracts measured under the PAA, the insurance revenue for each period is the amount of expected premium receipts for providing insurance services in the period.

The insurance service expenses arising from insurance contracts are recognized in income or expenses generally as they are incurred and excludes repayment of investment components. The insurance service expenses comprise: (a) incurred claims and other insurance service expenses; (b) losses on onerous contracts and reversal of such losses; (c) adjustments to LIC; (d) amortization of insurance acquisition cash flows; and (e) impairment losses on assets for insurance acquisition cash flows, if any, and reversals of such impairment losses.

The amortization of insurance acquisition cash flows within insurance service expense is equal to the recovery of insurance acquisition cash flows in insurance revenue for contracts measured under the GMM and VFA. For contracts measured under the PAA with deferred acquisition cash flows, the Company amortizes insurance acquisition cash flows over the duration of the group of insurance contracts based on the respective coverage units.

Net expenses from reinsurance contracts held comprise allocation of reinsurance premiums paid and the amounts expected to be recovered from reinsurers. Reinsurance cash flows that are contingent on claims on the underlying contracts are treated as part of the claims expected to be recovered from reinsurers, whereas reinsurance cash flows that are not contingent on claims on the underlying contracts (for example, some types of ceding commissions) are treated as a reduction in reinsurance premiums paid. For reinsurance contracts measured under the GMM, the allocation of reinsurance premiums paid represents the total of the changes in the asset for remaining coverage that relate to services for which the Company expects to pay consideration. For reinsurance contracts measured under the PAA, the allocation of reinsurance premiums paid is the amount of expected premium payments for receiving services in the period.

Insurance finance income or expenses

Insurance finance income or expenses comprise the change in the carrying amount of the group of insurance contracts arising from: (a) the effect of the time value of money and changes in the time value of money; and (b) the effect of financial risk and changes in financial risk.

The Company disaggregates insurance finance income or expenses on insurance contracts issued for most of its groups of insurance contracts between income or expenses and OCI. The impact of changes in market interest rates on the value of the life insurance and related reinsurance assets and liabilities are reflected in OCI in order to minimize accounting mismatches between the accounting for insurance assets and liabilities and the supporting financial assets. The impacts from differences between current period rates and locked-in rates are presented in OCI.

The Company's invested assets which are debt instruments (including bonds, private placements, mortgages, and loans) are predominantly measured at FVOCI. As a result, the effect of the time value of money for the groups of insurance contracts and supporting fixed maturity assets is reflected in income or expenses and the effect of financial risk and changes in financial risk is reflected in OCI.

The systematic allocation of expected total insurance finance income or expenses depends on whether changes in assumptions that relate to financial risk have a substantial effect on the expected amounts paid to the policyholders.

- For groups of insurance contracts for which changes in assumptions that relate to financial risk do not have a substantial effect on the amounts paid to the policyholders, the Company systematically allocates expected total

insurance finance income or expenses over the duration of the group of contracts to income or expenses using discount rates determined on initial recognition of the group of contracts.

- For groups of insurance contracts for which changes in assumptions that relate to financial risk have a substantial effect on the amounts paid to the policyholders, the Company systematically allocates expected total insurance finance income or expenses over the duration of the group of contracts to income or expenses using either a constant rate, or an allocation that is based on the amounts credited in the period and expected to be credited in future periods for fulfillment cash flows. The CSM accretion rate would use the discount rates determined on initial recognition of the group of contracts for contractual service margin.

In the event of transfer of a group of insurance contracts or derecognition of an insurance contract, the Company reclassifies any amounts that were previously recognized in OCI to income or expenses as insurance finance income or expense. There are no changes in the basis of disaggregation of insurance finance income or expenses between income or expenses and OCI in the period.

(j) Investment contract liabilities

Investment contract liabilities include contracts issued to retail and institutional investors that do not contain significant insurance risk. Investment contract liabilities and deposits are measured at amortized cost or at FVTPL by election. The election is made when these liabilities as well as the related assets are managed, and their performance is evaluated, on a fair value basis or when doing so reduces the accounting mismatches between assets supporting these contracts and the related policy liabilities. Investment contract liabilities are derecognized when the contract expires, is discharged or is cancelled.

(k) Other financial instruments accounted for as liabilities

The Company issues a variety of other financial instruments classified as liabilities, including notes payable, term notes, senior notes, senior debentures, subordinated notes, surplus notes and preferred shares. These financial liabilities are measured at amortized cost, with issuance costs deferred and amortized using the effective interest rate method.

(l) Income taxes

The provision for income taxes is calculated based on income tax laws and income tax rates substantively enacted as at the date of the Consolidated Statements of Financial Position. The income tax provision is comprised of current income taxes and deferred income taxes. Current and deferred income taxes relating to items recognized in OCI and directly in equity are similarly recognized in OCI and directly in equity, respectively.

Current income taxes are amounts expected to be payable or recoverable for the current year and any adjustments to taxes payable in respect of previous years.

Deferred income taxes are provided for using the liability method and result from temporary differences between the carrying values of assets and liabilities and their respective tax bases. Deferred income taxes are measured at the substantively enacted tax rates that are expected to be applied to temporary differences when they reverse.

A deferred tax asset is recognized to the extent that future realization of the tax benefit is probable. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the tax benefit will be realized. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax assets and liabilities and they relate to income taxes levied by the same tax authority on the same taxable entity.

Deferred tax liabilities are recognized for all taxable temporary differences, except in respect of taxable temporary differences associated with investments in subsidiaries, associates and joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

The Company records liabilities for uncertain tax positions if it is probable that the Company will make a payment on tax positions due to examinations by tax authorities. These provisions are measured at the Company's best estimate of the amount expected to be paid. Provisions are reversed to income in the period in which management assesses they are no longer required or determined by statute.

The Company is subject to income tax laws in various jurisdictions. Tax laws are complex and potentially subject to different interpretations by the taxpayer and the relevant tax authority. The provision for current income taxes and deferred income taxes represents management's interpretation of the relevant tax laws and its estimate of current and future income tax implications of the transactions and events during the year. The Company may be required to change its provision for income taxes or deferred income tax balances when the ultimate deductibility of certain items is successfully challenged by taxing authorities, or if estimates used in determining the amount of deferred tax balances to recognize change significantly, or when receipt of new information indicates the need for adjustment in the amount of deferred income taxes to be recognized. Additionally, future events, such as changes in tax laws, tax regulations, or interpretations of such laws or regulations, could have an impact on the provision for income taxes, deferred tax balances and the effective tax rate. Any such changes could materially affect the amounts reported in the Consolidated Financial Statements in the period these changes occur.

(m) Foreign currency translation

Items included in the financial statements of each of the Company's subsidiaries, joint ventures and associates are measured by each entity using the currency of the primary economic environment in which the entity operates (the "functional currency"). If their functional currency is other than Canadian dollar, these entities are foreign operations of the Company.

Transactions in a foreign currency are translated to the functional currency at the exchange rate prevailing at the date of the transaction. Assets and liabilities denominated in foreign currencies are translated to the functional currency at the exchange rate in effect at the reporting date. Revenue and expenses denominated in foreign currencies are translated at the average exchange rate prevailing during the quarter reported. Exchange gains and losses are recognized in income except for translation of net investments in foreign operations and the results of hedging these positions, and for non-monetary items designated as amortized cost or FVOCI. These foreign exchange gains and losses are recognized in OCI until such time that the foreign operation or non-monetary item is disposed of or control or significant influence over it is lost, when they are reclassified to income.

The Consolidated Financial Statements are presented in Canadian dollars. The financial statements of the Company's foreign operations are translated from their functional currencies to Canadian dollars; assets and liabilities are translated at the exchange rate at the reporting date, and revenue and expenses are translated using the average exchange rates for the period.

(n) Stock-based compensation

The Company provides stock-based compensation to certain employees and directors as described in note 14. Compensation expense of equity instruments granted is accrued based on the best estimate of the number of instruments expected to vest, with revisions made to that estimate if subsequent information indicates that actual forfeitures are likely to differ from initial forfeiture estimates, unless forfeitures are due to market-based conditions.

Stock options are expensed with a corresponding increase in contributed surplus. Restricted share units and deferred share units are expensed with a corresponding liability accrued based on the market value of MFC's common shares at the end of each quarter. Performance share units are expensed with a corresponding liability accrued based on specific performance conditions and the market value of MFC's common shares at the end of each quarter. The change in the value of the awards resulting from changes in the market value of MFC's common shares or changes in the specific performance conditions and credited dividends is recognized in income, offset by the impact of total return swaps used to manage the variability of the related liabilities.

Stock-based compensation cost is recognized over the applicable vesting period, unless the employee is eligible to retire at the time of grant or will be eligible to retire during the vesting period. Compensation costs attributable to stock options, restricted share units, and performance share units granted to employees who are eligible to retire on the grant date or who will become eligible to retire during the vesting period, are recognized at the grant date or over the period from the grant date to the date of retirement eligibility, respectively.

The Company's contributions to the Global Share Ownership Plan ("GSOP") (refer to note 14), are expensed as incurred. Under the GSOP, subject to certain conditions, the Company will match a percentage of an employee's eligible contributions to certain maximums. All contributions are used by the plan's trustee to purchase MFC common shares in the open market on behalf of participating employees.

(o) Employee future benefits

The Company maintains defined contribution and defined benefit pension plans and other post-employment plans for employees and agents including registered (tax qualified) pension plans that are typically funded as well as supplemental non-registered (non-qualified) pension plans for executives, and retiree and disability welfare plans that are typically not funded.

The Company's obligation in respect of defined benefit pension and other post-employment benefits is calculated for each plan as the estimated present value of future benefits that eligible employees have earned in return for their service up to the reporting date using the projected benefit method. The discount rate used is based on the yield, as at the reporting date, of high-quality corporate debt securities that have approximately the same term as the benefit obligations and that are denominated in the same currency in which the benefits are expected to be paid.

To determine the Company's net defined benefit asset or liability, the defined benefit obligations are deducted from the fair value of plan assets. When this calculation results in a surplus, the asset that can be recognized is limited to the present value of future economic benefit available in the form of future refunds from the plan or reductions in future contributions to the plan (the asset limit). Defined benefit assets are included in other assets and defined benefit liabilities are included in other liabilities.

Changes in the net defined benefit asset or liability due to re-measurement of pension and retiree welfare plans are recorded in OCI in the period in which they occur and are not reclassified to income in subsequent periods. They consist of actuarial gains and losses, changes in the effect of the asset limit, if any, and the return on plan assets, excluding amounts included in net interest income or expense. Changes in the net defined benefit asset or liability due to re-measurement of disability welfare plans are recorded in income in the period in which they occur.

The cost of defined benefit pension plans is recognized over the employees' years of service to retirement while the cost of retiree welfare plans is recognized over the employees' years of service to their date of full eligibility. The net benefit cost for the year is recorded in income and is calculated as the sum of the service cost in respect of the fiscal year, the net interest income or expense and any applicable administration expenses, plus past service costs or credits resulting from plan amendments or curtailments. The net interest income or expense is determined by applying the discount rate to the net defined benefit asset or liability. The current year cost of disability welfare plans is the year-over-year change in the defined benefit obligation, including any actuarial gains or losses.

The cost of defined contribution plans is the contribution provided by the Company and is recorded in income in the periods during which services are rendered by employees.

(p) Derivative and hedging instruments

The Company uses derivative financial instruments ("derivatives") including swaps, forward and futures agreements, and options to manage current and anticipated exposures to changes in interest rates, foreign exchange rates, commodity prices and equity market prices, and to replicate exposure to different types of investments. Derivatives embedded in other financial instruments are separately recorded as derivatives when their economic characteristics and risks are not closely related to those of the host instrument, the terms of the embedded derivative are the same as those of a standalone derivative and the host instrument itself is not recorded at FVTPL. Derivatives which are separate financial instruments are recorded at fair value, and those with unrealized gains reported as derivative assets and those with unrealized losses reported as derivative liabilities.

A determination is made for each derivative as to whether to apply hedge accounting. Where hedge accounting is not applied, changes in the fair value of derivatives are recorded in investment income.

Where the Company has elected to apply hedge accounting, a hedging relationship is designated and documented at inception. Hedge effectiveness is evaluated at inception and throughout the term of the hedge. Hedge accounting is only applied when the Company expects that the risk management objective will be met, and that the hedging relationship will qualify for hedge accounting requirements both at inception and throughout the hedging period. The assessment of hedge effectiveness is performed at the end of each reporting period prospectively. When it is determined that the risk management objective is no longer met, a hedging relationship is no longer effective, or the hedging instrument or the hedged item ceases to exist, the Company discontinues hedge accounting prospectively. In such cases, if the derivatives are not sold or terminated, any subsequent changes in fair value of the derivatives are recognized in investment income.

For derivatives that are designated as hedging instruments, changes in fair value are recorded according to the nature of the risks being hedged, as discussed below.

In a fair value hedging relationship, changes in fair value of the hedging instruments are recorded in total investment result, offsetting changes in fair value of the hedged items attributable to the hedged risk, which would otherwise not be carried at fair value through profit or loss. Hedge ineffectiveness is recognized in total investment result and arises from differences between changes in the fair values of hedging instruments and hedged items. When hedge accounting is discontinued, the carrying value of the hedged item is no longer adjusted and the cumulative fair value adjustments are amortized to total investment result over the remaining term of the hedged item unless the hedged item ceases to exist, at which time the balance is recognized immediately in total investment result.

In a cash flow hedging relationship, the effective portion of the change in the fair value of the hedging instrument is recorded in OCI while the ineffective portion is recognized in total investment result. Gains and losses in AOCI are recognized in income during the same periods that the variability in the hedged cash flows or the hedged forecasted transactions are recognized in income. The reclassifications from AOCI are made to total investment result, except for total return swaps that hedge stock-based compensation awards, which are reclassified to general expenses.

Gains and losses on cash flow hedges in AOCI are reclassified immediately to total investment result when the hedged item ceases to exist or the forecasted transaction is no longer expected to occur. When a hedge is discontinued, but the hedged forecasted transaction is expected to occur, the amounts in AOCI are reclassified to total investment result in the periods during which variability in the cash flows hedged or the hedged forecasted transaction is recognized in income.

In a net investment in foreign operation hedging relationship, gains and losses relating to the effective portion of the hedge are recorded in OCI. Gains and losses in AOCI are recognized in income during the periods when gains or losses on the underlying hedged net investment in foreign operation are recognized in income upon disposal of the foreign operation or upon loss of control or significant influence over it.

(q) Revenue from service contracts

The Company recognizes revenue from service contracts in accordance with IFRS 15. The Company's service contracts generally impose single performance obligations, each consisting of a series of similar related services for each customer. Revenue is recorded as performance obligations are satisfied over time because the customers simultaneously receive and consume the benefits of the services rendered, measured using an output method. Revenue for variable consideration is recognized to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty is subsequently resolved. Refer to note 13.

Note 2 Accounting and Reporting Changes

(a) Changes in accounting and reporting policy

(I) IFRS 17 "Insurance Contracts"

IFRS 17 was issued in May 2017 to be effective for years beginning on January 1, 2021. Amendments to IFRS 17 were issued in June 2020 and included a two-year deferral of the effective date. IFRS 17 as amended, became effective for years beginning on January 1, 2023, to be applied retrospectively. If full retrospective application to a group of contracts is impracticable the modified retrospective or fair value methods may be used. The standard replaced IFRS 4 "Insurance Contracts" ("IFRS 4") and therefore replaced the Canadian Asset Liability Method ("CALM") and materially changed the recognition and measurement of insurance contracts and the corresponding presentation and disclosures in the Company's Consolidated Financial Statements.

Narrow-scope amendments to IFRS 17 were issued in December 2021 and were effective on initial application of IFRS 17 and IFRS 9 which the Company has adopted on January 1, 2023. The amendments reduce accounting mismatches between insurance contract liabilities and financial assets in scope of IFRS 9 within comparative prior periods when initially applying IFRS 17 and IFRS 9. The amendments allow insurers to present comparative information on financial assets as if IFRS 9 were fully applicable during the comparative period. The amendments do not permit application of IFRS 9 hedge accounting principles to the comparative period.

The Company adopted IFRS 17 on January 1, 2023, with an effective date of January 1, 2022. The Company has prepared an opening balance sheet as at January 1, 2022 under IFRS 17 in the Consolidated Statements of Financial Position. Any differences between the carrying value and the presentation of assets, liabilities and equity determined in accordance with CALM and IFRS 17, as at January 1, 2022, have been recorded in opening retained earnings and accumulated other comprehensive income. Refer to note 25 for adoption impact of IFRS 17.

The 2022 comparative figures and the opening Consolidated Statement of Financial Position as at January 1, 2022 as presented in these Consolidated Financial Statements have been restated, where indicated, for the adoption of IFRS 17. For

the Company's accounting policies for applying IFRS 17 to the Company's insurance and reinsurance contracts, refer to note 1 (i) and (j).

(II) IFRS 9 "Financial Instruments" and IFRS 7 "Financial Instruments: Disclosures"

IFRS 9 was issued in November 2009 and amended in October 2010, November 2013 and July 2014, and is effective for years beginning on or after January 1, 2018, to be applied retrospectively, or on a modified retrospective basis. Additionally, the IASB issued amendments in October 2017 that are effective for annual periods beginning on or after January 1, 2019. In conjunction with the amendments to IFRS 17 issued in June 2020, the IASB amended IFRS 4 to permit eligible insurers to apply IFRS 9 effective January 1, 2023, alongside IFRS 17. The standard replaced IAS 39 "Financial Instruments: Recognition and Measurement" ("IAS 39"). IFRS 9 addresses accounting and reporting principles for the classification and measurement of financial assets and financial liabilities, the impairment of financial assets and hedge accounting. IFRS 7 "Financial Instruments: Disclosures" ("IFRS 7") was amended in conjunction with IFRS 9 and IFRS 17, with expanded qualitative and quantitative disclosures related to financial instruments and became effective along with IFRS 9 and IFRS 17 on January 1, 2023.

The Company adopted IFRS 9 on January 1, 2023, as permitted under the June 2020 amendments to IFRS 4 "Insurance Contracts". The Company's accounting policies for invested assets, and derivative and hedging instruments in accordance with IFRS 9 are presented in note 1.

IFRS 9 does not require restatement of comparative periods and the Company has not done so. The Company elected the option under IFRS 17 to reclassify financial assets, including those held in respect of activities not connected to contracts within the scope of IFRS 17, on an instrument-by-instrument basis, for 2022 comparatives in order to align with the classifications on initial application of IFRS 9 as at January 1, 2023. These classification changes led the Company to present certain investment results previously reported in net investment income or OCI under IAS 39, within OCI or net investment income under IFRS 9, respectively. For 2022 comparative information, the Company did not apply IFRS 9's ECL impairment model or hedge accounting principles. With respect to these matters, the guidance contained in IAS 39 was maintained. In the case of assets previously classified as FVTPL under IAS 39 and classified as FVOCI or amortized cost under IFRS 9, no IAS 39 impairment was calculated for these Consolidated Financial Statements.

Consistent with IFRS 17 amendments, the adoption of IFRS 9 resulted in certain differences in the classification and measurement of financial assets when compared to their classification and measurement under IAS 39. The most significant classification changes included approximately $184 billion of debt securities previously classified as FVTPL which were classified as FVOCI under IFRS 9.

The Company has elected to apply the hedge accounting requirements under IFRS 9 to all designated hedge accounting relationships prospectively, with the exception to the cost of hedging guidance, that has been applied retrospectively for certain cash flow hedge and net investment hedge relationships. As at January 1, 2023, all existing IAS 39 hedge accounting relationships were assessed and qualified for hedge accounting under IFRS 9. These existing relationships are treated as continuing hedge accounting relationships under IFRS 9 on January 1, 2023 and are disclosed with comparative information for 2022 under IAS 39. Refer to note 5.

The Company has designated new hedge accounting relationships with the objective to reduce potential accounting mismatches between changes in the fair value of derivatives in income, and changes in fair value due to financial risk of insurance liabilities and financial assets in OCI. The incremental notional of derivatives designated in new hedge accounting relationships amounted to $232,637 on transition date. New hedge accounting relationships are effective prospectively on January 1, 2023.

The effects of adoption were as follows:

- Effects from applying IFRS 17 asset classification changes among FVTPL, AFS and amortized cost under IAS 39 to FVOCI and FVTPL under IFRS 9 resulted in a reduction in retained earnings of $10,645, net of tax, and an increase in OCI of $16,916, net of tax, as at January 1, 2022 when IFRS 17's transition option was elected. These were presented under "Opening adjustment of financial assets at adoption of IFRS 9 / IFRS 17" in the Consolidated Statements of Changes in Equity.
- The adoption of IFRS 9 resulted in recognition of ECL of $724. Loss allowances when applied to assets held at amortized cost reduce the carrying value of the assets and reduce equity. Loss allowances do not affect the fair value of assets held at FVOCI and therefore do not affect their carrying value. Loss allowances for assets held at FVOCI do not change total equity, instead result in movement between OCI and retained earnings.
- The impact of adopting IFRS 9's ECL impairment methodology resulted in a reduction to retained earnings of $409, net of tax, and an increase to AOCI of $408 net of tax, on January 1, 2023. This results from the derecognition of

loss allowances in accordance with IAS 39, and the recognition of ECL on FVOCI assets with reductions in retained earnings and corresponding increases in AOCI. For financial assets held at amortized cost and investment commitments, ECL was recognized with reductions in retained earnings.

- As at January 1, 2023, the retrospective application of IFRS 9 to the cost of hedging for currency basis spread resulted with a net $68 reclassification from cash flow hedge and foreign currency translation reserve to a new separate component of accumulated OCI, the cost of hedging. Other IFRS 9 hedge accounting principles had $nil impact as at January 1, 2023 for these Consolidated Financial Statements.
- The impact of changes made as at January 1, 2023 were presented under line items labeled "Opening adjustment of financial assets at adoption of IFRS 9 / IFRS 17" in the Consolidated Statements of Changes in Equity.

The implementation of IFRS 9 has been incorporated into the Company's Enterprise Risk Management Framework ("ERM") and supervised by the Executive Risk Committee ("ERC"). The integration of forward-looking information into the calculation of the ECL and the definition and evaluation of what constitutes a significant increase in credit risk ("SICR") of an investment are inherently subjective and involve the use of significant judgement. Therefore, the Company has developed a front-to-back governance framework over the ECL calculation and has designed controls and procedures to provide reasonable assurance that information is properly recorded. The Company has effective credit risk management processes in place that continue to be applicable and aim to ensure that the effects of economic developments are appropriately considered, mitigation actions are taken where required and risk appetite is reassessed and adjusted as needed.

The Company adopted IFRS 7 (as amended), which expanded qualitative and quantitative disclosures related to financial instruments on January 1, 2023. Refer to notes 4, 5 and 9.

The following table illustrates the impact on loss allowances for invested assets on transition from the incurred loss impairment under IAS 39 to the expected credit losses impairment allowance under IFRS 9.

	December 31, 2022 IAS 39 Impairment allowance	January 1, 2023 IFRS 9 ECL allowance
Debt securities at FVOCI under IFRS 9	**$ -**	**$ 348**
Private placements at FVOCI under IFRS 9	**-**	**255**
Private placements at amortized cost under IAS 39	**25**	**-**
Mortgages at FVOCI under IFRS 9	**-**	**83**
Mortgages at amortized cost under IAS 39	**10**	**-**
Other invested assets at FVOCI under IFRS 9	**-**	**13**
Financial assets at amortized cost under IFRS 9	**-**	**14**
Mortgages at amortized cost under IAS 39	**7**	**-**
Loans to Bank clients under IAS 39	**5**	**-**
Total on-balance sheet exposures	**47**	**713**
Allowance for credit losses on off-balance sheet exposures	**-**	**11**
Total	**$ 47**	**$ 724**

The following table shows financial liabilities under IAS 39 and the impact of classification and measurement changes on adoption of IFRS 9.

	Measurement category	December 31, 2022 IAS 39 Total carrying value	Impact of classification and measurement changes[(1),(2)]	January 1, 2023 IFRS 9 Total carrying value
Investment contract liabilities	FVTPL	**$ 796**	**$ 2**	**$ 798**
	Amortized cost	**2,452**	**6,829**	**9,281**
Deposits from Bank clients	Amortized cost	**22,507**	**-**	**22,507**
Derivative liabilities	FVTPL	**14,366**	**-**	**14,366**
Note payable to related party	Amortized cost	**135**	**-**	**135**
Other liabilities	Amortized cost	**17,202**	**1,474**	**18,676**
Capital instruments	Amortized cost	**1,262**	**-**	**1,262**
Total in-scope financial liabilities		**$ 58,720**	**$ 8,305**	**$ 67,025**

(1) Investment contract liabilities held at amortized cost of $6,829 were reclassified from insurance contract liabilities under IFRS 4.
(2) Other liabilities include amounts not in scope of IFRS 9, for example pension obligations. Other liabilities of $1,474 held at amortized cost under IFRS 9 were reclassified from insurance contract liabilities under IFRS 4.

(III) Amendments to IAS 1 "Presentation of Financial Statements"
Amendments to IAS 1 "Presentation of Financial Statements" and IFRS Practice Statement 2 "Making Materiality Judgements" were issued in February 2021 and are effective prospectively on or after January 1, 2023 with earlier application permitted. The amendments address the process of selecting accounting policy disclosures, which will be based on assessments of the materiality of the accounting policies to the entity's financial statements. Adoption of these amendments did not have a significant impact on the Company's Consolidated Financial Statements.

(IV) Amendments to IAS 8 "Accounting Policies, Changes to Accounting Estimates and Errors"
Amendments to IAS 8 "Accounting Policies, Changes to Accounting Estimates and Errors" were issued in February 2021, and are effective prospectively on or after January 1, 2023, with earlier application permitted. The amendments include new definitions of estimate and change in accounting estimate, intended to help clarify the distinction among changes in accounting estimates, changes in accounting policies, and corrections of errors. Adoption of these amendments did not have a significant impact on the Company's Consolidated Financial Statements.

(V) Amendments to IAS 12 "Income Taxes"
Amendments to IAS 12 "Income Taxes" were issued in May 2023. The amendments relate to the OECD's International Pillar Two tax reform, which seeks to establish a global minimum tax ("GMT") of fifteen per cent and address inter-jurisdictional base erosion and profit shifting, targeting larger international companies. Most jurisdictions have agreed to participate and effective dates for the GMT vary by jurisdiction based on local legislation.

The Amendments require that, effective for the year ended December 31, 2023, disclosure of current tax expense or recovery related to the GMT is required along with, to the extent that the GMT legislation is enacted or substantively enacted but not yet in effect, disclosure of known or reasonably estimable information that helps users of financial statements understand the Company's exposure to the GMT arising from that legislation. Certain jurisdictions in which the Company operates, including Ireland, Japan, Luxembourg, Netherlands, the United Kingdom and Vietnam, have enacted legislation to adopt the GMT as of January 1, 2024. The assessment of the Company's potential exposure to the GMT is based on the most recent information available regarding the financial performance of the constituent entities in these jurisdictions. Based on the assessment, the Company's operations within these jurisdictions are not impacted by the GMT and therefore no disclosure of current tax expense or recovery related to the GMT is provided.

The United States adopted a corporate alternative minimum tax ("CAMT") of fifteen per cent, with an effective date of January 1, 2023. CAMT is not a Qualifying Domestic Minimum Top-up Tax for the purposes of the GMT.

In response to the GMT, Bermuda enacted the Corporate Income Tax 2023 Act on December 27, 2023. The Company's Bermuda tax-resident subsidiaries and branches will be subject to this new tax regime effective January 1, 2025, at a rate of fifteen per cent. The Bermuda corporate income tax is not a Qualifying Domestic Minimum Top-up Tax for the purposes of the GMT.

Countries without a qualified domestic minimum top-up tax of their own will be in scope for Canada's global minimum tax calculations, once enacted. The Company does not expect this will affect Manulife's total global minimum tax exposure; however, it will dictate which jurisdiction has the taxing right for local country income.

The Amendments introduce a temporary mandatory exception in IAS 12 from recognizing and disclosing deferred tax assets and liabilities related to the GMT. The Company has applied the mandatory temporary exception from accounting for deferred taxes in respect of the GMT.

Note 3 Acquisition

Manulife Fund Management Co., Ltd.
In November 2022, the Company acquired control of Manulife Fund Management Co., Ltd., formerly known as Manulife TEDA Fund Management Co., Ltd, through the purchase of the remaining 51% of shares that it did not already own from its joint venture partner. The transaction furthers the Company's goals of expanding both its Asian and asset management businesses.

The transaction included $334 of cash consideration and derecognition of the Company's previous joint venture interest with a fair value of $321. The Company recorded a gain of $95 on derecognition of the previous joint venture interest, and recognized $160 of tangible net assets, $240 of intangible assets and $255 of goodwill in November 2022.

Note 4 Invested Assets and Investment Income

(a) Carrying values and fair values of invested assets

As at December 31, 2023	FVTPL[1]	FVOCI[2]	Other[3]	Total carrying value	Total fair value[4]
Cash and short-term securities[5]	$ 1	$ 13,853	$ 6,388	$ 20,242	$ 20,242
Debt securities[6],[7]					
Canadian government and agency	1,219	19,769	-	20,988	20,988
U.S. government and agency	1,303	26,287	888	28,478	28,251
Other government and agency	90	30,576	-	30,666	30,666
Corporate	2,372	127,190	484	130,046	129,899
Mortgage / asset-backed securities	16	1,955	-	1,971	1,971
Public equities (FVTPL mandatory)	25,531	-	-	25,531	25,531
Mortgages	1,055	28,473	22,893	52,421	52,310
Private placements[7]	654	44,952	-	45,606	45,606
Loans to Bank clients	-	-	2,436	2,436	2,411
Real estate					
Own use property[8],[9]	-	-	2,591	2,591	2,716
Investment property	-	-	10,458	10,458	10,458
Other invested assets					
Alternative long-duration assets[10]	29,671	360	11,400	41,431	42,313
Various other[11]	126	-	4,120	4,246	4,246
Total invested assets	$ 62,038	$ 293,415	$ 61,658	$ 417,111	$ 417,608

As at December 31, 2022	FVTPL[1]	FVOCI[2]	Other[3]	Total carrying value	Total fair value[4]
Cash and short-term securities[5]	$ -	$ 12,716	$ 6,365	$ 19,081	$ 19,081
Debt securities[6],[7]					
Canadian government and agency	987	20,279	-	21,266	21,266
U.S. government and agency	1,378	22,446	912	24,736	24,494
Other government and agency	159	26,314	-	26,473	26,473
Corporate	2,209	126,371	499	129,079	128,910
Mortgage / asset-backed securities	22	2,266	-	2,288	2,288
Public equities (FVTPL mandatory)	23,519	-	-	23,519	23,519
Mortgages	1,138	28,621	22,006	51,765	51,372
Private placements[7]	516	41,494	-	42,010	42,010
Loans to Bank clients	-	-	2,781	2,781	2,760
Real estate					
Own use property[8],[9]	-	-	2,852	2,852	3,008
Investment property	-	-	11,417	11,417	11,417
Other invested assets					
Alternative long-duration assets[10]	26,938	296	11,226	38,460	39,225
Various other[11]	131	-	4,210	4,341	4,344
Total invested assets	$ 56,997	$ 280,803	$ 62,268	$ 400,068	$ 400,167

(1) FVTPL classification was elected for debt instruments backing certain insurance contract liabilities to substantially reduce any accounting mismatch arising from changes in the fair value of these assets, or changes in the carrying value of the related insurance contract liabilities.

(2) FVOCI classification for debt instruments backing certain insurance contract liabilities inherently reduces any accounting mismatch arising from changes in the fair value of these assets, or changes in the carrying value of the related insurance contract liabilities.

(3) Other includes mortgages and loans to Bank clients held at amortized cost, own use properties, investment properties, equity method accounted investments, and leveraged leases. Also includes debt securities, which qualify as having SPPI, are held to collect contractual cash flows and are carried at amortized cost.

(4) Invested assets above include debt securities, mortgages, private placements and approximately $360 (2022 – $302) of other invested assets, which primarily qualify as SPPI. Invested assets which do not have SPPI qualifying cash flows as at December 31, 2023 include debt securities, private placements and other invested assets with fair values of $nil, $115 and $539, respectively (2022 – $nil, $98 and $507, respectively). The change in the fair value of these invested assets for the year ended December 31, 2023 was $49 increase (2022 – $94 decrease). The methodologies used in determining fair values of invested assets are described in note 1 (c) and note 4 (g).

(5) Includes short-term securities with maturities of less than one year at acquisition amounting to $6,149 (2022 – $4,114), cash equivalents with maturities of less than 90 days at acquisition amounting to $7,706 (2022 – $8,603) and cash of $6,387 (2022 – $6,364).

(6) Debt securities include securities which were acquired with maturities of less than one year and less than 90 days of $1,294 and $1,413, respectively (2022 – $1,787 and $870, respectively).

(7) Floating rate invested assets above which are subject to interest rate benchmark reform, but have not yet transitioned to replacement reference rates, include debt securities benchmarked to CDOR and AUD BBSW of $167 and $16, respectively (2022 – $173 and $15, respectively), and private placements benchmarked to AUD BBSW and NZD BKBM of $198 and $61, respectively (2022 – $199 and $43, respectively). USD LIBOR was decommissioned on June 30, 2023. Exposures indexed to CDOR represent floating rate invested assets with maturity dates beyond June 28, 2024. The interest rate benchmark reform is expected to have an impact on the valuation of invested assets whose value is tied to the affected interest rate benchmarks. The Company has assessed its exposure at the contract level, by benchmark and instrument type. The Company is monitoring market developments with respect to alternative reference rates and the time horizon during which they will evolve. As at December 31, 2023, the interest rate benchmark reform has not resulted in significant changes in the Company's risk management strategy.

(8) Includes accumulated depreciation of $57 (2022 – $411).

(9) Own use property of $2,430 as at December 31, 2023 (December 31, 2022 – $2,682), are underlying items for insurance contracts with direct participating features and are measured at fair value as if they were investment properties, as permitted by IAS 16. Own use property of $161 (December 31, 2022 – $170) is carried at cost less accumulated depreciation and any accumulated impairment losses.

(10) ALDA include investments in private equity of $15,445, infrastructure of $14,950, timber and agriculture of $5,718, energy of $1,858 and various other ALDA of $3,460 (2022 – $14,279, $12,751, $5,979, $2,221 and $3,229, respectively).

(11) Includes $3,790 (2022 – $3,840) of leveraged leases. Refer to note 1 (e).

(b) Equity method accounted invested assets

Other invested assets include investments in associates and joint ventures which are accounted for using the equity method of accounting as presented in the following table.

	2023		2022	
As at December 31,	Carrying value	% of total	Carrying value	% of total
Leveraged leases	**$ 3,790**	**35**	$ 3,840	37
Infrastructure	**3,942**	**37**	3,298	32
Timber and agriculture	**854**	**8**	822	8
Real estate	**1,704**	**16**	1,876	18
Other	**440**	**4**	485	5
Total	**$ 10,730**	**100**	$ 10,321	100

The Company's share of profit from these investments for the year ended December 31, 2023 was $399 (2022 – $852).

(c) Investment income

For the year ended December 31, 2023	FVTPL	FVOCI	Other[1]	Total
Cash and short-term securities				
Interest income	$ -	$ 837	$ -	$ 837
Gains (losses)[2]	-	13	-	13
Debt securities				
Interest income	212	7,437	28	7,677
Gains (losses)[2]	152	262	-	414
Impairment loss, net[3]	-	(4)	-	(4)
Public equities				
Dividend income	625	-	-	625
Gains (losses)[2]	2,255	-	-	2,255
Impairment loss, net[3]	-	-	-	-
Mortgages				
Interest income	-	2,290	-	2,290
Gains (losses)[2]	99	-	-	99
Provision, net	-	-	(150)	(150)
Private placements				
Interest income	-	2,318	-	2,318
Gains (losses)[2]	20	355	-	375
Impairment loss, net[3]	-	(72)	-	(72)
Loans to Bank clients				
Interest income	-	-	201	201
Provision, net	-	-	(3)	(3)
Real estate				
Rental income, net of depreciation[4]	-	-	496	496
Gains (losses)[2]	-	-	(1,286)	(1,286)
Impairment loss, net[3]	-	-	-	-
Derivatives				
Interest income, net	(553)	-	-	(553)
Gains (losses)[2]	1,165	-	-	1,165
Other invested assets				
Interest income	17	24	-	41
Energy, timber, agriculture and other income	2,196	-	-	2,196
Gains (losses)[2]	487	-	-	487
Impairment loss, net[3]	(74)	-	(1)	(75)
Total investment income (loss)	$ 6,601	$ 13,460	$ (715)	$ 19,346
Investment income				
Interest income	$ (324)	$ 12,906	$ 229	$ 12,811
Dividends, rental income and other income	2,821	-	496	3,317
Impairments, provisions and recoveries, net[3]	(74)	(76)	(154)	(304)
Other	390	(9)	3	384
	2,813	12,821	574	16,208
Realized and unrealized gains (losses) on assets supporting insurance and investment contract liabilities				
Debt securities	153	277	-	430
Public equities	2,157	-	-	2,157
Mortgages	99	-	-	99
Private placements	20	355	-	375
Real estate	-	-	(1,289)	(1,289)
Other invested assets	484	7	-	491
Derivatives	875	-	-	875
	3,788	639	(1,289)	3,138
Total investment income (loss)	$ 6,601	$ 13,460	$ (715)	$ 19,346
Investment expenses				(1,297)
Net investment income (loss)				$ 18,049

(1) Primarily includes investment income on loans carried at amortized cost, own use real estate properties, investment real estate properties, derivative and hedging instruments in cash flow hedging relationships, equity method accounted investments, energy investments and leveraged leases.

(2) Includes net realized and unrealized gains (losses) for financial instruments at FVTPL, investment real estate properties, and other invested assets measured at fair value. Also includes net realized gains (losses) for financial instruments at FVOCI and other invested assets carried at amortized cost.

(3) The Company adopted IFRS 9's ECL impairment requirements as at January 1, 2023 without restating the comparative period. Impairments for 2023 are based on IFRS 9's ECL requirements and impairments for 2022 are based on IAS 39's incurred loss impairment requirements.

(4) Rental income from investment real estate properties is net of direct operating expenses.

For the year ended December 31, 2022	FVTPL	FVOCI	Other[1]	Total
Cash and short-term securities				
Interest income	$ -	$ 378	$ -	$ 378
Gains (losses)[2]	-	118	-	118
Debt securities				
Interest income	139	6,990	27	7,156
Gains (losses)[2]	-	(1,050)	-	(1,050)
Impairment loss, net[3]	-	-	-	-
Public equities				
Dividend income	548	-	-	548
Gains (losses)[2]	(3,995)	-	-	(3,995)
Impairment loss, net[3]	-	-	-	-
Mortgages				
Interest income	-	1,914	-	1,914
Gains (losses)[2]	-	(52)	-	(52)
Provision, net	-	-	1	1
Private placements				
Interest income	-	2,008	-	2,008
Gains (losses)[2]	-	233	-	233
Impairment loss, net[3]	-	-	-	-
Loans to Bank clients				
Interest income	-	-	138	138
Provision, net	-	-	(4)	(4)
Real estate				
Rental income, net of depreciation[4]	-	-	490	490
Gains (losses)[2]	-	-	(591)	(591)
Impairment loss, net[3]	-	-	-	-
Derivatives				
Interest income, net	517	-	-	517
Gains (losses)[2]	(10,684)	-	-	(10,684)
Other invested assets				
Interest income	14	6	-	20
Energy, timber, agriculture and other income	2,862	-	-	2,862
Gains (losses)[2]	1,641	2	-	1,643
Impairment loss, net[3]	(74)	-	-	(74)
Total investment income (loss)	$ (9,032)	$ 10,547	$ 61	$ 1,576
Investment income				
Interest income	$ 670	$ 11,296	$ 165	$ 12,131
Dividend, rental and other income	3,410	-	490	3,900
Impairments, provisions and recoveries, net[3]	(74)	-	(3)	(77)
Other	(166)	(553)	(13)	(732)
	3,840	10,743	639	15,222
Realized and unrealized gains (losses) on assets supporting insurance and investment contract liabilities				
Debt securities	-	(504)	-	(504)
Public equities	(3,825)	-	-	(3,825)
Mortgages	-	(52)	-	(52)
Private placements	-	234	-	234
Real estate	-	-	(578)	(578)
Other invested assets	1,665	126	-	1,791
Derivatives	(10,712)	-	-	(10,712)
	(12,872)	(196)	(578)	(13,646)
Total investment income (loss)	$ (9,032)	$ 10,547	$ 61	$ 1,576
Investment expenses				(1,221)
Net investment income (loss)				$ 355

Note: For footnotes (1) to (4), refer to the “Investment income” table for the year ended December 31, 2023 above.

(d) Investment expenses

The following table presents total investment expenses.

For the years ended December 31,		2023		2022
Related to invested assets	$	720	$	679
Related to segregated, mutual and other funds		577		542
Total investment expenses	$	1,297	$	1,221

(e) Investment properties

The following table presents the rental income and direct operating expenses of investment properties.

For the years ended December 31,		2023		2022
Rental income from investment properties	$	840	$	825
Direct operating expenses of rental investment properties		(473)		(458)
Total	$	367	$	367

(f) Mortgage securitization

The Company securitizes certain insured and uninsured fixed and variable rate residential mortgages and Home Equity Lines of Credit ("HELOC") through creation of mortgage-backed securities under the Canadian Mortgage Bond Program ("CMB"), and the HELOC securitization program.

Benefits received from these securitizations include interest spread between the assets and associated liabilities. There is no credit exposure from securitized mortgages under the Canada Mortgage and Housing Corporation ("CMHC") sponsored CMB securitization program as they are insured by CMHC and other third-party insurance programs against borrowers' default. Mortgages securitized in the Platinum Canadian Mortgage Trust II ("PCMT II") program are uninsured.

Cash flows received from the underlying securitized assets/mortgages are used to settle the related secured borrowing liabilities. For CMB transactions, receipts of principal are deposited into a trust account for settlement of the liabilities at time of maturity. These transferred assets and related cash flows cannot be further transferred or used for other purposes by the Company. For HELOC transactions, investors are entitled to periodic interest payments, and the remaining cash receipts of principal are allocated to the Company (the "Seller") during the revolving periods of the transactions and are accumulated for settlement during accumulation periods or repaid to the investors monthly during reduction periods, based on the terms of the notes.

Securitized assets and secured borrowing liabilities

As at December 31, 2023	Securitized assets									
Securitization program		Securitized mortgages		Restricted cash and short-term securities		Total		Secured borrowing liabilities[2]		Net
HELOC securitization[1]	$	2,880	$	32	$	2,912	$	2,750	$	162
CMB securitization[3]		2,900		-		2,900		2,806		94
Total	$	5,780	$	32	$	5,812	$	5,556	$	256

As at December 31, 2022	Securitized assets									
Securitization program		Securitized mortgages		Restricted cash and short-term securities		Total		Secured borrowing liabilities[2]		Net
HELOC securitization[1]	$	2,880	$	44	$	2,924	$	2,750	$	174
CMB securitization[3]		2,318		-		2,318		2,273		45
Total	$	5,198	$	44	$	5,242	$	5,023	$	219

(1) Manulife Bank, a subsidiary, securitizes a portion of its HELOC receivables through PCMT II. PCMT II funds the purchase of the co-ownership interests from Manulife Bank by issuing term notes collateralized by an underlying pool of uninsured HELOCs to institutional investors. The restricted cash balance for the HELOC securitization reflects a cash reserve fund established in relation to the transactions. The reserve will be drawn upon only in the event of insufficient cash flows from the underlying HELOCs to satisfy the secured borrowing liabilities.

(2) The PCMT II notes payable have floating rates of interest and are secured by the PCMT II assets. Under the terms of the agreements, principal of $27 is expected to be repaid within one year, $1,973 within 1-3 years, $750 within 3-5 years and $nil beyond 5 years, respectively (2022 – $nil, $1,209, $1,049 and $492, respectively). There is no specific maturity date for the contractual agreements. Under the terms of the notes, additional collateral must be provided to the series as added credit protection and the Series Purchase Agreements govern the amount of over-collateralization for each of the term notes outstanding.

(3) Manulife Bank also securitizes insured amortizing mortgages under the National Housing Act Mortgage-Backed Securities ("NHA MBS") program sponsored by CMHC. Manulife Bank participates in CMB programs by selling NHA MBS securities to Canada Housing Trust ("CHT"), as a source of fixed rate funding.

As at December 31, 2023, the fair value of securitized assets and associated liabilities were $5,782 and $5,456, respectively (2022 – $5,167 and $4,865, respectively).

(g) Fair value measurement

The following table presents fair values and the fair value hierarchy of invested assets and segregated funds net assets measured at fair value in the Consolidated Statements of Financial Position.

As at December 31, 2023	Total fair value	Level 1	Level 2	Level 3
Cash and short-term securities				
FVOCI	**$ 13,853**	**$ -**	**$ 13,853**	**$ -**
FVTPL	**1**	**-**	**1**	**-**
Other	**6,387**	**6,387**	**-**	**-**
Debt securities				
FVOCI				
Canadian government and agency	**19,769**	**-**	**19,769**	**-**
U.S. government and agency	**26,287**	**-**	**26,287**	**-**
Other government and agency	**30,576**	**-**	**30,566**	**10**
Corporate	**127,190**	**-**	**126,959**	**231**
Residential mortgage-backed securities	**6**	**-**	**6**	**-**
Commercial mortgage-backed securities	**370**	**-**	**370**	**-**
Other asset-backed securities	**1,579**	**-**	**1,558**	**21**
FVTPL				
Canadian government and agency	**1,219**	**-**	**1,219**	**-**
U.S. government and agency	**1,303**	**-**	**1,303**	**-**
Other government and agency	**90**	**-**	**90**	**-**
Corporate	**2,372**	**-**	**2,372**	**-**
Commercial mortgage-backed securities	**1**	**-**	**1**	**-**
Other asset-backed securities	**15**	**-**	**15**	**-**
Private placements[(1)]				
FVOCI	**44,952**	**-**	**37,270**	**7,682**
FVTPL	**654**	**-**	**575**	**79**
Mortgages				
FVOCI	**28,473**	**-**	**-**	**28,473**
FVTPL	**1,055**	**-**	**-**	**1,055**
Public equities				
FVTPL	**25,531**	**25,423**	**67**	**41**
Real estate[(2)]				
Investment property	**10,458**	**-**	**-**	**10,458**
Own use property	**2,430**	**-**	**-**	**2,430**
Other invested assets[(3)]	**33,652**	**68**	**-**	**33,584**
Segregated funds net assets[(4)]	**377,544**	**343,061**	**30,991**	**3,492**
Total	**$ 755,767**	**$ 374,939**	**$ 293,272**	**$ 87,556**

(1) Fair value of private placements is determined through an internal valuation methodology using both observable and non-market observable inputs. Non-market observable inputs include credit assumptions and liquidity spread adjustments. Private placements are classified within Level 2 unless the liquidity adjustment constitutes a significant price impact, in which case the securities are classified as Level 3.

(2) For real estate properties, the significant non-market observable inputs are capitalization rates ranging from 2.72% to 10.75% during the year ended December 31, 2023 (2022 – ranging from 2.25% to 9.00%), terminal capitalization rates ranging from 3.00% to 10.00% during the year ended December 31, 2023 (2022 – ranging from 3.25% to 9.50%) and discount rates ranging from 3.20% to 14.00% during the year ended December 31, 2023 (2022 – ranging from 3.30% to 11.00%). Holding other factors constant, a lower capitalization or terminal capitalization rate will tend to increase the fair value of an investment property. Changes in fair value based on variations in non-market observable inputs generally cannot be extrapolated because the relationship between the directional changes of each input is not usually linear.

(3) Other invested assets measured at fair value are held in infrastructure and timber sectors and include fund investments of $27,532 recorded at net asset value. The significant inputs used in the valuation of the Company's infrastructure investments are primarily future distributable cash flows, terminal values and discount rates. Holding other factors constant, an increase to future distributable cash flows or terminal values would tend to increase the fair value of an infrastructure investment, while an increase in the discount rate would have the opposite effect. Discount rates during the year ended December 31, 2023 ranged from 7.35% to 15.60% (2022 – ranged from 7.15% to 15.60%). Disclosure of distributable cash flow and terminal value ranges are not meaningful given the disparity in estimates by project. The significant inputs used in the valuation of the Company's investments in timberland properties are timber prices and discount rates. Holding other factors constant, an increase to timber prices would tend to increase the fair value of a timberland investment, while an increase in the discount rates would have the opposite effect. Discount rates during the year ended December 31, 2023 ranged from 4.00% to 7.00% (2022 – ranged from 4.25% to 7.00%). A range of prices for timber is not meaningful as the market price depends on factors such as property location and proximity to markets and export yards.

(4) Segregated funds net assets are measured at fair value. The Company's Level 3 segregated funds underlying assets are predominantly investment properties and timberland properties valued as described above.

As at December 31, 2022	Total fair value	Level 1	Level 2	Level 3
Cash and short-term securities				
FVOCI	$ 12,716	$ -	$ 12,716	$ -
Other	6,365	6,365	-	-
Debt securities				
FVOCI				
Canadian government and agency	20,279	-	20,279	-
U.S. government and agency	22,446	-	22,446	-
Other government and agency	26,314	-	26,305	9
Corporate	126,371	-	126,339	32
Residential mortgage-backed securities	7	-	7	-
Commercial mortgage-backed securities	589	-	589	-
Other asset-backed securities	1,670	-	1,644	26
FVTPL				
Canadian government and agency	987	-	987	-
U.S. government and agency	1,378	-	1,378	-
Other government and agency	159	-	159	-
Corporate	2,209	-	2,209	-
Commercial mortgage-backed securities	6	-	6	-
Other asset-backed securities	16	-	16	-
Private placements(1)				
FVOCI	41,494	-	33,666	7,828
FVTPL	516	-	485	31
Mortgages				
FVOCI	28,621	-	-	28,621
FVTPL	1,138	-	-	1,138
Public equities				
FVTPL	23,519	23,448	-	71
Real estate(2)				
Investment property	11,417	-	-	11,417
Own use property	2,682	-	-	2,682
Other invested assets(3)	31,096	26	-	31,070
Segregated funds net assets(4)	348,562	314,436	30,141	3,985
Total	$ 710,557	$ 344,275	$ 279,372	$ 86,910

Note: For footnotes (1) to (4), refer to the “Fair value measurement” table as at December 31, 2023 above.

The following table presents fair value of invested assets not measured at fair value by the fair value hierarchy.

As at December 31, 2023	Carrying value	Total fair value	Level 1	Level 2	Level 3
Short-term securities	**$ 1**	**$ 1**	**$ -**	**$ 1**	**$ -**
Mortgages[1]	**22,893**	**22,782**	**-**	**-**	**22,782**
Loans to Bank clients[2]	**2,436**	**2,411**	**-**	**2,411**	**-**
Real estate - own use property[3]	**161**	**286**	**-**	**-**	**286**
Public bonds held at amortized cost	**1,372**	**998**	**-**	**998**	**-**
Other invested assets[4]	**12,025**	**12,907**	**240**	**-**	**12,667**
Total invested assets disclosed at fair value	**$ 38,888**	**$ 39,385**	**$ 240**	**$ 3,410**	**$ 35,735**

As at December 31, 2022	Carrying value	Total fair value	Level 1	Level 2	Level 3
Mortgages[1]	$ 22,006	$ 21,613	$ -	$ -	$ 21,613
Loans to Bank clients[2]	2,781	2,760	-	2,760	-
Real estate - own use property[3]	170	326	-	-	326
Public bonds held at amortized cost	1,411	1,000	-	1,000	-
Other invested assets[4]	11,705	12,473	72	-	12,401
Total invested assets disclosed at fair value	$ 38,073	$ 38,172	$ 72	$ 3,760	$ 34,340

(1) Fair value of commercial mortgages is determined through an internal valuation methodology using both observable and non-market observable inputs. Non-market observable inputs include credit assumptions and liquidity spread adjustments. Fair value of fixed-rate residential mortgages is determined using the discounted cash flow method. Inputs used for valuation are primarily comprised of prevailing interest rates and prepayment rates, if applicable. Fair value of variable-rate residential mortgages is assumed to be their carrying value.

(2) Fair value of fixed-rate loans to Bank clients is determined using the discounted cash flow method. Inputs used for valuation are primarily comprised of current interest rates. Fair value of variable-rate loans is assumed to be their carrying value.

(3) Fair value of own use real estate and the fair value hierarchy are determined in accordance with the methodologies described for real estate – investment property in note 1 (e).

(4) Primarily includes leveraged leases of $3,790 (2022 – $3,840), and equity method accounted other invested assets. Fair value of leveraged leases is disclosed at their carrying values as fair value is not routinely calculated on these investments. Fair value for energy properties is determined using external appraisals based on discounted cash flow methodology. Inputs used in valuation are primarily comprised of forecasted price curves, planned production, as well as capital expenditures, and operating costs. Fair value of equity method accounted other invested assets is determined using a variety of valuation techniques including discounted cash flows and market comparable approaches. Inputs vary based on the specific investment.

Transfers between Level 1 and Level 2

The Company records transfers of assets and liabilities between Level 1 and Level 2 at their fair values as at the end of each reporting period, consistent with the date of the determination of fair value. Assets are transferred out of Level 1 when they are no longer transacted with sufficient frequency and volume in an active market. Conversely, assets are transferred from Level 2 to Level 1 when transaction volume and frequency are indicative of an active market. During the year ended December 31, 2023, the Company had $nil of transfers between Level 1 and Level 2 (2022 – $nil).

For segregated funds net assets, during the year ended December 31, 2023, the Company had $nil transfers from Level 1 to Level 2 (2022 – $nil). During the year ended December 31, 2023, the Company had $nil transfers from Level 2 to Level 1 (2022 – $nil).

Invested assets and segregated funds net assets measured at fair value using significant non-market observable inputs (Level 3)

The Company classifies fair values of invested assets and segregated funds net assets as Level 3 if there are no observable markets for these assets or, in the absence of active markets, significant non-market observable inputs are used to determine fair value. The Company prioritizes the use of market-based inputs over non-market observable inputs in determining Level 3 fair values. The gains and losses in the table below include the changes in fair value due to both observable and non-market observable factors.

The following table presents the movement in invested assets, net derivatives and segregated funds net assets measured at fair value using significant non-market observable inputs (Level 3) for the year ended December 31, 2023 and 2022.

For the year ended December 31, 2023	Balance, January 1, 2023	Total gains (losses) included in net income[1]	Total gains (losses) included in AOCI[2]	Purchases	Sales	Settlements	Transfer in[3]	Transfer out[3],[4]	Currency movement	**Balance, December 31, 2023**	Change in unrealized gains (losses) on assets still held
Debt instruments											
FVOCI											
Other government & agency	$ 9	$ -	$ -	$ 2	$ -	$ -	$ -	$ -	$ (1)	$ 10	$ -
Corporate	32	-	3	178	-	(7)	25	-	-	231	-
Other securitized assets	26	-	1	-	-	(5)	-	-	(1)	21	-
Public equities											
FVTPL	71	-	-	37	-	-	-	(67)	-	41	-
Private placements											
FVOCI	7,828	(4)	258	1,942	(497)	(1,172)	2,546	(2,907)	(312)	7,682	-
FVTPL	31	44	-	17	-	(1)	34	(47)	1	79	44
Mortgages											
FVOCI	28,621	65	830	1,984	(1,626)	(856)	-	-	(545)	28,473	-
FVTPL	1,138	37	-	160	(239)	(39)	-	-	(2)	1,055	-
Investment property	11,417	(1,054)	-	416	(122)	-	-	-	(199)	10,458	(1,055)
Own use property	2,682	(234)	-	20	-	-	-	-	(38)	2,430	(234)
Other invested assets	31,070	423	7	4,760	(522)	(1,219)	-	(68)	(867)	33,584	647
Total invested assets	82,925	(723)	1,099	9,516	(3,006)	(3,299)	2,605	(3,089)	(1,964)	84,064	(598)
Derivatives, net	(3,188)	(144)	-	-	-	960	-	165	41	(2,166)	17
Segregated funds net assets	3,985	(97)	-	110	(466)	24	-	(15)	(49)	3,492	32
Total	$ 83,722	$ (964)	$ 1,099	$ 9,626	$ (3,472)	$ (2,315)	$ 2,605	$ (2,939)	$ (1,972)	$ 85,390	$ (549)

For the year ended December 31, 2022	Balance, January 1, 2022	Total gains (losses) included in net income[1]	Total gains (losses) included in AOCI[2]	Purchases	Sales	Settlements	Transfer in[3]	Transfer out[3]	Currency movement	**Balance, December 31, 2022**	Change in unrealized gains (losses) on assets still held
Debt instruments											
FVOCI											
Other government & agency	$ -	$ -	$ -	$ -	$ -	$ -	$ 9	$ -	$ -	$ 9	$ -
Corporate	41	-	(1)	27	-	(1)	6	(42)	2	32	-
Other securitized assets	28	-	2	-	-	(4)	-	-	-	26	-
Public equities											
FVTPL	-	(6)	-	69	(84)	-	87	-	5	71	(13)
Private placements											
FVOCI	5,136	(9)	(1,453)	1,697	(89)	(188)	2,876	(362)	220	7,828	-
FVTPL	30	(7)	-	-	-	(1)	9	-	-	31	(7)
Mortgages											
FVOCI	31,798	(76)	(4,692)	3,511	(2,411)	(757)	-	-	1,248	28,621	-
FVTPL	1,203	(117)	-	110	(22)	(38)	-	-	2	1,138	-
Investment property	11,443	(443)	-	312	(237)	-	17	-	325	11,417	(445)
Own use property	2,661	(120)	-	20	-	-	(15)	-	136	2,682	(120)
Other invested assets	24,884	1,934	5	4,938	(668)	(1,519)	248	-	1,248	31,070	2,057
Total invested assets	77,224	1,156	(6,139)	10,684	(3,511)	(2,508)	3,237	(404)	3,186	82,925	1,472
Derivatives, net	2,101	(5,429)	(7)	(109)	-	775	-	(356)	(163)	(3,188)	(3,527)
Segregated funds net assets	4,281	475	-	246	(1,113)	(46)	-	(1)	143	3,985	79
Total	$ 83,606	$ (3,798)	$ (6,146)	$ 10,821	$ (4,624)	$ (1,779)	$ 3,237	$ (761)	$ 3,166	$ 83,722	$ (1,976)

[1] These amounts are included in net investment income on the Consolidated Statements of Income except for the amount related to segregated funds net assets, where the amount is recorded in Investment income related to segregated funds net assets. Refer to notes 1 (h) and 23.

[2] These amounts are included in AOCI on the Consolidated Statements of Financial Position.

[3] The Company uses fair values of the assets at the beginning of the year for assets transferred into and out of Level 3 except for derivatives, where the Company uses fair value at the end of the year and at the beginning of the year, respectively.

[4] Private placement bonds of $1,771 with maturity dates beyond 30 years were reclassed from Level 3 to Level 2 in the current period to align with the fair value leveling treatment of public bonds.

Transfers into Level 3 primarily result from securities that were impaired during the periods or securities where a lack of observable market data (versus the previous period) resulted in reclassifying assets into Level 3. Transfers from Level 3 primarily result from observable market data becoming available for the entire term structure of the debt security.

(h) Remaining term to maturity

The following table presents remaining term to maturity for invested assets.

	Remaining terms to maturities[1]						
As at December 31, 2023	Less than 1 year	1 to 3 years	3 to 5 years	5 to 10 years	Over 10 years	With no specific maturity	Total
Cash and short-term securities	**$ 20,242**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 20,242**
Debt securities							
Canadian government and agency	**657**	**1,435**	**1,580**	**3,656**	**13,660**	**-**	**20,988**
U.S. government and agency	**297**	**725**	**744**	**4,504**	**22,208**	**-**	**28,478**
Other government and agency	**412**	**1,052**	**1,892**	**3,864**	**23,446**	**-**	**30,666**
Corporate	**8,475**	**15,512**	**18,548**	**33,361**	**54,100**	**50**	**130,046**
Mortgage / asset-backed securities	**106**	**153**	**279**	**556**	**877**	**-**	**1,971**
Public equities	**-**	**-**	**-**	**-**	**-**	**25,531**	**25,531**
Mortgages	**3,363**	**12,076**	**10,181**	**7,690**	**9,644**	**9,467**	**52,421**
Private placements	**1,418**	**3,486**	**4,704**	**9,137**	**26,790**	**71**	**45,606**
Loans to Bank clients	**39**	**23**	**1**	**-**	**-**	**2,373**	**2,436**
Real estate							
Own use property	**-**	**-**	**-**	**-**	**-**	**2,591**	**2,591**
Investment property	**-**	**-**	**-**	**-**	**-**	**10,458**	**10,458**
Other invested assets							
Alternative long-duration assets	**-**	**67**	**22**	**82**	**732**	**40,528**	**41,431**
Various other[2]	**-**	**-**	**19**	**1,528**	**2,242**	**457**	**4,246**
Total invested assets	**$ 35,009**	**$ 34,529**	**$ 37,970**	**$ 64,378**	**$ 153,699**	**$ 91,526**	**$ 417,111**

	Remaining terms to maturities[1]						
As at December 31, 2022	Less than 1 year	1 to 3 years	3 to 5 years	5 to 10 years	Over 10 years	With no specific maturity	Total
Cash and short-term securities	$ 19,081	$ -	$ -	$ -	$ -	$ -	$ 19,081
Debt securities							
Canadian government and agency	738	1,242	2,536	3,811	12,939	-	21,266
U.S. government and agency	380	775	505	3,560	19,516	-	24,736
Other government and agency	457	753	1,490	3,801	19,972	-	26,473
Corporate	8,599	14,542	16,767	36,778	52,392	1	129,079
Mortgage / asset-backed securities	6	89	265	574	1,354	-	2,288
Public equities	-	-	-	-	-	23,519	23,519
Mortgages	3,288	7,838	10,911	7,906	11,629	10,193	51,765
Private placements	1,485	2,962	4,090	7,958	25,440	75	42,010
Loans to Bank clients	40	18	5	-	2	2,716	2,781
Real estate							
Own use property	-	-	-	-	-	2,852	2,852
Investment property	-	-	-	-	-	11,417	11,417
Other invested assets							
Alternative long-duration assets	1	46	22	35	674	37,682	38,460
Various other[2]	105	-	19	509	3,207	501	4,341
Total invested assets	$ 34,180	$ 28,265	$ 36,610	$ 64,932	$ 147,125	$ 88,956	$ 400,068

[1] Represents contractual maturities. Actual maturities may differ due to prepayment privileges in the applicable contract.
[2] Primarily includes equity method accounted investments and leveraged leases.

Note 5 Derivative and Hedging Instruments

Derivatives are financial contracts, the value of which is derived from a variety of factors described in note 5 (a). The Company uses derivatives including swaps, forward and futures agreements, and options to manage current and anticipated exposures to changes in interest rates, foreign exchange rates, commodity prices and equity market prices, and to replicate exposure to different types of investments.

Swaps are contractual agreements between the Company and a third-party to exchange a series of cash flows based upon rates applied to a notional amount. For interest rate swaps, counterparties generally exchange fixed or floating interest rate payments based on a notional value in a single currency. Cross currency swaps involve the exchange of principal amounts between parties as well as the exchange of interest payments in one currency for the receipt of interest payments in another currency. Total return swaps are contracts that involve the exchange of payments based on changes in the values of a reference asset, including any returns such as interest earned on these assets, in return for amounts based on reference rates specified in the contract.

Forward and futures agreements are contractual obligations to buy or sell a financial instrument, foreign currency or other underlying commodity on a predetermined future date at a specified price. Forward contracts are OTC contracts negotiated between counterparties, whereas futures agreements are contracts with standard amounts and settlement dates that are traded on regulated exchanges.

Options are contractual agreements whereby the holder has the right, but not the obligation, to buy (call option) or sell (put option) a security, exchange rate, interest rate, or other financial instrument at a predetermined price/rate within a specified time.

See variable annuity dynamic hedging strategy in note 9 (a) for an explanation of the Company's dynamic hedging strategy for its variable annuity product guarantees.

(a) Fair value of derivatives

The pricing models used to value derivatives are based on market standard valuation methodologies and the inputs to these models are consistent with what a market participant would use when pricing the instruments. Derivative valuations can be affected by changes in interest rates, foreign exchange rates, financial indices, commodity prices or indices, credit spreads, default risk (including the counterparties to the contract), and market volatility. The significant inputs to the pricing models for most derivatives are inputs that are observable or can be corroborated by observable market data and are classified as Level 2. Inputs that are observable generally include interest rates, foreign exchange rates and interest rate curves. However, certain derivatives may rely on inputs that are significant to the fair value that are not observable in the market or cannot be derived principally from, or corroborated by, observable market data and these derivatives are classified as Level 3. Inputs that are unobservable generally include broker quoted prices, volatilities and inputs that are outside of the observable portion of the interest rate curve or other relevant market measures. These non-market observable inputs may involve significant management judgment or estimation. Even though non-market observable, these inputs are based on assumptions deemed appropriate given the circumstances and consistent with what market participants would use when pricing such instruments. The credit risk of both the counterparty and the Company are considered in determining the fair value for all derivatives after considering the effects of netting agreements and collateral arrangements.

The following table presents gross notional amount and fair value of derivative instruments by the underlying risk exposure.

As at December 31,		2023			2022		
		Notional	Fair value		Notional	Fair value	
Type of hedge	Instrument type	amount	Assets	Liabilities	amount	Assets	Liabilities
Qualifying hedge accounting relationships							
Fair value hedges	Interest rate swaps	**$ 184,309**	**$ 2,627**	**$ 3,044**	$ -	$ -	$ -
	Foreign currency swaps	**9,055**	**78**	**1,518**	48	5	-
	Forward contracts	**23,461**	**165**	**2,672**	-	-	-
Cash flow hedges	Interest rate swaps	**8,372**	**20**	**48**	-	-	-
	Foreign currency swaps	**650**	**-**	**181**	650	-	203
	Forward contracts	**-**	**-**	**-**	-	-	-
	Equity contracts	**240**	**3**	**-**	173	3	-
Net investment hedges	Foreign currency swaps	**3,682**	**166**	**-**	3,682	51	38
	Forward contracts	**654**	**-**	**16**	626	-	28
Total derivatives in qualifying hedge accounting relationships		**230,423**	**3,059**	**7,479**	5,179	59	269
Derivatives not designated in qualifying hedge accounting relationships							
	Interest rate swaps	**103,806**	**2,361**	**3,098**	268,081	5,751	7,557
	Interest rate futures	**9,449**	**-**	**-**	11,772	-	-
	Interest rate options	**5,841**	**33**	**-**	6,090	98	-
	Foreign currency swaps	**34,116**	**1,909**	**433**	40,640	2,068	1,618
	Currency rate futures	**2,581**	**-**	**-**	2,319	-	-
	Forward contracts	**34,080**	**769**	**597**	45,124	295	4,697
	Equity contracts	**19,760**	**579**	**115**	16,930	363	225
	Credit default swaps	**131**	**3**	**-**	159	4	-
	Equity futures	**4,040**	**-**	**-**	3,813	-	-
Total derivatives not designated in qualifying hedge accounting relationships		**213,804**	**5,654**	**4,243**	394,928	8,579	14,097
Total derivatives		**$ 444,227**	**$ 8,713**	**$ 11,722**	$ 400,107	$ 8,638	$ 14,366

The total notional amount above includes $79 billion (December 31, 2022 – $211 billion) of derivative instruments which reference rates that are impacted under the interest rate benchmark reform, with a significant majority to CDOR. USD LIBOR was decommissioned on June 30, 2023. Exposures indexed to CDOR represent derivatives with a maturity date beyond June 28, 2024. Upon adoption of IFRS 9, the Company designated additional existing derivatives in hedge accounting relationships. The exposure in the Company's hedge accounting programs is primarily to the CDOR benchmark. Compared to the overall risk exposure, the effect of interest rate benchmark reform on existing accounting hedges is not significant. The Company continues to apply high probability and high effectiveness expectation assumptions for cash flows and there would be no automatic de-designation of qualifying hedge relationships due to the impact from interest rate benchmark reform.

The following table presents the fair values of the derivative instruments by the remaining term to maturity. Fair values disclosed below do not incorporate the impact of master netting agreements (refer to note 9 (g)).

	Remaining term to maturity				
As at December 31, 2023	Less than 1 year	1 to 3 years	3 to 5 years	Over 5 years	Total
Derivative assets	**$ 1,189**	**$ 631**	**$ 644**	**$ 6,249**	**$ 8,713**
Derivative liabilities	**1,596**	**1,982**	**717**	**7,427**	**11,722**

	Remaining term to maturity				
As at December 31, 2022	Less than 1 year	1 to 3 years	3 to 5 years	Over 5 years	Total
Derivative assets	$ 580	$ 556	$ 606	$ 6,896	$ 8,638
Derivative liabilities	2,656	1,996	1,163	8,551	14,366

The following table presents gross notional amount by the remaining term to maturity, total fair value (including accrued interest), credit equivalent amount and capital requirement by contract type.

As at December 31, 2023	Remaining term to maturity (notional amounts) Under 1 year	1 to 5 years	Over 5 years	Total	Fair value Positive	Negative	Net	Credit equivalent amount[1]	Capital requirement[2]
Interest rate contracts									
OTC swap contracts	**$ 4,645**	**$ 20,923**	**$ 106,445**	**$ 132,013**	**$ 5,295**	**$ (6,850)**	**$ (1,555)**	**$ 300**	**$ 7**
Cleared swap contracts	**4,634**	**33,082**	**126,758**	**164,474**	**220**	**(180)**	**40**	**-**	**-**
Forward contracts	**17,809**	**16,182**	**-**	**33,991**	**771**	**(2,986)**	**(2,215)**	**-**	**-**
Futures	**9,449**	**-**	**-**	**9,449**	**-**	**-**	**-**	**-**	**-**
Options purchased	**795**	**1,362**	**3,684**	**5,841**	**33**	**-**	**33**	**8**	**-**
Subtotal	**37,332**	**71,549**	**236,887**	**345,768**	**6,319**	**(10,016)**	**(3,697)**	**308**	**7**
Foreign exchange									
Swap contracts	**2,578**	**14,459**	**30,466**	**47,503**	**2,143**	**(2,214)**	**(71)**	**1,339**	**24**
Forward contracts	**24,204**	**-**	**-**	**24,204**	**163**	**(299)**	**(136)**	**19**	**-**
Futures	**2,581**	**-**	**-**	**2,581**	**-**	**-**	**-**	**-**	**-**
Subtotal	**29,363**	**14,459**	**30,466**	**74,288**	**2,306**	**(2,513)**	**(207)**	**1,358**	**24**
Credit derivatives	**14**	**117**	**-**	**131**	**4**	**-**	**4**	**-**	**-**
Equity contracts									
Swap contracts	**1,452**	**723**	**-**	**2,175**	**18**	**(78)**	**(60)**	**32**	**-**
Futures	**4,040**	**-**	**-**	**4,040**	**-**	**-**	**-**	**-**	**-**
Options purchased	**14,830**	**2,995**	**-**	**17,825**	**562**	**(28)**	**534**	**215**	**2**
Subtotal	**20,336**	**3,835**	**-**	**24,171**	**584**	**(106)**	**478**	**247**	**2**
Subtotal including accrued interest	**87,031**	**89,843**	**267,353**	**444,227**	**9,209**	**(12,635)**	**(3,426)**	**1,913**	**33**
Less accrued interest	**-**	**-**	**-**	**-**	**496**	**(913)**	**(417)**	**-**	**-**
Total	**$ 87,031**	**$ 89,843**	**$ 267,353**	**$ 444,227**	**$ 8,713**	**$ (11,722)**	**$ (3,009)**	**$ 1,913**	**$ 33**

As at December 31, 2022	Remaining term to maturity (notional amounts) Under 1 year	1 to 5 years	Over 5 years	Total	Fair value Positive	Negative	Net	Credit equivalent amount[1]	Capital requirement[2]
Interest rate contracts									
OTC swap contracts	$ 8,817	$ 19,253	$ 98,380	$ 126,450	$ 5,992	$ (8,135)	$ (2,143)	$ 419	$ 9
Cleared swap contracts	2,494	16,823	122,314	141,631	254	(219)	35	-	-
Forward contracts	14,290	13,926	198	28,414	70	(4,468)	(4,398)	8	-
Futures	11,772	-	-	11,772	-	-	-	-	-
Options purchased	1,199	1,069	3,822	6,090	98	-	98	64	4
Subtotal	38,572	51,071	224,714	314,357	6,414	(12,822)	(6,408)	491	13
Foreign exchange									
Swap contracts	2,026	13,620	29,374	45,020	2,118	(1,925)	193	1,259	25
Forward contracts	17,336	-	-	17,336	226	(258)	(32)	89	-
Futures	2,319	-	-	2,319	-	-	-	-	-
Subtotal	21,681	13,620	29,374	64,675	2,344	(2,183)	161	1,348	25
Credit derivatives	15	144	-	159	4	-	4	-	-
Equity contracts									
Swap contracts	547	396	-	943	26	(7)	19	24	-
Futures	3,813	-	-	3,813	-	-	-	-	-
Options purchased	12,634	3,526	-	16,160	335	(218)	117	232	2
Subtotal	17,009	4,066	-	21,075	365	(225)	140	256	2
Subtotal including accrued interest	77,262	68,757	254,088	400,107	9,123	(15,230)	(6,107)	2,095	40
Less accrued interest	-	-	-	-	485	(864)	(379)	-	-
Total	$ 77,262	$ 68,757	$ 254,088	$ 400,107	$ 8,638	$ (14,366)	$ (5,728)	$ 2,095	$ 40

(1) Credit equivalent amount is the sum of replacement cost and the potential future credit exposure less any collateral held. Replacement cost represents the current cost of replacing all contracts with a positive fair value. The amounts take into consideration legal contracts that permit offsetting of positions. The potential future credit exposure is calculated based on a formula prescribed by OSFI.

(2) Capital requirement represents the credit equivalent amount, weighted according to the creditworthiness of the counterparty, as prescribed by OSFI.

The total notional amount of $444 billion (2022 – $400 billion) includes $82 billion (2022 – $77 billion) related to derivatives utilized in the Company's variable annuity guarantee dynamic hedging. Due to the Company's variable annuity hedging practices, many trades are in offsetting positions, resulting in materially lower net fair value exposure for the Company than what the gross notional amount would suggest.

The following table presents the average rate of the hedging instruments in hedge relationships that do not frequently reset:

As at December 31, 2023			Remaining term to maturity (notional amounts)				Fair value		
Hedged item	Hedging instrument	Average rate	Under 1 year	1 to 5 years	Over 5 years	Total	Positive	Negative	Net
Inflation risk									
Inflation linked insurance liabilities	Interest rate swaps	CPI rate: 290.13	**$ 87**	**$ 459**	**$ 7,826**	**$ 8,372**	**$ 20**	**$ (48)**	**$ (28)**
Foreign exchange risk									
Fixed rate liabilities	Foreign currency swaps	SGD/CAD: 0.93503	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Foreign exchange and interest rate risk									
Floating rate foreign currency liabilities	Foreign currency swaps	CAD/USD: 0.86655	**-**	**-**	**650**	**650**	**-**	**(181)**	**(181)**
Debt securities at fair value through OCI	Foreign currency swaps	CAD/USD: 1.22914	**-**	**46**	**-**	**46**	**5**	**-**	**5**
Equity risk									
Stock-based compensation	Equity contracts	MFC price: $26.28	**11**	**229**	**-**	**240**	**3**	**-**	**3**
Total			**$ 98**	**$ 734**	**$ 8,476**	**$ 9,308**	**$ 28**	**$ (229)**	**$ (201)**

As at December 31, 2022			Remaining term to maturity (notional amounts)				Fair value		
Hedged item	Hedging instrument	Average rate	Under 1 year	1 to 5 years	Over 5 years	Total	Positive	Negative	Net
Foreign exchange risk									
Fixed rate liabilities	Foreign currency swaps	SGD/CAD: 0.93503	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Foreign exchange and interest rate risk									
Floating rate foreign currency liabilities	Foreign currency swaps	CAD/USD: 0.86655	-	-	650	650	-	(203)	(203)
Debt securities at fair value through OCI	Foreign currency swaps	CAD/USD: 1.22914	-	48	-	48	5	-	5
Equity risk									
Stock-based compensation	Equity contracts	MFC price: $25.39	9	164	-	173	3	-	3
Total			$ 9	$ 212	$ 650	$ 871	$ 8	$ (203)	$ (195)

Fair value and the fair value hierarchy of derivative instruments

As at December 31, 2023	Fair value	Level 1	Level 2	Level 3
Derivative assets				
Interest rate contracts	**$ 5,813**	**$ -**	**$ 5,262**	**$ 551**
Foreign exchange contracts	**2,315**	**-**	**2,315**	**-**
Equity contracts	**582**	**-**	**572**	**10**
Credit default swaps	**3**	**-**	**3**	**-**
Total derivative assets	**$ 8,713**	**$ -**	**$ 8,152**	**$ 561**
Derivative liabilities				
Interest rate contracts	**$ 9,176**	**$ -**	**$ 6,451**	**$ 2,725**
Foreign exchange contracts	**2,431**	**-**	**2,430**	**1**
Equity contracts	**115**	**-**	**114**	**1**
Total derivative liabilities	**$ 11,722**	**$ -**	**$ 8,995**	**$ 2,727**

As at December 31, 2022	Fair value	Level 1	Level 2	Level 3
Derivative assets				
Interest rate contracts	$ 5,919	$ -	$ 5,766	$ 153
Foreign exchange contracts	2,349	-	2,348	1
Equity contracts	366	-	361	5
Credit default swaps	4	-	4	-
Total derivative assets	$ 8,638	$ -	$ 8,479	$ 159
Derivative liabilities				
Interest rate contracts	$ 12,025	$ -	$ 8,689	$ 3,336
Foreign exchange contracts	2,116	-	2,114	2
Equity contracts	225	-	216	9
Total derivative liabilities	$ 14,366	$ -	$ 11,019	$ 3,347

Movement in net derivatives measured at fair value using significant non-market observable inputs (Level 3) is presented in note 4 (g).

(b) Hedging relationships

The Company uses derivatives for economic hedging purposes. In certain circumstances, these derivatives meet the requirements of hedge accounting and designating them in qualifying hedge accounting relationships achieves the desired IFRS presentation. Risk management strategies eligible for hedge accounting are designated as fair value hedges, cash flow hedges or net investment hedges.

At the inception of a hedge accounting relationship, the Company documents the relationship between hedging instrument and hedged item, its risk management objective, and its strategy for undertaking the hedge. At hedge inception and on an ongoing basis, an assessment is performed and documented to demonstrate that the hedging relationship qualifies or continues to qualify for hedge accounting. In order to qualify for hedge accounting, there has to be an economic relationship between the hedging instrument and the hedged item, an assessment that the effect of credit risk does not dominate the economic relationship, and the hedge ratio between the hedging instrument and the hedged item will be based on the approach used by risk management, unless the hedge ratio used by risk management results in an imbalance that would create hedge ineffectiveness that is inconsistent with the purpose of hedge accounting.

- The Company designates a specific risk component or a combination of risk components as the hedged risk, including benchmark interest rate, foreign exchange rate, equity price and consumer price index components. All these risk components are observable in the relevant market environment and the changes in fair value or variability in cash flows attributable to these risk components can be reliably measured for hedged items. The hedged risk is generally the most significant risk component of the overall changes in fair value or in cash flows. The Company acquires derivatives for economic hedging purposes with underlying characteristics that offset the hedged risk based on the risk management strategy.
- The Company executes hedging derivatives with counterparties with high credit quality and monitors the creditworthiness of the counterparties to ensure they are expected to meet cash flow obligations on the hedging instruments as they come due, and that the probability of counterparty default is remote. Further, changes in the Company's own credit risk are immaterial and have insignificant impact to the hedging relationships.
- A hedge ratio is calculated as the ratio between the quantity of the hedged item that the Company hedges and the quantity of the hedging instrument the Company uses to hedge that quantity of hedged item.
    - For group fair value hedges of interest rate risk of insurance liabilities and group fair value hedges of foreign exchange and interest rate risk of foreign currency denominated debt instruments, the Company constructs the hedge relationship by comparing interest rate sensitivities of the group of hedging derivatives and the group of hedged items in the same currency. Interest rate sensitivities are compared by estimating the change in the present value of cash flows of hedged items and of hedging derivatives from an instantaneous shock to interest rates, assuming no rebalancing actions are undertaken.
    - For the rest of the Company's hedge accounting relationships, the Company generally constructs the hedge relationships by comparing the notional amounts of the hedging derivatives with that of the hedged items.

Hedge ineffectiveness in various hedging relationships may still exist and potential sources of hedge ineffectiveness by risk category are summarized as below:

	Interest rate risk	Foreign currency risk	Equity risk	Consumer price index risk
Mismatches in some critical terms of hedging instrument and hedged item	✓	✓	✓	✓
Differences in valuation methodologies including discounting factor	✓	✓		✓
Changes in timing and amount of forecasted hedged items		✓		✓
Differences due to the use of non-zero fair value hedging instruments	✓	✓		

Hedging relationships that frequently reset

The Company uses a portfolio of derivatives as a fair value hedge of foreign exchange rate and interest rate fluctuations of fixed rate debt instruments denominated in non-functional currencies, as well as interest rate fluctuations of guaranteed insurance liabilities. The risk management objective is to hedge these foreign exchange and interest rate fluctuations with a hedge horizon of three months. At the end of each hedge horizon, the hedging relationships mature; and new fair value hedging relationships are designated with a newly designated pool of hedging instruments and hedged items.

Fair value hedges

The Company uses interest rate swaps to manage its exposure to changes in the fair value of fixed rate financial instruments and guaranteed insurance liabilities due to changes in interest rates. The Company also uses cross currency swaps to manage its exposure to foreign exchange rate fluctuations, interest rate fluctuations, or both.

The Company recognizes gains and losses on derivatives and the related hedged items in fair value hedges in total investment result. These investment gains (losses) are shown in the following table.

For the year ended December 31, 2023	Change in value of the hedged item for ineffectiveness measurement	Change in value of the hedging instrument for ineffectiveness measurement	Ineffectiveness recognized in Total investment result	Carrying amount for hedged items[1]	Accumulated fair value adjustments on hedged items	Accumulated fair value adjustments on de-designated hedged items
Assets						
Interest rate risk						
Debt securities at FVOCI	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 241**
Foreign currency and interest rate risk						
Debt securities at FVOCI	**742**	**(778)**	**(36)**	**9,191**	**576**	**(405)**
Total assets	**$ 742**	**$ (778)**	**$ (36)**	**$ 9,191**	**$ 576**	**$ (164)**
Liabilities						
Interest rate risk						
Insurance contract liabilities	**$ (53)**	**$ 185**	**$ 132**	**$ 29,133**	**$ (2,658)**	**$ 2,642**
Total liabilities	**$ (53)**	**$ 185**	**$ 132**	**$ 29,133**	**$ (2,658)**	**$ 2,642**

For the year ended December 31, 2022	Change in value of the hedged item for ineffectiveness measurement	Change in value of the hedging instrument for ineffectiveness measurement	Ineffectiveness recognized in Total investment result	Carrying amount for hedged items	Accumulated fair value adjustments on hedged items	Accumulated fair value adjustments on de-designated hedged items
Assets[2]						
Interest rate risk						
Debt securities at FVOCI	$ -	$ -	$ -	$ -	$ -	$ 265
Foreign currency and interest rate risk						
Debt securities at FVOCI	7	(5)	2	31	7	-
Total assets	$ 7	$ (5)	$ 2	$ 31	$ 7	$ 265
Total liabilities	$ -	$ -	$ -	$ -	$ -	$ -

(1) The carrying amounts for hedged items presented are related to hedged items in active hedging relationships as at the reporting date. Out of the $9,191 related to assets, $9,160 relates to new hedge relationships designated under IFRS 9 and accordingly, no amounts related to these new hedge relationships are presented for the comparative period. Further, $29,133 related to liabilities are new hedge relationships designated under IFRS 9 and accordingly, no amounts related to these new hedge relationships are presented for the comparative period.

(2) Represents hedge relationships previously designated under IAS 39.

Cash flow hedges

The Company uses interest rate swaps to hedge the variability in cash flows from variable rate financial instruments and from forecasted transactions. The Company also uses cross currency swaps and foreign currency forward contracts to hedge the variability from foreign currency financial instruments and foreign currency expenses. Total return swaps are used to hedge the variability in cash flows associated with certain stock-based compensation awards. Inflation swaps are used to reduce inflation risk generated from inflation-indexed liabilities.

The effects of derivatives in cash flow hedging relationships on the Consolidated Statements of Income and the Consolidated Statements of Comprehensive Income are shown in the following table. The effective portion of the change in fair value of hedging instruments associated with the Consumer Price Index ("CPI") cash flow hedge accounting program is presented in AOCI, in the same line as the hedged item – Insurance finance income (expenses). The accumulated other comprehensive income (loss) balances of $(152) as at December 31, 2023 (2022 – $(87)) are all related to continuing cash flow hedges, of which $(85) (December 31, 2022 – $nil) related to CPI cash flow hedges that were reported in AOCI – Insurance finance income (expenses). There is $nil balance in AOCI related to de-designated hedges as at December 31, 2023 and December 31, 2022, respectively.

For the year ended December 31, 2023	Hedged items in qualifying cash flow hedging relationships	Change in fair value of hedged items for ineffectiveness measurement	Change in fair value of hedging instruments for ineffectiveness measurement	Gains (losses) deferred in AOCI on derivatives	Gains (losses) reclassified from AOCI into Total investment result	Ineffectiveness recognized in Total investment result
Interest rate risk						
Treasury locks	Forecasted liability issuance	**$ (1)**	**$ 1**	**$ 1**	**$ -**	**$ -**
Foreign exchange risk						
Foreign currency swaps	Fixed rate liabilities	**-**	**-**	**-**	**-**	**-**
Interest and foreign exchange risk						
Foreign currency swaps	Floating rate liabilities	**(23)**	**23**	**23**	**16**	**-**
Equity price risk						
Equity contracts	Stock-based compensation	**(40)**	**40**	**40**	**3**	**-**
CPI risk						
Interest rate swaps[1]	Inflation linked insurance liabilities	**4**	**(4)**	**(4)**	**81**	**-**
Total		**$ (60)**	**$ 60**	**$ 60**	**$ 100**	**$ -**

For the year ended December 31, 2022	Hedged items in qualifying cash flow hedging relationships	Change in fair value of hedged items for ineffectiveness measurement	Change in fair value of hedging instruments for ineffectiveness measurement	Gains (losses) deferred in AOCI on derivatives	Gains (losses) reclassified from AOCI into Total investment result	Ineffectiveness recognized in Total investment result
Foreign exchange risk						
Foreign currency swaps	Fixed rate assets	$ 1	$ (1)	$ (1)	$ (1)	$ -
	Fixed rate liabilities	-	-	-	-	-
Interest and foreign exchange risk						
Foreign currency swaps	Floating rate liabilities	(175)	175	175	(49)	-
Equity price risk						
Equity contracts	Stock-based compensation	(2)	2	2	6	-
Total		$ (176)	$ 176	$ 176	$ (44)	$ -

[1] Gains (losses) deferred in AOCI on derivatives are presented in AOCI under Insurance finance income (expenses).

The Company anticipates that net losses of approximately $36 will be reclassified from AOCI to net income within the next 12 months. The maximum time frame for which variable cash flows are hedged is 13 years with exception to CPI hedge relationships where the maximum time frame for which variable cash flows are hedged is 29 years.

The table below details the balances in the Company's cash flow hedge reserve.

As at December 31,	**2023**	2022
Balances in the cash flow hedge reserve for continuing hedges	**$ (152)**	$ (112)
Balances remaining in the cash flow hedge reserve on de-designated hedges	**-**	-
Total	**$ (152)**	$ (112)

Hedges of net investments in foreign operations

The Company uses non-functional currency denominated long-term debt (refer to note 10) and forward currency contracts to mitigate the foreign exchange translation risk of net investments in foreign operations.

The effects of net investment hedging relationships on the Consolidated Statements of Income and the Consolidated Statements of Other Comprehensive Income are shown in the following table.

For the year ended December 31, 2023	Change in fair value of hedged items for ineffectiveness measurement	Change in fair value of hedging instruments for ineffectiveness measurement	Gains (losses) deferred in AOCI	Gains (losses) reclassified from AOCI into Total investment result	Ineffectiveness recognized in Total investment result
Non-functional currency denominated debt	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Foreign currency swaps	**(156)**	**156**	**156**	**5**	**-**
Forward currency contracts	**(1)**	**1**	**1**	**-**	**-**
Total	**$ (157)**	**$ 157**	**$ 157**	**$ 5**	**$ -**

For the year ended December 31, 2022	Change in fair value of hedged items for ineffectiveness measurement	Change in fair value of hedging instruments for ineffectiveness measurement	Gains (losses) deferred in AOCI	Gains (losses) reclassified from AOCI into Total investment result	Ineffectiveness recognized in Total investment result
Non-functional currency denominated debt	$ -	$ -	$ -	$ -	$ -
Foreign currency swaps	97	(97)	(97)	-	-
Forward currency contracts	(14)	14	14	-	-
Total	$ 83	$ (83)	$ (83)	$ -	$ -

The table below details the balances in the Company's net investment hedge reserve.

As at December 31,	2023	2022
Balances in the foreign currency translation reserve for continuing hedges	$ 126	$ (26)
Balances remaining in the net investment hedge reserve on de-designated hedges	-	-
Total	**$ 126**	$ (26)

Reconciliation of accumulated other comprehensive income (loss) related to cash flow hedges

For the year ended December 31, 2023	Accumulated other comprehensive income (loss), beginning of the year	Hedging gains (losses) recognized in AOCI during the year	Reclassification from AOCI to income	Accumulated other comprehensive income (loss), end of the year	Reclassification adjustment related to de-designated hedges as hedged item affects income	Reclassification adjustment related to items for which the hedged future cash flows are no longer expected to occur
Interest rate risk	$ -	$ 1	$ -	$ 1	$ -	$ -
Interest rate and foreign exchange risk	(114)	23	16	(107)	-	-
Foreign exchange translation risk	-	-	-	-	-	-
CPI risk	-	(4)	81	(85)	-	-
Equity price risk	2	40	3	39	-	-
Total	$ (112)	$ 60	$ 100	$ (152)	$ -	$ -

For the year ended December 31, 2022	Accumulated other comprehensive income (loss), beginning of the year	Hedging gains (losses) recognized in AOCI during the year	Reclassification from AOCI to income	Accumulated other comprehensive income (loss), end of the year	Reclassification adjustment related to de-designated hedges as hedged item affects income	Reclassification adjustment related to items for which the hedged future cash flows are no longer expected to occur
Interest rate risk	$ -	$ -	$ -	$ -	$ -	$ -
Interest rate and foreign exchange risk	(313)	175	(49)	(89)	-	-
Foreign exchange translation risk	-	(1)	(1)	-	-	-
CPI risk	-	-	-	-	-	-
Equity price risk	6	2	6	2	-	-
Total	$ (307)	$ 176	$ (44)	$ (87)	$ -	$ -

Reconciliation of accumulated other comprehensive income (loss) related to net investment hedges

For the year ended December 31, 2023	Accumulated other comprehensive income (loss), beginning of the year	Hedging gains (losses) recognized in AOCI during the year	Reclassification from AOCI to income	Accumulated other comprehensive income (loss), end of the year	Reclassification adjustment related to de-designated hedges as hedged item affects income	Reclassification adjustment related to items for which the hedged future cash flows are no longer expected to occur
Foreign exchange risk	$ (62)	$ 156	$ 5	$ 89	$ -	$ -
Foreign exchange translation risk	36	1	-	37	-	-
Total	$ (26)	$ 157	$ 5	$ 126	$ -	$ -

For the year ended December 31, 2022	Accumulated other comprehensive income (loss), beginning of the year	Hedging gains (losses) recognized in AOCI during the year	Reclassification from AOCI to income	Accumulated other comprehensive income (loss), end of the year	Reclassification adjustment related to de-designated hedges as hedged item affects income	Reclassification adjustment related to items for which the hedged future cash flows are no longer expected to occur
Foreign exchange risk	$ 96	$ (97)	$ -	$ (1)	$ -	$ -
Foreign exchange translation risk	22	14	-	36	-	-
Total	$ 118	$ (83)	$ -	$ 35	$ -	$ -

Cost of hedging

The Company has elected to apply IFRS 9's cost of hedging guidance retrospectively for certain hedging relationships existing on January 1, 2023. The excluded components from hedging relationships related to forward elements and foreign currency basis spreads are presented in AOCI as cost of hedging. The following table provides details of the movement in the cost of hedging by hedged risk category.

		For the year ended December 31, 2023
Foreign exchange risk		
Balance, beginning of year	**$**	**60**
Changes in fair value		**(19)**
Amount reclassified to profit or loss		**2**
Balance, end of year	**$**	**39**
Foreign exchange and interest rate risk		
Balance, beginning of year	**$**	**25**
Changes in fair value		**(8)**
Amount reclassified to profit or loss		**(1)**
Balance, end of year	**$**	**18**

(c) Derivatives not designated in qualifying hedge accounting relationships

The Company uses derivatives to economically hedge various financial risks, however, not all derivatives qualify for hedge accounting and in some cases, the Company has not elected to apply hedge accounting. As noted above, upon adoption of IFRS 9, the Company has prospectively designated additional existing derivatives in hedge accounting relationships. Below are the investment income impacts of derivatives not designated in qualifying hedge accounting relationships.

Investment income (loss) on derivatives not designated in qualifying hedge accounting relationships

For the years ended December 31,		**2023**		2022
Interest rate swaps	**$**	**667**	$	(3,428)
Interest rate futures		**57**		(431)
Interest rate options		**(13)**		(258)
Foreign currency swaps		**6**		1,158
Currency rate futures		**(22)**		(103)
Forward contracts		**615**		(7,558)
Equity futures		**(449)**		794
Equity contracts		**325**		(818)
Total	**$**	**1,186**	$	(10,644)

(d) Embedded derivatives

Certain insurance contracts contain features that are classified as embedded derivatives and are measured separately at FVTPL, including reinsurance contracts related to guaranteed minimum income benefits and contracts containing certain credit and interest rate features.

Certain reinsurance contracts related to guaranteed minimum income benefits contain embedded derivatives requiring separate measurement at FVTPL as the financial component contained in the reinsurance contracts does not contain significant insurance risk. Claims recovered under reinsurance ceded contracts offset claims expenses and claims paid on the reinsurance assumed. As at December 31, 2023, reinsurance ceded guaranteed minimum income benefits had a fair value of $402 (2022 – $535) and reinsurance assumed guaranteed minimum income benefits had a fair value of $46 (2022 – $58).

The Company's credit and interest rate embedded derivatives promise to pay the returns on a portfolio of assets to the contract holder. These embedded derivatives contain credit and interest rate risks that are financial risks embedded in the underlying insurance and investment contract. As at December 31, 2023, these embedded derivative liabilities had a fair value of $487 (2022 – $395).

Other insurance contract features which are classified as embedded derivatives but are exempt from separate measurement at fair value include variable universal life and variable life products' minimum guaranteed credited rates, no lapse guarantees, guaranteed annuitization options, CPI indexing of benefits, and segregated fund minimum guarantees other than reinsurance ceded/assumed guaranteed minimum income benefits. These embedded derivatives are measured and reported within insurance contract liabilities and are exempt from separate fair value measurement as they contain insurance risk and/or are closely related to the insurance host contract.

Note 6 Goodwill and Intangible Assets

(a) Change in the carrying value of goodwill and intangible assets

The following table presents the change in carrying value of goodwill and intangible assets.

For the year ended December 31, 2023	Balance, January 1, 2023	Net additions/ (disposals)	Amortization expense	Effect of changes in foreign exchange rates	Balance, December 31, 2023
Goodwill	**$ 6,014**	**$ -**	**$ n/a**	**$ (95)**	**$ 5,919**
Indefinite life intangible assets					
Brand	**813**	**-**	**n/a**	**(22)**	**791**
Fund management contracts and other[1]	**1,048**	**-**	**n/a**	**(14)**	**1,034**
	1,861	**-**	**n/a**	**(36)**	**1,825**
Finite life intangible assets[2]					
Distribution networks	**881**	**31**	**(53)**	**(25)**	**834**
Customer relationships	**643**	**(4)**	**(53)**	**(4)**	**582**
Software	**1,068**	**274**	**(217)**	**(23)**	**1,102**
Other	**52**	**11**	**(5)**	**(10)**	**48**
	2,644	**312**	**(328)**	**(62)**	**2,566**
Total intangible assets	**4,505**	**312**	**(328)**	**(98)**	**4,391**
Total goodwill and intangible assets	**$ 10,519**	**$ 312**	**$ (328)**	**$ (193)**	**$ 10,310**

For the year ended December 31, 2022	Balance, January 1, 2022	Net additions/ (disposals)[3],[4]	Amortization expense	Effect of changes in foreign exchange rates	Balance, December 31, 2022
Goodwill	$ 5,651	$ 255	$ n/a	$ 108	$ 6,014
Indefinite life intangible assets					
Brand	761	-	n/a	52	813
Fund management contracts and other[1]	788	228	n/a	32	1,048
	1,549	228	n/a	84	1,861
Finite life intangible assets[2]					
Distribution networks	888	6	(47)	34	881
Customer relationships	687	-	(56)	12	643
Software	1,091	192	(235)	20	1,068
Other	49	7	(6)	2	52
	2,715	205	(344)	68	2,644
Total intangible assets	4,264	433	(344)	152	4,505
Total goodwill and intangible assets	$ 9,915	$ 688	$ (344)	$ 260	$ 10,519

(1) Fund management contracts are mostly allocated to Canada WAM and U.S. WAM CGUs with carrying values of $273 (2022 – $273) and $386 (2022 – $397), respectively.

(2) Gross carrying amount of finite life intangible assets was $2,955 for software, $1,511 for distribution networks, $1,136 for customer relationships and $138 for other (2022 – $2,736, $1,517, $1,146 and $136), respectively.

(3) In November 2022, the Company acquired control of Manulife Fund Management Co., Ltd., formerly known as Manulife TEDA Fund Management Co., Ltd, through the purchase of the remaining 51% of shares that it did not already own from its joint venture partner. The transaction included cash consideration of $334 and derecognition of the Company's previous joint venture interest with a fair value of $321. Goodwill, indefinite life fund management contracts and distribution networks, and finite life management contracts, included in Other, of $255, $185, $52 and $3 were recognized.

(4) In January 2022, the Company paid $256 to VietinBank for an extension of the life of the distribution agreement acquired from Aviva Plc in December, 2021.

(b) Goodwill impairment testing

The Company completed its annual goodwill impairment testing in the fourth quarter of 2023 by determining the recoverable amounts of its businesses using valuation techniques discussed below (refer to notes 1 (f) and 6 (c)). The testing indicated that there was no impairment of goodwill in 2023 (2022 – $nil).

The following tables present the carrying value of goodwill by CGU or group of CGUs.

For the year ended December 31, 2023 CGU or group of CGUs	Balance, January 1, 2023	Net additions/ (disposals)	Effect of changes in foreign exchange rates	Balance, December 31, 2023
Asia				
Asia Insurance (excluding Japan)	**$ 162**	**$ -**	**$ (3)**	**$ 159**
Japan Insurance	**360**	**-**	**(32)**	**328**
Canada Insurance	**1,960**	**-**	**(2)**	**1,958**
U.S. Insurance	**360**	**-**	**(10)**	**350**
Global Wealth and Asset Management				
Asia WAM	**450**	**-**	**(12)**	**438**
Canada WAM	**1,436**	**-**	**-**	**1,436**
U.S. WAM	**1,286**	**-**	**(36)**	**1,250**
Total	**$ 6,014**	**$ -**	**$ (95)**	**$ 5,919**

For the year ended December 31, 2022 CGU or group of CGUs	Balance, January 1, 2022	Net additions/ (disposals)	Effect of changes in foreign exchange rates	Balance, December 31, 2022
Asia				
Asia Insurance (excluding Japan)	$ 152	$ -	$ 10	$ 162
Japan Insurance	386	-	(26)	360
Canada Insurance	1,955	-	5	1,960
U.S. Insurance	336	-	24	360
Global Wealth and Asset Management				
Asia WAM	183	255	12	450
Canada WAM	1,436	-	-	1,436
U.S. WAM	1,203	-	83	1,286
Total	$ 5,651	$ 255	$ 108	$ 6,014

The valuation techniques, significant assumptions and sensitivities, where applicable, applied in the goodwill impairment testing are described below.

(c) Valuation techniques

When determining if a CGU is impaired, the Company compares its recoverable amount to the allocated capital for that unit, which is aligned with the Company's internal reporting practices. The recoverable amounts were based on fair value less costs to sell ("FVLCS") for Asia Insurance (excluding Japan) and Asia WAM. For other CGUs, value-in-use ("VIU") was used.

Under the FVLCS approach, the Company determines the fair value of the CGU or group of CGUs using an earnings-based approach which incorporates forecasted earnings, excluding interest and equity market impacts and normalized new business expenses multiplied by an earnings-multiple derived from the observable price-to-earnings multiples of comparable financial institutions. The price-to-earnings multiple used by the Company for testing ranged from 5.1 to 12.7 (2022 – 4.4 to 11.6). These FVLCS valuations are categorized as Level 3 of the fair value hierarchy (2022 – Level 3).

Under the VIU approach, used for CGUs with insurance business, an embedded appraisal value is determined from a projection of future distributable earnings derived from both the in-force business and new business expected to be sold in the future, and therefore, reflects the economic value for each CGU's or group of CGUs' profit potential under a set of assumptions. This approach requires assumptions including sales and revenue growth rates, capital requirements, interest rates, equity returns, mortality, morbidity, policyholder behaviour, tax rates and discount rates. For non-insurance CGUs, the VIU is based on discounted cash flow analysis which incorporates relevant aspects of the embedded appraisal value approach.

(d) Significant assumptions

To calculate an insurance appraisal value, the Company discounted projected earnings from in-force contracts and valued 20 years of new business growing at expected plan levels, consistent with the periods used for forecasting long-term businesses such as insurance. In arriving at its projections, the Company considered past experience, economic trends such as interest rates, equity returns and product mix as well as industry and market trends. Where growth rate assumptions for new business cash flows were used in the embedded appraisal value calculations, they ranged from zero per cent to 13.0 per cent (2022 – zero per cent to nine per cent).

Interest rate assumptions are based on prevailing market rates at the valuation date.

Tax rates applied to the projections include the impact of internal reinsurance treaties and were 28.0 per cent, 27.8 per cent and 21.0 per cent for the Japan, Canada and U.S. jurisdictions, respectively (2022 – 28.0 per cent, 27.5 per cent and 21.0 per cent, respectively). Tax assumptions are sensitive to changes in tax laws as well as assumptions about the jurisdictions in which profits are earned. It is possible that effective tax rates could differ from those assumed.

Discount rates assumed in determining the value-in-use for applicable CGUs or group of CGUs ranged from 10.0 per cent to 13.0 per cent on an after-tax basis or 12.5 per cent to 16.3 per cent on a pre-tax basis (2022 – 10.0 per cent to 12.0 per cent on an after-tax basis or 12.5 per cent to 15.0 per cent on a pre-tax basis).

Key assumptions may change as economic and market conditions change, which may lead to impairment charges in the future. Adverse changes in discount rates (including from changes in interest rates) and growth rate assumptions for new business cash flow projections used in the determination of embedded appraisal values or reductions in market-based earnings multiples calculations may result in impairment charges in the future which could be material.

Note 7 Insurance and Reinsurance Contract Assets and Liabilities

(a) Composition

Portfolio of insurance contracts that are assets and those that are liabilities, and portfolios of reinsurance contracts that are assets and those that are liabilities, are presented separately in the Consolidated Statements of Financial Position. The components of net insurance and reinsurance contract liabilities are shown below. The composition of insurance contract assets and liabilities, and reinsurance contract held assets and liabilities by the reporting segment is as follows.

Insurance contract asset and liabilities

	2023				2022			
As at December 31,	Insurance contract assets	Insurance contract liabilities	Insurance contract liabilities for account of segregated fund holders	Net insurance contract liabilities	Insurance contract assets	Insurance contract liabilities	Insurance contract liabilities for account of segregated fund holders	Net insurance contract liabilities
Asia	**$ (108)**	**$ 131,729**	**$ 22,696**	**$ 154,317**	$ (527)	$ 121,105	$ 21,005	$ 141,583
Canada	**(33)**	**80,169**	**36,085**	**116,221**	(81)	74,876	35,695	110,490
U.S.	**-**	**157,699**	**55,362**	**213,061**	(56)	159,501	53,516	212,961
Corporate and Other	**(4)**	**(781)**	**-**	**(785)**	-	163	-	163
Insurance contract balances	**(145)**	**368,816**	**114,143**	**482,814**	(664)	355,645	110,216	465,197
Assets for insurance acquisition cash flows	**-**	**(820)**	**-**	**(820)**	(9)	(796)	-	(805)
Total	**$ (145)**	**$ 367,996**	**$ 114,143**	**$ 481,994**	$ (673)	$ 354,849	$ 110,216	$ 464,392

Reinsurance contract held asset and liabilities

	2023			2022		
As at December 31,	Assets	Liabilities	Net reinsurance contract held assets	Assets	Liabilities	Net reinsurance contract held assets
Asia	**$ 3,540**	**$ (1,909)**	**$ 1,631**	$ 3,306	$ (1,462)	$ 1,844
Canada	**1,922**	**(913)**	**1,009**	1,756	(911)	845
U.S.	**37,437**	**(14)**	**37,423**	40,384	(18)	40,366
Corporate and Other	**(248)**	**5**	**(243)**	425	-	425
Total	**$ 42,651**	**$ (2,831)**	**$ 39,820**	$ 45,871	$ (2,391)	$ 43,480

As at December 31,	**2023**	2022
Net insurance contract held liabilities	**$ 481,994**	$ 464,392
Net reinsurance contract held assets	**(39,820)**	(43,480)
Net insurance and reinsurance contract held liabilities	**$ 442,174**	$ 420,912

(b) Movements in carrying amounts of insurance and reinsurance contracts

The following tables present the movement in the net carrying amounts of insurance contracts issued and reinsurance contracts held during the year for the Company and for each reporting segment. The changes include amounts that are recognized in income and OCI, and movements due to cash flows. There are two types of tables presented:

- Tables which analyze movements in the net assets or liabilities for remaining coverage and for incurred claims separately and reconcile them to the relevant Consolidated Statements of Income and Consolidated Statements of Comprehensive Income line items.
- Tables which analyze movements of contracts by measurement components including estimates of the present value of future cash flows, risk adjustment and CSM for portfolios.

(l) Total

Insurance contracts – Analysis by remaining coverage and incurred claims

The following tables present the movement in the net assets or liabilities for insurance contracts issued, showing the amounts for remaining coverage and the amounts for incurred claims for the years ended December 31, 2023 and December 31, 2022.

	Liabilities for remaining coverage		Liabilities for incurred claims				
	Excluding loss component	Loss component	Products not under PAA	PAA Estimates of PV of future cash flows	PAA Risk adjustment for non-financial risk	Assets for insurance acquisition cash flows	Total
Opening insurance contract assets	$ (659)	$ -	$ 7	$ (12)	$ -	$ (9)	$ (673)
Opening insurance contract liabilities	336,981	1,328	5,857	10,877	602	(796)	354,849
Opening insurance contract liabilities for account of segregated fund holders	110,216	-	-	-	-	-	110,216
Net opening balance, January 1, 2023	446,538	1,328	5,864	10,865	602	(805)	464,392
Insurance revenue							
Expected incurred claims and other insurance service result	(13,165)	-	-	-	-	-	(13,165)
Change in risk adjustment for non-financial risk expired	(1,497)	-	-	-	-	-	(1,497)
CSM recognized for services provided	(2,162)	-	-	-	-	-	(2,162)
Recovery of insurance acquisition cash flows	(853)	-	-	-	-	-	(853)
Contracts under PAA	(6,295)	-	-	-	-	-	(6,295)
	(23,972)	-	-	-	-	-	(23,972)
Insurance service expense							
Incurred claims and other insurance service expenses	-	(320)	13,446	6,136	254	-	19,516
Losses and reversal of losses on onerous contracts (future service)	-	90	-	-	-	-	90
Changes to liabilities for incurred claims (past service)	-	-	(31)	(1,605)	(242)	-	(1,878)
Amortization of insurance acquisition cash flows	1,654	-	-	-	-	-	1,654
Net impairment of assets for insurance acquisition cash flows	-	-	-	-	-	-	-
	1,654	(230)	13,415	4,531	12	-	19,382
Investment components and premium refunds	(19,080)	-	17,148	1,932	-	-	-
Insurance service result	(41,398)	(230)	30,563	6,463	12	-	(4,590)
Insurance finance (income) expenses	24,268	32	15	848	11	-	25,174
Effects of movements in foreign exchange rates	(9,657)	(38)	(71)	(12)	-	7	(9,771)
Total changes in income and OCI	(26,787)	(236)	30,507	7,299	23	7	10,813
Cash flows							
Premiums and premium tax received	48,381	-	-	-	-	-	48,381
Claims and other insurance service expenses paid, including investment components	-	-	(30,706)	(7,719)	-	-	(38,425)
Insurance acquisition cash flows	(6,920)	-	-	-	-	-	(6,920)
Total cash flows	41,461	-	(30,706)	(7,719)	-	-	3,036
Allocation from assets for insurance acquisition cash flows to groups of insurance contracts	(152)	-	-	-	-	152	-
Acquisition cash flows incurred in the year	-	-	-	-	-	(174)	(174)
Movements related to insurance contract liabilities for account of segregated fund holders	3,927	-	-	-	-	-	3,927
Net closing balance	464,987	1,092	5,665	10,445	625	(820)	481,994
Closing insurance contract assets	(201)	-	56	-	-	-	(145)
Closing insurance contract liabilities	351,045	1,092	5,609	10,445	625	(820)	367,996
Closing insurance contract liabilities for account of segregated fund holders	114,143	-	-	-	-	-	114,143
Net closing balance, December 31, 2023	$ 464,987	$ 1,092	$ 5,665	$ 10,445	$ 625	$ (820)	$ 481,994

Insurance finance (income) expenses ("IFIE")	
Insurance finance (income) expenses, per disclosure above	$ 25,174
Reclassification of derivative OCI to IFIE – cash flow hedges	3
Reclassification of derivative (income) loss changes to IFIE – fair value hedge	(185)
Insurance finance (income) expenses, per disclosure in note 7 (f)	$ 24,992

Insurance contracts – Analysis by remaining coverage and incurred claims (continued)

	Liabilities for remaining coverage		Liabilities for incurred claims				
	Excluding loss component	Loss component	Products not under PAA	PAA Estimates of PV of future cash flows	PAA Risk adjustment for non-financial risk	Assets for insurance acquisition cash flows	Total
Opening insurance contract assets	$ (842)	$ -	$ 60	$ 27	$ -	$ (217)	$ (972)
Opening insurance contract liabilities	388,585	303	4,342	12,230	689	(528)	405,621
Opening insurance contract liabilities for account of segregated fund holders	130,836	-	-	-	-	-	130,836
Net opening balance, January 1, 2022	518,579	303	4,402	12,257	689	(745)	535,485
Insurance revenue							
Expected incurred claims and other insurance service result	(13,019)	-	-	-	-	-	(13,019)
Change in risk adjustment for non-financial risk expired	(1,665)	-	-	-	-	-	(1,665)
CSM recognized for service provided	(2,298)	-	-	-	-	-	(2,298)
Recovery of insurance acquisition cash flows	(534)	-	-	-	-	-	(534)
Contracts under PAA	(5,602)	-	-	-	-	-	(5,602)
	(23,118)	-	-	-	-	-	(23,118)
Insurance service expense							
Incurred claims and other insurance service expenses	-	233	12,775	5,982	266	-	19,256
Losses and reversal of losses on onerous contracts (future service)	-	742	-	-	-	-	742
Changes to liabilities for incurred claims (past service)	-	-	(41)	(1,554)	(353)	-	(1,948)
Amortization of insurance acquisition cash flows	1,285	-	-	-	-	-	1,285
Net impairment of assets for insurance acquisition cash flows	-	-	-	-	-	-	-
	1,285	975	12,734	4,428	(87)	-	19,335
Investment components and premium refunds	(18,222)	-	16,514	1,708	-	-	-
Insurance service result	(40,055)	975	29,248	6,136	(87)	-	(3,783)
Insurance finance (income) expenses	(68,366)	9	753	(1,229)	-	-	(68,833)
Effects of movements in foreign exchange rates	15,886	41	136	12	-	(14)	16,061
Total changes in income and OCI	(92,535)	1,025	30,137	4,919	(87)	(14)	(56,555)
Cash flows							
Premiums and premium tax received	47,526	-	-	-	-	-	47,526
Claims and other insurance service expenses paid, including investment components	-	-	(28,675)	(6,311)	-	-	(34,986)
Insurance acquisition cash flows	(6,266)	-	-	-	-	-	(6,266)
Total cash flows	41,260	-	(28,675)	(6,311)	-	-	6,274
Allocation from assets for insurance acquisition cash flows to groups of insurance contracts	(146)	-	-	-	-	146	-
Acquisition cash flows incurred in the year	-	-	-	-	-	(192)	(192)
Movements related to insurance contract liabilities for account of segregated fund holders	(20,620)	-	-	-	-	-	(20,620)
Net closing balance	446,538	1,328	5,864	10,865	602	(805)	464,392
Closing insurance contract assets	(659)	-	7	(12)	-	(9)	(673)
Closing insurance contract liabilities	336,981	1,328	5,857	10,877	602	(796)	354,849
Closing insurance contract liabilities for account of segregated fund holders	110,216	-	-	-	-	-	110,216
Net closing balance, December 31, 2022	$ 446,538	$ 1,328	$ 5,864	$ 10,865	$ 602	$ (805)	$ 464,392

Insurance finance (income) expenses	
Insurance finance (income) expenses, per disclosure above	$ (68,833)
Reclassification of derivative OCI to IFIE – cash flow hedges	-
Reclassification of derivative (income) loss changes to IFIE – fair value hedge	-
Insurance finance (income) expenses, per disclosure in note 7 (f)	$ (68,833)

Insurance contracts – Analysis by measurement components

The following tables present the movement in the net assets or liabilities for insurance contracts issued, showing estimates of the present value of future cash flows, risk adjustment and CSM for the years ended December 31, 2023 and December 31, 2022.

	Estimates of PV of future cash flows	Risk adjustment for non-financial risk	CSM – Fair value	CSM – Other	Assets for insurance acquisition cash flows	Total
Opening GMM and VFA insurance contract assets	$ (1,827)	$ 512	$ 100	$ 557	$ -	$ (658)
Opening GMM and VFA insurance contract liabilities	297,967	25,750	17,105	2,087	(56)	342,853
Opening PAA insurance contract net liabilities	12,125	605	-	-	(749)	11,981
Opening insurance contract liabilities for account of segregated fund holders	110,216	-	-	-	-	110,216
Net opening balance, January 1, 2023	**418,481**	**26,867**	**17,205**	**2,644**	**(805)**	**464,392**
CSM recognized for services provided	-	-	(1,812)	(350)	-	(2,162)
Change in risk adjustment for non-financial risk for risk expired	-	(1,620)	-	-	-	(1,620)
Experience adjustments	152	-	-	-	-	152
Changes that relate to current services	**152**	**(1,620)**	**(1,812)**	**(350)**	**-**	**(3,630)**
Contracts initially recognized during the year	(3,295)	1,180	-	2,368	-	253
Changes in estimates that adjust the CSM	1,585	(3,859)	2,214	60	-	-
Changes in estimates that relate to losses and reversal of losses on onerous contracts	(174)	12	-	-	-	(162)
Changes that relate to future services	**(1,884)**	**(2,667)**	**2,214**	**2,428**	**-**	**91**
Adjustments to liabilities for incurred claims	(28)	(4)	-	-	-	(32)
Changes that relate to past services	**(28)**	**(4)**	**-**	**-**	**-**	**(32)**
Insurance service result	**(1,760)**	**(4,291)**	**402**	**2,078**	**-**	**(3,571)**
Insurance finance (income) expenses	22,340	1,646	244	76	-	24,306
Effects of movements in foreign exchange rates	(8,405)	(779)	(438)	(107)	-	(9,729)
Total changes in income and OCI	**12,175**	**(3,424)**	**208**	**2,047**	**-**	**11,006**
Total cash flows	2,081	-	-	-	-	2,081
Allocation from assets for insurance acquisition cash flows to groups of insurance contracts	(5)	-	-	-	5	-
Acquisition cash flows incurred in the year	-	-	-	-	(8)	(8)
Change in PAA balance	587	21	-	-	(12)	596
Movements related to insurance contract liabilities for account of segregated fund holders	3,927	-	-	-	-	3,927
Net closing balance	**437,246**	**23,464**	**17,413**	**4,691**	**(820)**	**481,994**
Closing GMM and VFA insurance contract assets	(416)	141	32	99	-	(144)
Closing GMM and VFA insurance contract liabilities	310,807	22,697	17,381	4,592	(59)	355,418
Closing PAA insurance contract net liabilities	12,712	626	-	-	(761)	12,577
Closing insurance contract liabilities for account of segregated fund insurance holders	114,143	-	-	-	-	114,143
Net closing balance, December 31, 2023	**$ 437,246**	**$ 23,464**	**$ 17,413**	**$ 4,691**	**$ (820)**	**$ 481,994**

Insurance finance (income) expenses	
Insurance finance (income) expenses, per disclosure above	$ 24,306
Reclassification of derivative OCI to IFIE – cash flow hedges	3
Reclassification of derivative (income) loss changes to IFIE – fair value hedge	(120)
PAA items:	
PAA IFIE per disclosure	868
PAA Reclassification of derivative OCI to IFIE – cash flow hedges	-
PAA Reclassification of derivative (income) loss changes to IFIE – fair value hedge	(65)
Insurance finance (income) expenses, per disclosure in note 7 (f)	**$ 24,992**

Insurance contracts – Analysis by measurement components (continued)

	Estimates of PV of future cash flows	Risk adjustment for non-financial risk	CSM Fair value	CSM Other	Assets for insurance acquisition cash flows	Total
Opening GMM and VFA insurance contract assets	$ (1,955)	$ 365	$ 179	$ 453	$ -	$ (958)
Opening GMM and VFA insurance contract liabilities	341,125	30,780	19,842	992	(54)	392,685
Opening PAA insurance contract net liabilities	12,919	694	-	-	(691)	12,922
Opening insurance contract liabilities for account of segregated fund holders	130,836	-	-	-	-	130,836
Net opening balance, January 1, 2022	482,925	31,839	20,021	1,445	(745)	535,485
CSM recognized for services provided	-	-	(2,064)	(234)	-	(2,298)
Change in risk adjustment for non-financial risk for risk expired	-	(1,582)	-	-	-	(1,582)
Experience adjustments	6	-	-	-	-	6
Changes that relate to current services	6	(1,582)	(2,064)	(234)	-	(3,874)
Contracts initially recognized during the year	(2,880)	1,396	35	1,963	-	514
Changes in estimates that adjust the CSM	3,377	(994)	(1,737)	(646)	-	-
Changes in estimates that relate to losses and reversal of losses on onerous contracts	229	(2)	-	-	-	227
Changes that relate to future services	726	400	(1,702)	1,317	-	741
Adjustments to liabilities for incurred claims	(33)	(7)	-	-	-	(40)
Changes that relate to past services	(33)	(7)	-	-	-	(40)
Insurance service result	699	(1,189)	(3,766)	1,083	-	(3,173)
Insurance finance (income) expenses	(62,812)	(5,105)	311	31	-	(67,575)
Effects of movements in foreign exchange rates	13,898	1,411	639	85	-	16,033
Total changes in income and OCI	(48,215)	(4,883)	(2,816)	1,199	-	(54,715)
Total cash flows	5,190	-	-	-	-	5,190
Allocation from assets for insurance acquisition cash flows to groups of insurance contracts	(5)	-	-	-	5	-
Acquisition cash flows incurred in the year	-	-	-	-	(7)	(7)
Change in PAA balance	(794)	(89)	-	-	(58)	(941)
Movements related to insurance contract liabilities for account of segregated fund holders	(20,620)	-	-	-	-	(20,620)
Net closing balance	418,481	26,867	17,205	2,644	(805)	464,392
Closing GMM and VFA insurance contract assets	(1,827)	512	100	557	-	(658)
Closing GMM and VFA insurance contract liabilities	297,967	25,750	17,105	2,087	(56)	342,853
Closing PAA insurance contract net liabilities	12,125	605	-	-	(749)	11,981
Closing insurance contract liabilities for account of segregated fund insurance holders	110,216	-	-	-	-	110,216
Net closing balance, December 31, 2022	$ 418,481	$ 26,867	$ 17,205	$ 2,644	$ (805)	$ 464,392

Insurance finance (income) expenses	
Insurance finance (income) expenses, per disclosure above	$ (67,575)
Reclassification of derivative OCI to IFIE – cash flow hedges	-
Reclassification of derivative (income) loss changes to IFIE – fair value hedge	-
PAA items:	
PAA IFIE per disclosure	(1,258)
PAA Reclassification of derivative OCI to IFIE – cash flow hedges	-
PAA Reclassification of derivative (income) loss changes to IFIE – fair value hedge	-
Insurance finance (income) expenses, per disclosure in note 7 (f)	$ (68,833)

Reinsurance contracts held – Analysis by remaining coverage and incurred claims

The following tables present the movement in the net assets or liabilities for reinsurance contracts held, showing assets for remaining coverage and amounts recoverable on incurred claims arising from business ceded to reinsurers for the years ended December 31, 2023 and December 31, 2022.

	Assets (liabilities) for remaining coverage		Assets (liabilities) for incurred claims			
	Excluding loss recovery component	Loss recovery component	Products not under PAA	PAA Estimates of PV of future cash flows	PAA Risk adjustment for non-financial risk	Total
Opening reinsurance contract held assets	**$ 37,853**	**$ 209**	**$ 7,521**	**$ 280**	**$ 8**	**$ 45,871**
Opening reinsurance contract held liabilities	**(2,196)**	**4**	**(137)**	**(62)**	**-**	**(2,391)**
Net opening balance, January 1, 2023	**35,657**	**213**	**7,384**	**218**	**8**	**43,480**
Changes in income and OCI						
Allocation of reinsurance premium paid	**(6,430)**	**-**	**-**	**-**	**-**	**(6,430)**
Amounts recoverable from reinsurers						
Recoveries of incurred claims and other insurance service expenses	**-**	**(45)**	**5,228**	**568**	**-**	**5,751**
Recoveries and reversals of recoveries of losses on onerous underlying contracts	**-**	**77**	**-**	**-**	**-**	**77**
Adjustments to assets for incurred claims	**-**	**-**	**5**	**(24)**	**8**	**(11)**
Insurance service result	**(6,430)**	**32**	**5,233**	**544**	**8**	**(613)**
Investment components and premium refunds	**(1,519)**	**-**	**1,519**	**-**	**-**	**-**
Net expenses from reinsurance contracts	**(7,949)**	**32**	**6,752**	**544**	**8**	**(613)**
Net finance (income) expenses from reinsurance contracts	**719**	**8**	**(97)**	**9**	**-**	**639**
Effect of changes in non-performance risk of reinsurers	**(14)**	**-**	**-**	**-**	**-**	**(14)**
Effects of movements in foreign exchange rates	**(924)**	**(5)**	**(169)**	**-**	**-**	**(1,098)**
Contracts measured under PAA	**-**	**-**	**-**	**-**	**-**	**-**
Total changes in income and OCI	**(8,168)**	**35**	**6,486**	**553**	**8**	**(1,086)**
Cash flows						
Premiums paid	**4,956**	**-**	**-**	**-**	**-**	**4,956**
Amounts received	**-**	**-**	**(6,971)**	**(559)**	**-**	**(7,530)**
Total cash flows	**4,956**	**-**	**(6,971)**	**(559)**	**-**	**(2,574)**
Net closing balance	**32,445**	**248**	**6,899**	**212**	**16**	**39,820**
Closing reinsurance contract held assets	**35,079**	**246**	**7,035**	**275**	**16**	**42,651**
Closing reinsurance contract held liabilities	**(2,634)**	**2**	**(136)**	**(63)**	**-**	**(2,831)**
Net closing balance, December 31, 2023	**$ 32,445**	**$ 248**	**$ 6,899**	**$ 212**	**$ 16**	**$ 39,820**

	Assets (liabilities) for remaining coverage		Assets (liabilities) for incurred claims			
	Excluding loss recovery component	Loss recovery component	Products not under PAA	PAA Estimates of PV of future cash flows	PAA Risk adjustment for non-financial risk	Total
Opening reinsurance contract held assets	$ 45,699	$ 79	$ 6,740	$ 303	$ 8	$ 52,829
Opening reinsurance contract held liabilities	(2,030)	19	(27)	(41)	-	(2,079)
Net opening balance, January 1, 2022	43,669	98	6,713	262	8	50,750
Changes in income and OCI						
Allocation of reinsurance premium paid	(6,024)	-	-	-	-	(6,024)
Amounts recoverable from reinsurers						
Recoveries of incurred claims and other insurance service expenses	-	(30)	4,925	417	(4)	5,308
Recoveries and reversals of recoveries of losses on onerous underlying contracts	-	132	-	-	-	132
Adjustments to assets for incurred claims	-	-	3	(33)	(9)	(39)
Insurance service result	(6,024)	102	4,928	384	(13)	(623)
Investment components and premium refunds	(1,341)	-	1,341	-	-	-
Net expenses from reinsurance contracts	(7,365)	102	6,269	384	(13)	(623)
Net finance (income) expenses from reinsurance contracts	(9,586)	5	446	(14)	13	(9,136)
Effect of changes in non-performance risk of reinsurers	97	-	-	-	-	97
Effects of movements in foreign exchange rates	2,683	8	455	-	-	3,146
Contracts measured under PAA	-	-	-	-	-	-
Total changes in income and OCI	(14,171)	115	7,170	370	-	(6,516)
Cash flows						
Premiums paid	6,159	-	-	-	-	6,159
Amounts received	-	-	(6,499)	(414)	-	(6,913)
Total cash flows	6,159	-	(6,499)	(414)	-	(754)
Net closing balance	35,657	213	7,384	218	8	43,480
Closing reinsurance contract held assets	37,853	209	7,521	280	8	45,871
Closing reinsurance contract held liabilities	(2,196)	4	(137)	(62)	-	(2,391)
Net closing balance, December 31, 2022	$ 35,657	$ 213	$ 7,384	$ 218	$ 8	$ 43,480

Reinsurance contracts held – Analysis by measurement components

The following tables present the movement in the net assets or liabilities for reinsurance contracts held, showing estimates of the present value of future cash flows, risk adjustment and CSM for the years ended December 31, 2023 and December 31, 2022.

			CSM		
	Estimates of PV of future cash flows	Risk adjustment for non-financial risk	Fair value	Other	Total
Opening reinsurance contract held assets	$ 39,656	$ 4,049	$ 1,774	$ 99	$ 45,578
Opening reinsurance contract held liabilities	(3,919)	1,574	(39)	38	(2,346)
Opening PAA reinsurance contract net assets	240	8	-	-	248
Net opening balance, January 1, 2023	35,977	5,631	1,735	137	43,480
CSM recognized for services received	-	-	(217)	53	(164)
Change in risk adjustment for non-financial risk for risk expired	-	(478)	-	-	(478)
Experience adjustments	(19)	-	-	-	(19)
Changes that relate to current services	(19)	(478)	(217)	53	(661)
Contracts initially recognized during the year	(64)	399	-	(263)	72
Changes in recoveries of losses on onerous underlying contracts that adjust the CSM	-	-	(36)	17	(19)
Changes in estimates that adjust the CSM	1,433	(821)	(821)	209	-
Changes in estimates that relate to losses and reversal of losses on onerous contracts	43	(20)	-	-	23
Changes that relate to future services	1,412	(442)	(857)	(37)	76
Adjustments to liabilities for incurred claims	5	-	-	-	5
Changes that relate to past services	5	-	-	-	5
Insurance service result	1,398	(920)	(1,074)	16	(580)
Insurance finance (income) expenses from reinsurance contracts	173	447	41	(31)	630
Effects of changes in non-performance risk of reinsurers	(14)	-	-	-	(14)
Effects of movements in foreign exchange rates	(916)	(160)	(21)	-	(1,097)
Total changes in income and OCI	641	(633)	(1,054)	(15)	(1,061)
Total cash flows	(2,606)	-	-	-	(2,606)
Change in PAA balance	(1)	8	-	-	7
Net closing balance	34,011	5,006	681	122	39,820
Closing reinsurance contract held assets	38,156	3,685	565	(51)	42,355
Closing reinsurance contract held liabilities	(4,384)	1,305	116	173	(2,790)
Closing PAA reinsurance contract net assets	239	16	-	-	255
Net closing balance, December 31, 2023	$ 34,011	$ 5,006	$ 681	$ 122	$ 39,820

	Estimates of PV of future cash flows	Risk adjustment for non-financial risk	CSM Fair value	CSM Other	Total
Opening reinsurance contract held assets	$ 46,025	$ 4,977	$ 2,012	$ (501)	$ 52,513
Opening reinsurance contract held liabilities	(5,138)	1,719	1,262	105	(2,052)
Opening PAA reinsurance contract net assets	281	8	-	-	289
Net opening balance, January 1, 2022	41,168	6,704	3,274	(396)	50,750
CSM recognized for services received	-	-	(231)	(74)	(305)
Change in risk adjustment for non-financial risk for risk expired	-	(424)	-	-	(424)
Experience adjustments	9	-	-	-	9
Changes that relate to current services	9	(424)	(231)	(74)	(720)
Contracts initially recognized during the year	(1,276)	717	(7)	717	151
Changes in recoveries of losses on onerous underlying contracts that adjust the CSM	-	-	(15)	(50)	(65)
Changes in estimates that adjust the CSM	1,337	173	(1,440)	(70)	-
Changes in estimates that relate to losses and reversal of losses on onerous contracts	106	(60)	-	-	46
Changes that relate to future services	167	830	(1,462)	597	132
Adjustments to liabilities for incurred claims	3	-	-	-	3
Changes that relate to past services	3	-	-	-	3
Insurance service result	179	406	(1,693)	523	(585)
Insurance finance (income) expenses from reinsurance contracts	(7,463)	(1,715)	56	(14)	(9,136)
Effects of changes in non-performance risk of reinsurers	97	-	-	-	97
Effects of movements in foreign exchange rates	2,787	236	98	24	3,145
Total changes in income and OCI	(4,400)	(1,073)	(1,539)	533	(6,479)
Total cash flows	(750)	-	-	-	(750)
Change in PAA balance	(41)	-	-	-	(41)
Net closing balance	35,977	5,631	1,735	137	43,480
Closing reinsurance contract held assets	39,656	4,049	1,774	99	45,578
Closing reinsurance contract held liabilities	(3,919)	1,574	(39)	38	(2,346)
Closing PAA reinsurance contract net assets	240	8	-	-	248
Net closing balance, December 31, 2022	$ 35,977	$ 5,631	$ 1,735	$ 137	$ 43,480

(II) Segment

Carrying balance by measurement components

The following tables present the carrying balances of net assets or liabilities for insurance contracts issued and reinsurance contracts held by measurement components, by reporting segment for the years ended December 31, 2023 and December 31, 2022.

Insurance contracts issued

	Excluding contracts applying the PAA		Contracts applying the PAA		CSM			
As at December 31, 2023	Estimates of PV of future cash flows	Risk adjustment for non-financial risk	Estimates of PV of future cash flows	Risk adjustment for non-financial risk	Fair value	Other	Assets for insurance acquisition cash flows	Total insurance contract liabilities (assets)
Asia	**$ 132,135**	**$ 6,764**	**$ 1,242**	**$ 5**	**$ 10,431**	**$ 3,740**	**$ (271)**	**$ 154,046**
Canada	**96,455**	**3,649**	**11,153**	**621**	**3,851**	**492**	**(549)**	**115,672**
U.S.	**196,921**	**12,438**	**-**	**-**	**3,243**	**459**	**-**	**213,061**
Corporate and Other	**(977)**	**(13)**	**317**	**-**	**(112)**	**-**	**-**	**(785)**
	$ 424,534	**$ 22,838**	**$ 12,712**	**$ 626**	**$ 17,413**	**$ 4,691**	**$ (820)**	**$ 481,994**

	Excluding contracts applying the PAA		Contracts applying the PAA		CSM			
As at December 31, 2022	Estimates of PV of future cash flows	Risk adjustment for non-financial risk	Estimates of PV of future cash flows	Risk adjustment for non-financial risk	Fair value	Other	Assets for insurance acquisition cash flows	Total insurance contract liabilities (assets)
Asia	$ 120,180	$ 10,017	$ 1,136	$ 2	$ 8,067	$ 2,181	$ (283)	$ 141,300
Canada	91,599	3,764	10,532	603	3,811	181	(522)	109,968
U.S.	194,766	12,494	-	-	5,419	282	-	212,961
Corporate and Other	(189)	(13)	457	-	(92)	-	-	163
	$ 406,356	$ 26,262	$ 12,125	$ 605	$ 17,205	$ 2,644	$ (805)	$ 464,392

Reinsurance contracts held

As at December 31, 2023	Excluding contracts applying the PAA Estimates of PV of future cash flows	Excluding contracts applying the PAA Risk adjustment for non-financial risk	Contracts applying the PAA Estimates of PV of future cash flows	Contracts applying the PAA Risk adjustment for non-financial risk	CSM Fair value	CSM Other	Total reinsurance contract liabilities (assets)
Asia	**$ (351)**	**$ 1,326**	**$ (37)**	**$ -**	**$ 623**	**$ 70**	**$ 1,631**
Canada	**(1,238)**	**1,674**	**275**	**16**	**338**	**(56)**	**1,009**
U.S.	**35,461**	**1,997**	**-**	**-**	**(143)**	**108**	**37,423**
Corporate and Other	**(100)**	**(7)**	**1**	**-**	**(137)**	**-**	**(243)**
	$ 33,772	**$ 4,990**	**$ 239**	**$ 16**	**$ 681**	**$ 122**	**$ 39,820**

As at December 31, 2022	Excluding contracts applying the PAA Estimates of PV of future cash flows	Excluding contracts applying the PAA Risk adjustment for non-financial risk	Contracts applying the PAA Estimates of PV of future cash flows	Contracts applying the PAA Risk adjustment for non-financial risk	CSM Fair value	CSM Other	Total reinsurance contract liabilities (assets)
Asia	$ (147)	$ 1,895	$ (39)	$ -	$ 203	$ (68)	$ 1,844
Canada	(1,427)	1,672	277	8	374	(59)	845
U.S.	36,735	2,065	-	-	1,302	264	40,366
Corporate and Other	576	(9)	2	-	(144)	-	425
	$ 35,737	$ 5,623	$ 240	$ 8	$ 1,735	$ 137	$ 43,480

(c) Insurance revenue by transition method

The following table provides information as a supplement to the insurance revenue disclosures in note 7 (b).

For the year ended December 31, 2023	Asia	Canada	U.S.	Other	Total
Contracts under the fair value method	**$ 2,499**	**$ 3,288**	**$ 10,123**	**$ (18)**	**$ 15,892**
Contracts under the full retrospective method	**531**	**48**	**152**	**-**	**731**
Other contracts	**2,026**	**5,283**	**(81)**	**121**	**7,349**
Total	**$ 5,056**	**$ 8,619**	**$ 10,194**	**$ 103**	**$ 23,972**

For the year ended December 31, 2022	Asia	Canada	U.S.	Other	Total
Contracts under the fair value method	$ 2,656	$ 3,370	$ 9,901	$ (96)	$ 15,831
Contracts under the full retrospective method	666	122	76	-	864
Other contracts	1,412	4,625	268	118	6,423
Total	$ 4,734	$ 8,117	$ 10,245	$ 22	$ 23,118

(d) Effect of new business recognized in the year

The following tables present components of new business for insurance contracts issued for the years presented.

As at December 31, 2023	Asia Non-Onerous	Asia Onerous	Canada Non-Onerous	Canada Onerous	U.S. Non-Onerous	U.S. Onerous	Total Non-Onerous	Total Onerous
New business insurance contracts								
Estimates of present value of cash outflows	**$ 16,209**	**$ 2,399**	**$ 3,478**	**$ 271**	**$ 2,524**	**$ 1,126**	**$ 22,211**	**$ 3,796**
Insurance acquisition cash flows	***3,011***	***322***	***608***	***68***	***676***	***233***	***4,295***	***623***
Claims and other insurance service expenses payable	***13,198***	***2,077***	***2,870***	***203***	***1,848***	***893***	***17,916***	***3,173***
Estimates of present value of cash inflows	**(18,765)**	**(2,330)**	**(3,823)**	**(286)**	**(2,953)**	**(1,145)**	**(25,541)**	**(3,761)**
Risk adjustment for non-financial risk	**679**	**89**	**115**	**41**	**168**	**88**	**962**	**218**
Contractual service margin	**1,877**	**-**	**230**	**-**	**261**	**-**	**2,368**	**-**
Amount included in insurance contract liabilities for the year	**$ -**	**$ 158**	**$ -**	**$ 26**	**$ -**	**$ 69**	**$ -**	**$ 253**

As at December 31, 2022	Asia Non-Onerous	Asia Onerous	Canada Non-Onerous	Canada Onerous	U.S. Non-Onerous	U.S. Onerous	Total Non-Onerous	Total Onerous
New business insurance contracts								
Estimates of present value of cash outflows	$ 8,470	$ 3,953	$ 3,604	$ 390	$ 1,845	$ 1,237	$ 13,919	$ 5,580
Insurance acquisition cash flows	*2,244*	*499*	*600*	*119*	*568*	*228*	*3,412*	*846*
Claims and other insurance service expenses payable	*6,226*	*3,454*	*3,004*	*271*	*1,277*	*1,009*	*10,507*	*4,734*
Estimates of present value of cash inflows	(10,759)	(3,772)	(3,901)	(431)	(2,289)	(1,227)	(16,949)	(5,430)
Risk adjustment for non-financial risk	704	153	107	92	221	119	1,032	364
Contractual service margin	1,585	-	190	-	223	-	1,998	-
Amount included in insurance contract liabilities for the year	$ -	$ 334	$ -	$ 51	$ -	$ 129	$ -	$ 514

The following tables present components of new business for reinsurance contracts held portfolios for the years presented.

As at December 31, 2023	**Asia**	**Canada**	**U.S.**	**Total**
New business reinsurance contracts				
Estimates of present value of cash outflows	**$ (916)**	**$ (331)**	**$ (750)**	**$ (1,997)**
Estimates of present value of cash inflows	**815**	**319**	**799**	**1,933**
Risk adjustment for non-financial risk	**170**	**76**	**153**	**399**
Contractual service margin	**(57)**	**(51)**	**(155)**	**(263)**
Amount included in reinsurance assets for the year	**$ 12**	**$ 13**	**$ 47**	**$ 72**

As at December 31, 2022	Asia	Canada	U.S.	Total
New business reinsurance contracts				
Estimates of present value of cash outflows	$ (519)	$ (291)	$ (7,084)	$ (7,894)
Estimates of present value of cash inflows	453	261	5,904	6,618
Risk adjustment for non-financial risk	125	77	515	717
Contractual service margin	(22)	(15)	747	710
Amount included in reinsurance assets for the year	$ 37	$ 32	$ 82	$ 151

(e) Expected recognition of contractual service margin

The following tables present expectations for the timing of recognition of CSM in income in future years.

As at December 31, 2023	Less than 1 year	1 to 5 years	5 to 10 years	10 to 20 years	More than 20 years	Total
Canada						
Insurance contracts issued	**$ 379**	**$ 1,213**	**$ 1,016**	**$ 1,084**	**$ 651**	**$ 4,343**
Reinsurance contracts held	**(36)**	**(83)**	**(52)**	**(46)**	**(65)**	**(282)**
	343	**1,130**	**964**	**1,038**	**586**	**4,061**
U.S.						
Insurance contracts issued	**388**	**1,235**	**968**	**823**	**288**	**3,702**
Reinsurance contracts held	**(50)**	**(139)**	**(35)**	**90**	**169**	**35**
	338	**1,096**	**933**	**913**	**457**	**3,737**
Asia						
Insurance contracts issued	**1,273**	**4,066**	**3,320**	**3,308**	**2,204**	**14,171**
Reinsurance contracts held	**(44)**	**(202)**	**(173)**	**(105)**	**(169)**	**(693)**
	1,229	**3,864**	**3,147**	**3,203**	**2,035**	**13,478**
Corporate						
Insurance contracts issued	**(8)**	**(28)**	**(28)**	**(34)**	**(14)**	**(112)**
Reinsurance contracts held	**10**	**51**	**53**	**19**	**4**	**137**
	2	**23**	**25**	**(15)**	**(10)**	**25**
Total	**$ 1,912**	**$ 6,113**	**$ 5,069**	**$ 5,139**	**$ 3,068**	**$ 21,301**

As at December 31, 2022	Less than 1 year	1 to 5 years	5 to 10 years	10 to 20 years	More than 20 years	Total
Canada						
Insurance contracts issued	$ 333	$ 1,088	$ 936	$ 1,015	$ 620	$ 3,992
Reinsurance contracts held	(36)	(100)	(69)	(62)	(48)	(315)
	297	988	867	953	572	3,677
U.S.						
Insurance contracts issued	541	1,770	1,468	1,375	547	5,701
Reinsurance contracts held	(189)	(586)	(433)	(296)	(62)	(1,566)
	352	1,184	1,035	1,079	485	4,135
Asia						
Insurance contracts issued	922	2,933	2,442	2,435	1,516	10,248
Reinsurance contracts held	(17)	(79)	(55)	5	11	(135)
	905	2,854	2,387	2,440	1,527	10,113
Corporate						
Insurance contracts issued	(8)	(27)	(23)	(24)	(10)	(92)
Reinsurance contracts held	12	40	35	38	19	144
	4	13	12	14	9	52
Total	$ 1,558	$ 5,039	$ 4,301	$ 4,486	$ 2,593	$ 17,977

(f) Investment income and insurance finance income and expenses

For the year ended December 31, 2023	Insurance contracts	Non-insurance[1]	Total
Investment return			
Investment related income	$ 13,036	$ 3,087	$ 16,123
Net gains (losses) on financial assets at FVTPL	2,176	508	2,684
Unrealized gains (losses) on FVOCI assets	11,212	1,014	12,226
Impairment loss on financial assets	(247)	(57)	(304)
Investment expenses	(540)	(757)	(1,297)
Interest on required surplus	521	(521)	-
Total investment return	26,158	3,274	29,432
Portion recognized in income (expenses)	15,830	2,219	18,049
Portion recognized in OCI	10,328	1,055	11,383
Insurance finance income (expenses) from insurance contracts issued and effect of movement in exchange rates			
Interest accreted to insurance contracts using locked-in rate	(8,214)	28	(8,186)
Due to changes in interest rates and other financial assumptions	(11,008)	21	(10,987)
Changes in fair value of underlying items of direct participation contracts	(7,384)	-	(7,384)
Effects of risk mitigation option	1,267	-	1,267
Net foreign exchange income (expenses)	(80)	-	(80)
Hedge accounting offset from insurance contracts issued	(41)	-	(41)
Reclassification of derivative OCI to IFIE – cash flow hedges	(3)	-	(3)
Reclassification of derivative income (loss) changes to IFIE – fair value hedge	185	-	185
Other	237	-	237
Total insurance finance income (expenses) from insurance contracts issued	(25,041)	49	(24,992)
Effect of movements in foreign exchange rates	(952)	-	(952)
Total insurance finance income (expenses) from insurance contracts issued and effect of movement in foreign exchange rates	(25,993)	49	(25,944)
Portion recognized in income (expenses), including effects of exchange rates	(13,930)	36	(13,894)
Portion recognized in OCI, including effects of exchange rates	(12,063)	13	(12,050)
Reinsurance finance income (expenses) from reinsurance contracts held and effect of movement in foreign exchange rates			
Interest accreted to insurance contracts using locked-in rate	241	(12)	229
Due to changes in interest rates and other financial assumptions	598	(28)	570
Changes in risk of non-performance of reinsurer	(15)	-	(15)
Other	(159)	-	(159)
Total reinsurance finance income (expenses) from reinsurance contracts held	665	(40)	625
Effect of movements in foreign exchange rates	(120)	-	(120)
Total reinsurance finance income (expenses) from reinsurance contracts held and effect of movement in foreign exchange rates	545	(40)	505
Portion recognized in income (expenses), including effects of foreign exchange rates	(719)	(15)	(734)
Portion recognized in OCI, including effects of exchange rates	1,264	(25)	1,239
Decrease (increase) in investment contract liabilities	(17)	(418)	(435)
Total net investment income (loss), insurance finance income (expenses) and reinsurance finance income (expenses)	693	2,865	3,558
Amounts recognized in income (expenses)	1,164	1,822	2,986
Amounts recognized in OCI	(471)	1,043	572

[1] Non-insurance includes consolidations and eliminations of transactions between operating segments.

For the year ended December 31, 2022	Insurance contracts	Non-insurance[1]	Total
Investment return			
Investment related income	$ 13,991	$ 2,039	$ 16,030
Net gains (losses) on financial assets at FVTPL	(14,017)	(284)	(14,301)
Unrealized gains (losses) on FVOCI assets	(46,900)	(8,437)	(55,337)
Impairment loss on financial assets	(59)	(18)	(77)
Investment expenses	(464)	(757)	(1,221)
Interest on required surplus	515	(515)	-
Total investment return	(46,934)	(7,972)	(54,906)
Portion recognized in income (expenses)	358	(3)	355
Portion recognized in OCI	(47,292)	(7,969)	(55,261)
Insurance finance income (expenses) from insurance contracts issued and effect of movement in exchange rates			
Interest accreted to insurance contracts using locked-in rate	(6,448)	14	(6,434)
Due to changes in interest rates and other financial assumptions	63,174	(272)	62,902
Changes in fair value of underlying items of direct participation contracts	9,417	-	9,417
Effects of risk mitigation option	2,827	-	2,827
Net foreign exchange income (expenses)	(95)	-	(95)
Hedge accounting offset from insurance contracts issued	-	-	-
Reclassification of derivative OCI to IFIE – cash flow hedges	-	-	-
Reclassification of derivative income (loss) changes to IFIE – fair value hedge	-	-	-
Other	218	(2)	216
Total insurance finance income (expenses) from insurance contracts issued	69,093	(260)	68,833
Effect of movements in foreign exchange rates	(1,665)	(9)	(1,674)
Total insurance finance income (expenses) from insurance contracts issued and effect of movement in foreign exchange rates	67,428	(269)	67,159
Portion recognized in income (expenses), including effects of exchange rates	(6,582)	(34)	(6,616)
Portion recognized in OCI, including effects of exchange rates	74,010	(235)	73,775
Reinsurance finance income (expenses) from reinsurance contracts held and effect of movement in foreign exchange rates			
Interest accreted to insurance contracts using locked-in rate	832	(8)	824
Due to changes in interest rates and other financial assumptions	(10,218)	67	(10,151)
Changes in risk of non-performance of reinsurer	96	-	96
Other	191	-	191
Total reinsurance finance income (expenses) from reinsurance contracts held	(9,099)	59	(9,040)
Effect of movements in foreign exchange rates	(16)	-	(16)
Total reinsurance finance income (expenses) from reinsurance contracts held and effect of movement in foreign exchange rates	(9,115)	59	(9,056)
Portion recognized in income (expenses), including effects of foreign exchange rates	322	(13)	309
Portion recognized in OCI, including effects of exchange rates	(9,437)	72	(9,365)
Decrease (increase) in investment contract liabilities	(56)	(343)	(399)
Total net investment income (loss), insurance finance income (expenses) and reinsurance finance income (expenses)	11,323	(8,525)	2,798
Amounts recognized in income (expenses)	(5,958)	(393)	(6,351)
Amounts recognized in OCI	17,281	(8,132)	9,149

[1] Non-insurance includes consolidations and eliminations of transactions between operating segments.

The following tables present Investment income and insurance finance income and expenses recognized in income or expenses or other comprehensive income, by reporting segments for the years ended December 31, 2023 and December 31, 2022.

For the year ended December 31, 2023	Insurance and reinsurance contracts Asia	Canada	U.S.	Corporate	Non-insurance[1]	Total
Total investment return						
Portion recognized in income (expenses)	**$ 7,095**	**$ 3,514**	**$ 5,193**	**$ 28**	**$ 2,219**	**$ 18,049**
Portion recognized in OCI	**4,675**	**2,454**	**3,197**	**2**	**1,055**	**11,383**
	11,770	**5,968**	**8,390**	**30**	**3,274**	**29,432**
Total insurance finance income (expenses) from insurance contracts issued and effect of movement in foreign exchange rates						
Portion recognized in income (expenses), including effects of exchange rates	**(6,436)**	**(3,315)**	**(4,868)**	**689**	**36**	**(13,894)**
Portion recognized in OCI, including effects of exchange rates	**(4,601)**	**(2,394)**	**(5,068)**	**-**	**13**	**(12,050)**
	(11,037)	**(5,709)**	**(9,936)**	**689**	**49**	**(25,944)**
Total reinsurance finance income (expenses) from reinsurance contracts held and effect of movement in foreign exchange rates						
Portion recognized in income (expenses), including effects of foreign exchange rates	**(105)**	**57**	**11**	**(682)**	**(15)**	**(734)**
Portion recognized in OCI, including effects of exchange rates	**117**	**33**	**1,114**	**-**	**(25)**	**1,239**
	12	**90**	**1,125**	**(682)**	**(40)**	**505**

[1] Non-insurance includes consolidations and eliminations of transactions between operating segments.

For the year ended December 31, 2022	Insurance and reinsurance contracts Asia	Canada	U.S.	Corporate	Non-insurance[1]	Total
Total investment return						
Portion recognized in income (expenses)	$ 1,422	$ (1,967)	$ 894	$ 9	$ (3)	$ 355
Portion recognized in OCI	(14,200)	(11,332)	(21,741)	(19)	(7,969)	(55,261)
	(12,778)	(13,299)	(20,847)	(10)	(7,972)	(54,906)
Total insurance finance income (expenses) from insurance contracts issued and effect of movement in foreign exchange rates						
Portion recognized in income (expenses), including effects of exchange rates	(1,654)	(219)	(4,867)	158	(34)	(6,616)
Portion recognized in OCI, including effects of exchange rates	14,532	14,731	44,748	(1)	(235)	73,775
	12,878	14,512	39,881	157	(269)	67,159
Total reinsurance finance income (expenses) from reinsurance contracts held and effect of movement in foreign exchange rates						
Portion recognized in income (expenses), including effects of foreign exchange rates	(63)	(102)	641	(154)	(13)	309
Portion recognized in OCI, including effects of exchange rates	(126)	(150)	(9,161)	-	72	(9,365)
	(189)	(252)	(8,520)	(154)	59	(9,056)

[1] Non-insurance includes consolidations and eliminations of transactions between operating segments.

(g) Significant judgements and estimates

(I) Fulfilment cash flows

Fulfilment cash flows have three major components:

- Estimate of future cash flows
- An adjustment to reflect the time value of money and the financial risk related to future cash flows if not included in the estimate of future cash flows
- A risk adjustment for non-financial risk

The determination of insurance fulfilment cash flows involves the use of estimates and assumptions. A comprehensive review of valuation assumptions and methods is performed annually. The review reduces the Company's exposure to uncertainty by ensuring assumptions for liability risks remain appropriate. This is accomplished by monitoring experience and updating assumptions which represent a best estimate of expected future experience, and margins that are appropriate

for the risks assumed. While the assumptions selected represent the Company's current best estimates and assessment of risk, the ongoing monitoring of experience and the changes in economic environment are likely to result in future changes to the actuarial assumptions, which could materially impact the insurance contract liabilities.

Method used to measure insurance & reinsurance contract fulfilment cash flows

The Company primarily uses deterministic projections using best estimate assumptions to determine the present value of future cash flows. For product features such as universal life minimum crediting rates guarantees, participating life zero dividend floor implicit guarantees and variable annuities guarantees, the Company developed a stochastic approach to capture the asymmetry of the risk.

Determination of assumptions used

For the deterministic projections, assumptions are made with respect to mortality, morbidity, rates of policy termination, operating expenses and certain taxes. Actual experience is monitored to ensure that assumptions remain appropriate and assumptions are changed as warranted. Assumptions are discussed in more detail in the following table.

Nature of factors and assumption methodology		**Risk management**
Mortality	Mortality relates to the occurrence of death. Mortality is a key assumption for life insurance and certain forms of annuities. Mortality assumptions are based on the Company's internal experience as well as past and emerging industry experience. Assumptions are differentiated by sex, underwriting class, policy type and geographic market. Assumptions are made for future mortality improvements.	The Company maintains underwriting standards to determine the insurability of applicants. Claim trends are monitored on an ongoing basis. Exposure to large claims is managed by establishing policy retention limits, which vary by market and geographic location. Policies in excess of the limits are reinsured with other companies. Mortality is monitored monthly and the overall 2023 experience was favourable (2022 – unfavourable) when compared to the Company's assumptions.
Morbidity	Morbidity relates to the occurrence of accidents and sickness for insured risks. Morbidity is a key assumption for long-term care insurance, disability insurance, critical illness and other forms of individual and group health benefits. Morbidity assumptions are based on the Company's internal experience as well as past and emerging industry experience and are established for each type of morbidity risk and geographic market. Assumptions are made for future morbidity improvements.	The Company maintains underwriting standards to determine the insurability of applicants. Claim trends are monitored on an ongoing basis. Exposure to large claims is managed by establishing policy retention limits, which vary by market and geographic location. Policies in excess of the limits are reinsured with other companies. Morbidity is also monitored monthly and the overall 2023 experience was favourable (2022 – favourable) when compared to the Company's assumptions.
Policy termination and premium persistency	Policies are terminated through lapses and surrenders, where lapses represent the termination of policies due to non-payment of premiums and surrenders represent the voluntary termination of policies by policyholders. Premium persistency represents the level of ongoing deposits on contracts where there is policyholder discretion as to the amount and timing of deposits. Policy termination and premium persistency assumptions are primarily based on the Company's recent experience adjusted for expected future conditions. Assumptions reflect differences by type of contract within each geographic market.	The Company seeks to design products that minimize financial exposure to lapse, surrender and premium persistency risk. The Company monitors lapse, surrender and persistency experience. In aggregate, 2023 policyholder termination and premium persistency experience was unfavourable (2022 – unfavourable) when compared to the Company's assumptions used in the computation of actuarial liabilities.
Directly attributable expenses	Directly attributable operating expense assumptions reflect the projected costs of maintaining and servicing in-force policies, including associated directly attributable overhead expenses. The directly attributable expenses are derived from internal cost studies projected into the future with an allowance for inflation. For some developing businesses, there is an expectation that unit costs will decline as these businesses grow. Directly attributable acquisitions expenses are derived from internal cost studies.	The Company prices its products to cover the expected costs of servicing and maintaining them. In addition, the Company monitors expenses monthly, including comparisons of actual expenses to expense levels allowed for in pricing and valuation. Maintenance expenses for 2023 were unfavourable (2022 – unfavourable) when compared to the Company's assumptions used in the computation of actuarial liabilities.

Tax	Taxes reflect assumptions for future premium taxes and other non-income related taxes.	The Company prices its products to cover the expected cost of taxes.
Policyholder dividends, experience rating refunds, and other adjustable policy elements	The best estimate projections for policyholder dividends and experience rating refunds, and other adjustable elements of policy benefits are determined to be consistent with management's expectation of how these elements will be managed should experience emerge consistently with the best estimate assumptions.	The Company monitors policy experience and adjusts policy benefits and other adjustable elements to reflect this experience. Policyholder dividends are reviewed annually for all businesses under a framework of Board-approved policyholder dividend policies.

The Company reviews actuarial methods and assumptions on an annual basis. If changes are made to non-economic assumptions, the impact based on locked-in economic assumptions would adjust the contractual service margin for general model and VFA contracts if there is any remaining contractual service margin for the group of policies where the change was made. This amount would then be recognized in income over the period of service provided. Changes could also impact net income and other comprehensive income to the extent that the contractual service margin has been depleted, or discount rates are different than the locked-in rates used to quantify changes to the contractual service margin.

(II) Determination of discretionary changes

The terms of some contracts measured under the GMM give the Company discretion over the cash flows to be paid to the policyholders, either in timing or amount. Changes in discretionary cash flows are regarded as relating to future service and accordingly adjust the CSM. The Company determines how to identify a change in discretionary cash flows by specifying the basis on which it expects to determine its commitment under the contract; for example, based on a fixed interest rate, or on returns that vary based on specified asset returns. This determination is specified at the inception of the contract.

(III) Discount rates

Insurance contract cash flows for non-participating business are discounted using risk-free yield curves adjusted by an illiquidity premium to reflect the liquidity characteristics of the liabilities. Cash flows that vary based on returns of underlying items are adjusted to reflect their variability under these adjusted yield curves. Each yield curve is interpolated between the spot rate at the last observable market data point and an ultimate spot rate which reflects the long-term real interest rate plus inflation expectations.

For participating business, insurance contract cash flows that vary based on the return of underlying items are discounted at rates reflecting that variability.

For insurance contracts with cash flows that vary with the return of underlying items and where the present value is measured by stochastic modelling, cash flows are both projected and discounted at scenario specific rates, calibrated on average to be the risk-free yield curves adjusted for liquidity.

The spot rates used for discounting liability cash flows are presented in the following table and include illiquidity premiums determined with reference to net asset spreads indicative of the liquidity characteristics of the liabilities by geography.

					December 31, 2023					
	Currency	**Liquidity category**	**Observable years**	**Ultimate year**	1 year	5 years	10 years	20 years	30 years	Ultimate
Canada	CAD	Illiquid	30	70	**5.17%**	**4.33%**	**4.92%**	**4.86%**	**4.80%**	**4.40%**
		More liquid	30	70	**5.14%**	**4.22%**	**4.69%**	**4.72%**	**4.69%**	**4.40%**
U.S.	USD	Illiquid	30	70	**5.38%**	**4.54%**	**5.37%**	**5.65%**	**5.27%**	**5.00%**
		More liquid	30	70	**5.32%**	**4.57%**	**5.25%**	**5.56%**	**5.18%**	**4.88%**
Japan	JPY	Mixed	30	70	**0.53%**	**0.77%**	**1.08%**	**1.75%**	**2.24%**	**1.60%**
Hong Kong	HKD	Illiquid	15	55	**4.20%**	**4.01%**	**4.98%**	**4.61%**	**4.19%**	**3.80%**

					December 31, 2022					
	Currency	**Liquidity category**	**Observable years**	**Ultimate year**	1 year	5 years	10 years	20 years	30 years	Ultimate
Canada	CAD	Illiquid	30	70	5.29%	4.81%	5.35%	5.35%	5.03%	4.40%
		More liquid	30	70	5.21%	4.63%	4.97%	5.02%	4.91%	4.40%
U.S.	USD	Illiquid	30	70	5.28%	4.87%	5.74%	5.86%	5.34%	5.00%
		More liquid	30	70	5.23%	4.88%	5.61%	5.76%	5.23%	4.88%
Japan	JPY	Mixed	30	70	0.72%	0.98%	0.91%	1.70%	2.22%	1.60%
Hong Kong	HKD	Illiquid	15	55	4.69%	4.95%	5.60%	4.99%	4.36%	3.80%

Amounts presented in income for policies where changes in assumptions that relate to financial risk do not have a substantial impact on amounts paid to policyholders reflect discount rates locked in beginning with the adoption of IFRS 17 or locked in at issue for later insurance contracts. These policies include term insurance, guaranteed whole life insurance, and health products including critical illness and long-term care. For policies where changes in assumptions to financial risk have a substantial impact on amounts paid to policyholders, discount rates are updated as future cash flows change due to changes in financial risk, so that the amount presented in income from future changes in financial variables is $nil. These policies include adjustable universal life contracts. Impacts from differences between current period rates and discount rates used to determine income are presented in other comprehensive income.

(IV) Risk adjustment and confidence level used to determine risk adjustment

Risk adjustment for non-financial risk represents the compensation the Company requires for bearing the uncertainty about the amount and timing of the cash flows that arises from non-financial risk as the Company fulfils insurance contracts. The risk adjustment process considers insurance, lapse and expense risks, includes both favourable and unfavourable outcomes, and reflects diversification benefits from the insurance contracts issued.

The Company estimates the risk adjustment using a margin approach. This approach applies a margin for adverse deviation, typically in terms of a percentage of best estimate assumptions, where future cash flows are uncertain. The resulting cash flows are discounted at rates consistent with the best estimate cash flows to arrive at the total risk adjustment. The ranges for these margins are set by the Company and reviewed periodically.

The risk adjustment for non-financial risk for insurance contracts correspond to a 90 – 95% confidence level for all segments.

(V) Investment component, Investment-return service and Investment-related service

The Company identifies the investment component, investment-return service (contract without direct participation features) and investment-related service (contract with direct participation features) of a contract as part of the product governance process.

Investment components are amounts that are to be paid to the policyholder under all circumstances. Investment components are excluded from insurance revenue and insurance service expenses.

Investment-return services and investment-related services are investment services rendered as part of an insurance contract and are part of the insurance contract services provided to the policyholder.

(VI) Relative weighting of the benefit provided by insurance coverage, investment-return service and investment-related service

The contractual service margin is released into income, when insurance contract services are provided, by using coverage units. Coverage units represent the quantity of service (insurance coverage, investment-return and investment-related services) provided and are determined by considering the benefit provided under the contract and its expected coverage duration. When the relative size of the investment-related service coverage or the investment-return service coverage unit is disproportionate compared to the insurance service coverage unit, or vice-versa, the Company must determine a relative weighting of the services to reflect the delivery of each of those services. The Company identifies the coverage units as part of the product governance process and did not identify contracts where such weighting was required.

(h) Composition of underlying items

The following table sets out the composition and fair value of the underlying items supporting the Company's liabilities for direct participation contracts as at the dates presented.

	2023			2022		
As at December 31,	Participating	Variable annuity	Unit linked	Participating	Variable annuity	Unit linked
Underlying assets						
Debt securities	**$ 44,682**	**$ -**	**$ -**	$ 39,894	$ -	$ -
Public equities	**14,442**	**-**	**-**	12,119	-	-
Mortgages	**4,449**	**-**	**-**	3,813	-	-
Private placements	**6,720**	**-**	**-**	5,666	-	-
Real estate	**3,907**	**-**	**-**	3,190	-	-
Other	**27,017**	**68,749**	**15,539**	26,009	69,033	13,476
Total	**$ 101,217**	**$ 68,749**	**$ 15,539**	$ 90,691	$ 69,033	$ 13,476

(i) Asset for insurance acquisition cash flow

The following table presents the expected future derecognition of asset for insurance acquisition cash flow as at the dates presented.

	2023				2022			
As at December 31,	Less than 1 year	1-5 years	More than 5 years	Total	Less than 1 year	1-5 years	More than 5 years	Total
Asia	**$ 59**	**$ 150**	**$ 62**	**$ 271**	$ 58	$ 150	$ 75	$ 283
Canada	**72**	**205**	**272**	**549**	73	200	249	522
Total	**$ 131**	**$ 355**	**$ 334**	**$ 820**	$ 131	$ 350	$ 324	$ 805

(j) Insurance and reinsurance contracts contractual obligations – maturity analysis and amounts payable on demand

The table below represents the maturities of the insurance contract and reinsurance contract held liabilities as at the dates presented.

As at December 31, 2023

Payments due by period	Less than 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	Over 5 years	Total
Insurance contract liabilities[(1)]	**$ 3,400**	**$ 5,546**	**$ 6,766**	**$ 8,849**	**$ 11,320**	**$ 1,074,764**	**$ 1,110,645**
Reinsurance contract held liabilities[(1)]	**332**	**460**	**492**	**592**	**475**	**6,097**	**8,448**

As at December 31, 2022

Payments due by period	Less than 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	Over 5 years	Total
Insurance contract liabilities[(1)]	$ 3,091	$ 4,976	$ 7,224	$ 9,212	$ 11,223	$ 996,460	$ 1,032,186
Reinsurance contract held liabilities[(1)]	235	237	250	243	337	5,320	6,622

(1) Insurance contract liabilities cash flows include estimates related to the timing and payment of death and disability claims, policy surrenders, policy maturities, annuity payments, minimum guarantees on segregated fund products, policyholder dividends, commissions and premium taxes offset by contractual future premiums on in-force contracts and exclude amounts from insurance contract liabilities for account of segregated fund holders. These estimated cash flows are based on the best estimate assumptions used in the determination of insurance contract liabilities. These amounts are undiscounted. Reinsurance contract held liabilities cash flows include estimates related to the timing and payment of future reinsurance premiums offset by recoveries on in-force reinsurance agreements. Due to the use of assumptions, actual cash flows may differ from these estimates. Cash flows include embedded derivatives measured separately at fair value.

The amounts from insurance contract liabilities that are payable on demand are set out below as at the dates presented.

	2023		2022	
As at December 31,	Amounts payable on demand	Carrying amount	Amounts payable on demand	Carrying amount
Asia	**$ 100,060**	**$ 129,117**	$ 95,777	$ 117,737
Canada	**28,264**	**56,887**	25,745	52,300
U.S.	**44,360**	**63,092**	45,394	63,374
Total	**$ 172,684**	**$ 249,096**	$ 166,916	$ 233,411

The amounts payable on demand represent the policyholders' cash and/or account values less applicable surrender fees as at the time of the reporting date. Segregated fund insurance liabilities for account of segregated fund holders are excluded from the amounts payable on demand and the carrying amount.

(k) Actuarial methods and assumptions

The Company performs a comprehensive review of actuarial methods and assumptions annually. The review is designed to reduce the Company's exposure to uncertainty by ensuring assumptions for liability risks remain appropriate. This is accomplished by monitoring experience and updating assumptions that represent a best estimate of expected future experience, and margins that are appropriate for the risks assumed. While the assumptions selected represent the Company's best estimates and assessment of risk, the ongoing monitoring of experience and changes in the economic environment are likely to result in future changes to the actuarial assumptions, which could materially impact the insurance contract liabilities. The changes implemented from the review are generally implemented in the third quarter of each year, though updates may be made outside the third quarter in certain circumstances.

2023 Review of Actuarial Methods and Assumptions

On a full year basis, the 2023 review of actuarial methods and assumptions resulted in a decrease in pre-tax fulfilment cash flows of $3,197. These changes resulted in an increase in pre-tax net income attributed to shareholder of $171 ($105 post-tax), an increase in pre-tax net income attributed to participating policyholders of $173 ($165 post-tax), an increase in CSM of $2,754, and an increase in pre-tax other comprehensive income of $99 ($73 post-tax).

In the third quarter of 2023, the completion of the 2023 annual review of actuarial methods and assumptions resulted in a decrease in pre-tax fulfilment cash flows of $347. These changes resulted in an increase in pre-tax net income attributed to shareholder of $27 (a decrease of $14 post-tax), an increase in pre-tax net income attributed to participating policyholders of $58 ($74 post-tax), an increase in CSM of $116, and an increase in pre-tax other comprehensive income of $146 ($110 post-tax).

In the fourth quarter of 2023, the Company also updated the actuarial methods and assumptions which decreased the overall level of the risk adjustment for non-financial risk. This change moves the risk adjustment to approximately the middle of the Company's existing 90 – 95% confidence level range. The risk adjustment would have exceeded the 95% confidence level in the fourth quarter without making the change. This change led to a decrease in pre-tax fulfilment cash flows of $2,850, an increase in pre-tax net income attributed to shareholder of $144 ($119 post-tax), an increase in pre-tax net income attributed to participating policyholders of $115 ($91 post-tax), an increase in CSM of $2,638, and a decrease in pre-tax other comprehensive income of $47 ($37 post-tax).

Since the beginning of 2020, some lines of business have seen impacts to mortality and policyholder behaviour driven by the COVID-19 pandemic. Given the long-term nature of the Company's assumptions, the Company's 2023 experience studies have excluded experience that was materially impacted by COVID-19 as this is not seen to be indicative of the levels of actual future claims or lapses.

Impact of changes in actuarial methods and assumptions on pre-tax fulfilment cash flows[1]

	For the three and nine months ended September 30, 2023	For the three months ended December 31, 2023	For the year ended December 31, 2023
Canada variable annuity product review	$ (133)	$ -	$ (133)
Mortality and morbidity updates	265	-	265
Lapse and policyholder behaviour updates	98	-	98
Methodology and other updates	(577)	(2,850)	(3,427)
Impact of changes in actuarial methods and assumptions, pre-tax	**$ (347)**	**$ (2,850)**	**$ (3,197)**

[1] Excludes the portion related to non-controlling interests of $103 for the three and nine months ended September 30, 2023, and $97 for the three months ended December 31, 2023, respectively.

Impact of changes in actuarial methods and assumptions on pre-tax net income attributed to shareholder, pre-tax net income attributed to participating policyholders, OCI and CSM[1]

	For the three and nine months ended September 30, 2023	For the three months ended December 31, 2023	For the year ended December 31, 2023
Portion recognized in net income (loss) attributed to:			
Participating policyholders	$ 58	$ 115	$ 173
Shareholder and other equity holders	27	144	171
	85	259	344
Portion recognized in OCI attributed to:			
Participating policyholders	-	(21)	(21)
Shareholder and other equity holders	146	(26)	120
	146	(47)	99
Portion recognized in CSM	116	2,638	2,754
Impact of changes in actuarial methods and assumptions, pre-tax	$ 347	$ 2,850	$ 3,197

[1] Excludes the portion related to non-controlling interests, of which $72 is related to CSM for the three and nine months ended September 30, 2023, and $87 is related to CSM for the three months ended December 31, 2023.

Canada variable annuity product review

The review of the Company's variable annuity products in Canada resulted in a decrease in pre-tax fulfilment cash flows of $133.

The decrease was driven by a reduction in investment management fees, partially offset by updates to product assumptions, including surrenders, incidence and utilization, to reflect emerging experience.

Mortality and morbidity updates

Mortality and morbidity updates resulted in an increase in pre-tax fulfilment cash flows of $265.

The increase was driven by a strengthening of incidence rates for certain products in Vietnam to align with emerging experience and updates to mortality assumptions in the Company's U.S. life insurance business to reflect industry trends, as well as emerging experience. This was partially offset by updates to morbidity assumptions for certain products in Japan to reflect actual experience.

Lapse and policyholder behaviour updates

Updates to lapses and policyholder behaviour assumptions resulted in an increase in pre-tax fulfilment cash flows of $98.

The increase was primarily driven by a detailed review of lapse assumptions for the Company's universal life level cost of insurance products in Canada, which resulted in a reduction to the lapse rates to align with emerging trends.

Methodology and other updates

Methodology and other updates resulted in a decrease in pre-tax fulfilment cash flows of $3,427.

In the third quarter of 2023, methodology and other updates resulted in a decrease in pre-tax fulfilment cash flows of $577. The decrease was driven by the impact of cost-of-guarantees for participating policyholders across all segments from annual updates related to parameters, dividend recalibration, and market movements during the year, as well as modelling refinements for certain products in Asia. This was partially offset by a modelling methodology update to project future premiums on the Company's U.S. life insurance business.

In the fourth quarter of 2023, methodology and other updates resulted in a decrease in pre-tax fulfilment cash flows of $2,850. The decrease was driven by a decrease in the overall level of the risk adjustment for non-financial risk. This change moves the risk adjustment to approximately the middle of the Company's existing 90 – 95% confidence levels.

Impact of changes in actuarial methods and assumptions on pre-tax fulfilment cash flows, net income attributed to shareholder, CSM and OCI by segment

For the three and nine months ended September 30, 2023

The impact of changes in actuarial methods and assumptions in Canada resulted in a decrease in pre-tax fulfilment cash flows of $159. The decrease was driven by updates to the Company's variable annuity product assumptions, as well as by updates to its valuation models for participating products, driven by the annual dividend recalibration, partially offset by a reduction in lapse rates on the Company's universal life level cost of insurance products to reflect emerging trends. These

changes resulted in an increase in pre-tax net income attributed to shareholder of $52 ($37 post-tax), an increase in CSM of $142, and an increase in pre-tax other comprehensive income of $2 ($1 post-tax).

The impact of changes in actuarial methods and assumptions in the U.S. resulted in an increase in pre-tax fulfilment cash flows of $270. The increase was related to the Company's life insurance business and primarily driven by a modelling methodology update to project future premiums, as well as updates to mortality assumptions. These changes resulted in an increase in pre-tax net income attributed to shareholder of $134 ($106 post-tax), a decrease in CSM of $600, and an increase in pre-tax other comprehensive income of $196 ($155 post-tax).

The impact of changes in actuarial methods and assumptions in Asia resulted in a decrease in pre-tax fulfilment cash flows of $457. The decrease largely relates to participating products, primarily driven by model refinements, dividend recalibration updates, as well as annual updates to reflect market movements during the year. This, and the updates to morbidity assumptions on certain products in Japan, were partially offset by updates to incidence rates on certain products in Vietnam. These changes resulted in a decrease in pre-tax net income attributed to shareholder of $159 ($157 post-tax), an increase in CSM of $574, and a decrease in pre-tax other comprehensive income of $53 ($47 post-tax).

The impact of changes in actuarial methods and assumptions in Corporate and Other (which includes the Company's Reinsurance businesses) resulted in a decrease in pre-tax fulfilment cash flows of $1. These changes resulted in no impacts to pre-tax net income attributable to shareholder or CSM, and an increase in pre-tax other comprehensive income of $1 ($1 post-tax).

For the three months ended December 31, 2023

The reduction in the risk adjustment level resulted in the following impacts by segment:

The impact of changes in actuarial methods and assumptions in Canada resulted in a decrease in pre-tax fulfilment cash flows of $246. These changes resulted in an increase in pre-tax net income attributed to shareholder of $4 ($3 post-tax), an increase in pre-tax net income attributed to policyholder of $40 ($29 post-tax), an increase in CSM of $213, and a decrease in pre-tax other comprehensive income of $11 ($8 post-tax).

The impact of changes in actuarial methods and assumptions in the U.S. resulted in a decrease in pre-tax fulfilment cash flows of $91. These changes resulted in an increase in pre-tax net income attributed to shareholder of $33 ($26 post-tax), an increase in CSM of $78, and a decrease in pre-tax other comprehensive income of $20 ($15 post-tax).

The impact of changes in actuarial methods and assumptions in Asia resulted in a decrease in pre-tax fulfilment cash flows of $2,513. These changes resulted in an increase in pre-tax net income attributed to shareholder of $107 ($90 post-tax), an increase in pre-tax net income attributed to policyholders of $75 ($62 post-tax), an increase in CSM of $2,348, and a decrease in pre-tax other comprehensive income of $17 ($14 post-tax).

2022 Review of Actuarial Methods and Assumptions

The completion of the 2022 annual review of actuarial methods and assumptions resulted in an increase in pre-tax fulfilment cash flows of $192. These changes resulted in an increase in pre-tax net income attributed to shareholder of $23 ($26 post-tax), a decrease in pre-tax net income attributed to participating policyholders of $26 ($18 post-tax), a decrease in CSM of $279, and an increase in pre-tax other comprehensive income of $90 ($73 post-tax).

Since the beginning of 2020, some lines of business have seen impacts to mortality and policyholder behaviour driven by the COVID-19 pandemic. Given the long-term nature of the Company's assumptions, the Company's 2022 experience studies have excluded experience that was materially impacted by COVID-19 as this is not seen to be indicative of the levels of actual future claims or lapses.

Impact of changes in actuarial methods and assumptions on pre-tax fulfilment cash flows[1]

For the year ended December 31, 2022		Total
Long-term care triennial review	$	118
Mortality and morbidity updates		83
Lapse and policyholder behaviour updates		234
Methodology and other updates		(243)
Impact of changes in actuarial methods and assumptions, pre-tax	$	192

[1] Excludes the portion related to non-controlling interests of $8.

Impact of changes in actuarial methods and assumptions on pre-tax net income attributed to shareholder, pre-tax net income attributed to participating policyholders, OCI and CSM(1)

For the year ended December 31, 2022		Total
Portion recognized in net income (loss) attributed to:		
Participating policyholders	$	(26)
Shareholder and other equity holders		23
		(3)
Portion recognized in OCI attributed to:		
Participating policyholders		-
Shareholder and other equity holders		90
		90
Portion recognized in CSM		(279)
Impact of changes in actuarial methods and assumptions, pre-tax	$	(192)

(1) Excludes the portion related to non-controlling interests, of which $nil is related to CSM.

Long-term care triennial review

U.S. Insurance completed a comprehensive long-term care ("LTC") experience study. The review included all aspects of claim assumptions, as well as the progress on future premium rate increases. The impact of the LTC review was an increase in pre-tax fulfilment cash flows of $118.

The experience study showed that claim costs established in the Company's last triennial review remain appropriate in aggregate for the Company's older blocks of business[1] supported by robust claims data on this mature block. Pre-tax fulfilment cash flows were increased for claim costs on the Company's newer block of business.[2] This was driven by lower active life mortality[3] supported by Company experience and a recent industry study, as well as higher utilization of benefits, which included the impact of reflecting higher inflation in the cost-of-care up to 2022. The Company also reviewed and updated incidence and claim termination assumptions which, on a net basis, provided a partial offset to the increase in pre-tax fulfilment cash flows on active life mortality and utilization. In addition, some policyholders are electing to reduce their benefits in lieu of paying increased premiums which resulted in a reduction in pre-tax fulfilment cash flows.

Experience continues to support the assumptions of both future morbidity and mortality improvement, resulting in no changes to these assumptions.

As of September 30, 2022, the Company had received actual premium increase approvals of $2.5 billion pre-tax (US$1.9 billion pre-tax) on a present value basis since the last triennial review in 2019. This aligns with the full amount assumed in the Company's pre-tax fulfilment cash flows at that time and demonstrates the Company's continued strong track record of securing premium rate increases.[4] In 2022, the review of future premium increases assumed in fulfilment cash flows resulted in a net $2.5 billion (US$1.9 billion) decrease in pre-tax fulfilment cash flows. This reflects expected future premium increases that are due to the Company's 2022 review of morbidity, mortality, and lapse assumptions, as well as outstanding amounts from prior state filings. Premium increases averaging approximately 30% will be sought on about one-half of the business, excluding the carryover of 2019 amounts requested. The Company's assumptions reflect the estimated timing and amount of state approved premium increases.

Mortality and morbidity updates

Mortality and morbidity updates resulted in an increase in pre-tax fulfilment cash flows of $83, driven by updates to morbidity assumptions in Vietnam to align with experience, partially offset by a detailed review of the mortality assumptions for the Company's Canada insurance business.

Lapse and policyholder behaviour updates

Updates to lapses and policyholder behaviour assumptions resulted in an increase in pre-tax fulfilment cash flows of $234.

The Company completed a detailed review of lapse assumptions for Singapore, and increased lapse rates to align with experience on the Company's index-linked products, which reduced projected future fee income to be received on these products.

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1 First generation policies issued prior to 2002.
2 Second generation policies with an average issue date of 2007 and Group policies with an average issue date of 2003.
3 The mortality rate of LTC policyholders who are currently not on claim.
4 Actual experience obtaining premium increases could be materially different than what the Company has assumed, resulting in further increases or decreases in insurance contract liabilities, which could be material.

The Company also increased lapse rates on Canada's term insurance products for policies approaching their renewal date, reflecting emerging experience in the Company's study.

Methodology and other updates

Other updates resulted in a decrease in pre-tax fulfilment cash flows of $243, which included updates to discount rates and policyholder dividends on participating products, as well as various other modelling and projection updates.

Impact of changes in actuarial methods and assumptions on pre-tax fulfilment cash flows, net income attributed to shareholder, CSM and OCI by segment

The impact of changes in actuarial methods and assumptions in Canada resulted in an increase in pre-tax fulfilment cash flows of $22. The increase was driven by updates to the lapse assumptions for certain term insurance products, largely offset by updates to discount rates and policyholder dividends on participating products, as well as updates to mortality assumptions for the Company's insurance business. These changes resulted in an increase in pre-tax net income attributed to shareholder of $64 ($47 post-tax), an increase in CSM of $43, and a decrease in pre-tax other comprehensive income of $96 ($71 post-tax).

The impact of changes in actuarial methods and assumptions in the U.S. resulted in an increase in pre-tax fulfilment cash flows of $108, driven by the triennial review of long-term care. These changes resulted in a decrease in pre-tax net income attributed to shareholder of $16 ($12 post-tax), a decrease in CSM of $202, and an increase in pre-tax other comprehensive income of $110 ($86 post-tax).

The impact of changes in actuarial methods and assumptions in Asia resulted in an increase in pre-tax fulfilment cash flows of $62. The increase was driven by updates to lapse assumptions in Singapore and morbidity updates in Vietnam, partially offset by various other modelling and projection updates. These changes resulted in a decrease in pre-tax net income attributed to shareholder of $25 ($9 post-tax), a decrease in CSM of $120, and an increase in pre-tax other comprehensive income of $76 ($58 post-tax).

(I) Reinsurance transactions

Agreement with Global Atlantic Financial Group

On December 11, 2023, the Company announced it entered into an agreement with Global Atlantic Financial Group to reinsure policies from the U.S. LTC, U.S. structured settlements, and Japan whole life legacy blocks. Under the terms of the transaction, the Company will retain responsibility for the administration of the policies with no intended impact to policyholders. The transaction will be structured as coinsurance of an 80% quota share for the LTC block and 100% quota shares for the other blocks.

The transaction represents a combined $13 billion of insurance and investment contract net liabilities as at September 30, 2023 and is expected to close by the end of February 2024.

Agreements with Venerable Holdings, Inc.

On November 15, 2021 and October 3, 2022, the Company, through its subsidiary John Hancock Life Insurance Company (U.S.A) ("JHUSA"), entered into reinsurance agreements with Venerable Holdings, Inc. to reinsure a block of legacy U.S. variable annuity ("VA") policies. Under the terms of the transaction, the Company will retain responsibility for the maintenance of the policies with no intended impact to VA policyholders. The transaction was structured as coinsurance for the general fund liabilities and modified coinsurance for the segregated fund liabilities.

The transaction closed on February 1, 2022 and October 3, 2022, respectively, resulting in a cumulative pre-tax decrease to the contractual service margin of $905, recognized in 2022.

Note 8 Investment Contract Liabilities

Investment contract liabilities are contractual financial obligations of the Company that do not contain significant insurance risk. Those contracts are subsequently measured either at FVTPL or at amortized cost.

(a) Investment contract liabilities designated as FVTPL

Investment contract liabilities measured at fair value are designated as FVTPL on initial recognition and include certain investment savings and pension products. The Company does not have any investment contract liabilities that are mandatorily measured at FVTPL.

The following table presents the movement in investment contract liabilities measured at fair value.

For the years ended December 31,		2023		2022
Balance, excluding those for account of segregated fund holders, January 1	**$**	**798**	$	825
New contracts		**48**		79
Changes in market conditions		**47**		(56)
Redemptions, surrenders and maturities		**(122)**		(99)
Impact of changes in foreign exchange rates		**(22)**		49
Balance, excluding those for account of segregated fund holders, December 31		**749**		798
Investment contract liabilities for account of segregated fund holders		**263,401**		238,346
Balance, December 31	**$**	**264,150**	$	239,144

The amount due to contract holders is contractually determined based on specified assets and therefore, the fair value of the liabilities are subject to asset specific performance risk but not the Company's own credit risk, being fully collateralized. The Company has determined that any residual credit risk is insignificant and has not had any significant impact on the fair value of the liabilities.

(b) Investment contract liabilities measured at amortized cost

Investment contract liabilities measured at amortized cost primarily include fixed annuity products that provide guaranteed income payments for a contractually determined period and are not contingent on survivorship.

The following table presents carrying and fair values of investment contract liabilities measured at amortized cost, by reporting segment.

	2023				2022			
As at December 31,		Amortized cost, gross of reinsurance ceded[1]		Fair value		Amortized cost, gross of reinsurance ceded[1]		Fair value
Asia	**$**	**451**	**$**	**438**	$	636	$	607
Canada		**7,642**		**7,534**		6,699		6,474
U.S.		**1,381**		**1,440**		1,535		1,571
GWAM		**1,593**		**1,582**		411		382
Investment contract liabilities	**$**	**11,067**	**$**	**10,994**	$	9,281	$	9,034

(1) As at December 31, 2023, investment contract liabilities with carrying value and fair value of $27 and $27, respectively (2022 – $38 and $38, respectively), were reinsured by the Company. The net carrying value and fair value of investment contract liabilities were $11,040 and $10,967 (2022 – $9,243 and $8,996, respectively).

The changes in investment contract liabilities measured at amortized cost resulted from the following business activities.

For the years ended December 31,		2023		2022
Balance, January 1	**$**	**9,281**	$	9,239
Policy deposits		**3,365**		1,634
Interest		**218**		150
Withdrawals		**(1,629)**		(1,882)
Fees		**1**		-
Impact of changes in foreign exchange rates		**(108)**		81
Other		**(61)**		59
Balance, December 31	**$**	**11,067**	$	9,281

Carrying value reflects amortization at rates that exactly discount the projected cash flows to the net carrying amount of the liabilities at the dates of issue.

Fair value is determined by projecting cash flows according to the contract terms and discounting the cash flows at current market rates adjusted for the Company's own credit standing. As at December 31, 2023 and 2022, fair value of all investment contract liabilities was determined using Level 2 valuation techniques.

(c) Investment contracts contractual obligations

As at December 31, 2023 and 2022, the Company's contractual obligations and commitments relating to these investment contracts are as follows.

Investment contract liabilities[1]

As at December 31, Payments due by period	Less than 1 year	1 to 3 years	3 to 5 years	Over 5 years	Total
2023	**$ 268,537**	**$ 2,978**	**$ 1,408**	**$ 3,488**	**$ 276,411**
2022	241,301	2,749	1,789	3,932	249,771

(1) Due to the nature of the products, the timing of net cash flows may be before contract maturity. Cash flows are undiscounted.

Note 9 Risk Management

Manulife offers insurance, wealth and asset management products and other financial services, which subjects the Company to a broad range of risks. Manulife manages these risks within an enterprise-wide risk management framework. Manulife's goal in managing risk is to strategically optimize risk taking and risk management to support long-term revenue, earnings and capital growth. Manulife seeks to achieve this by capitalizing on business opportunities and strategies with appropriate risk/return profiles; ensuring sufficient management expertise is in place to effectively execute strategies, and to identify, understand and manage underlying inherent risks; ensuring strategies and activities align with its corporate and ethical standards and operational capabilities; pursuing opportunities and risks that enhance diversification; and in making all risk taking decisions with analyses of inherent risks, risk controls and mitigations, and risk/return trade-off.

(a) Market risk

Market risk is the risk of loss resulting from market price volatility, interest rate change, credit and swap spread changes, and adverse foreign currency exchange rate movements. Market price volatility primarily relates to changes in prices of publicly traded equities and alternative long-duration assets. The profitability of the Company's insurance and annuity products, as well as the fees the Company earns in its investment management business, are subject to market risk.

Please read below for details on factors that could impact the level of market risk and the strategies used to manage this risk:

Market risk management strategy

Market risk management strategy is governed by the Global Asset Liability Committee which oversees the overall market and liquidity risk program. The Company's overall strategy to manage its market risks incorporates several component strategies, each targeted to manage one or more of the market risks arising from the Company's businesses. At an enterprise level, these strategies are designed to manage the Company's aggregate exposures to market risks against limits associated with earnings and capital volatility.

The following table outlines the Company's key market risks and identifies the risk management strategies which contribute to managing these risks.

Risk Management Strategy	**Key Market Risk**				
	Public Equity Risk	**Interest Rate and Spread Risk**	**ALDA Risk**	**Foreign Currency Exchange Risk**	**Liquidity Risk**
Product design and pricing	✓	✓	✓	✓	✓
Variable annuity guarantee dynamic hedging	✓	✓		✓	✓
Macro equity risk hedging	✓			✓	✓
Asset liability management	✓	✓	✓	✓	✓
Foreign currency exchange management				✓	✓
Liquidity risk management					✓

Product design and pricing strategy

The Company's policies, standards, and guidelines with respect to product design and pricing are designed with the objective of aligning its product offerings with its risk taking philosophy and risk appetite, and in particular, ensuring that incremental risk generated from new sales aligns with its strategic risk objectives and risk limits. The specific design features of Manulife's product offerings, including level of benefit guarantees, policyholder options, fund offerings and availability restrictions as well as its associated investment strategies, help to mitigate the level of underlying risk. Manulife regularly reviews and modifies key features within its product offerings, including premiums and fee charges with a goal of meeting profit targets and staying within risk limits. Certain of the Company's general fund adjustable benefit products have minimum rate guarantees. The rate guarantees for any particular policy are set at the time the policy is issued and governed by

insurance regulation in each jurisdiction where the products are sold. The contractual provisions allow crediting rates to be re-set at pre-established intervals subject to the established minimum crediting rate guarantees. The Company may partially mitigate the interest rate exposure by setting new rates on new business and by adjusting rates on in-force business where permitted. In addition, the Company partially mitigates this interest rate risk through its asset liability management process, product design elements, and crediting rate strategies. All material new product, reinsurance and underwriting initiatives must be reviewed and approved by the Chief Risk Officer or key individuals within risk management functions.

Hedging strategies for variable annuity and other equity risks

The Company's exposure to movement in public equity market values primarily arises from insurance contract liabilities related to variable annuity guarantees and general fund public equity investments.

Dynamic hedging is the primary hedging strategy for variable annuity market risks. Dynamic hedging is employed for new variable annuity guarantees business when written or as soon as practical thereafter.

Manulife seeks to manage public equity risk arising from unhedged exposures in its insurance contract liabilities through the macro equity risk hedging strategy. The Company seeks to manage interest rate risk arising from variable annuity business not dynamically hedged through its asset liability management strategy.

Variable annuity dynamic hedging strategy

The variable annuity dynamic hedging strategy is designed to hedge the sensitivity of variable annuity guarantee insurance contract liabilities to fund performance (both public equity and bond funds) and interest rate movements. The objective of the variable annuity dynamic hedging strategy is to offset, as closely as possible, the change in the economic value of guarantees with the profit and loss from the hedge asset portfolio.

The Company's variable annuity hedging program uses a variety of exchange-traded and over-the-counter ("OTC") derivative contracts to offset the change in value of variable annuity guarantees. The main derivative instruments used are equity index futures, government bond futures, currency futures, interest rate swaps, total return swaps, equity options and interest rate swaptions. The hedge instruments' positions against insurance contract liabilities are continuously monitored as market conditions change. As necessary, the hedge asset positions will be dynamically rebalanced in order to stay within established limits. The Company may also utilize other derivatives with the objective to improve hedge effectiveness opportunistically.

The Company's variable annuity guarantee dynamic hedging strategy is not designed to completely offset the sensitivity of insurance contract liabilities to all risks associated with the guarantees embedded in these products. The profit (loss) on the hedge instruments will not completely offset the underlying losses (gains) related to the guarantee liabilities hedged because:

- Policyholder behaviour and mortality experience are not hedged;
- Risk adjustment related to cost of guarantees in the insurance contract liabilities is largely hedged;
- A portion of interest rate risk is not hedged;
- Credit spreads may widen and actions might not be taken to adjust accordingly;
- Fund performance on a small portion of the underlying funds is not hedged due to lack of availability of effective exchange-traded hedge instruments;
- Performance of the underlying funds hedged may differ from the performance of the corresponding hedge instruments;
- Correlations between interest rates and equity markets could lead to unfavourable material impacts;
- Unfavourable hedge rebalancing costs can be incurred during periods of high volatility from equity markets, bond markets and/or interest rates. The impact is magnified when these impacts occur concurrently; and
- Not all other risks are hedged.

Macro equity risk hedging strategy

The objective of the macro equity risk hedging program is to maintain the Company's overall earnings sensitivity to public equity market movements within the Board approved risk appetite limits. The macro equity risk hedging program is designed to hedge earnings sensitivity due to movements in public equity markets arising from all sources (outside of dynamically hedged exposures). Sources of equity market sensitivity addressed by the macro equity risk hedging program include:

- Residual equity and currency exposure from variable annuity guarantees not dynamically hedged;

- General fund equity holdings backing guaranteed, adjustable liabilities and variable universal life; and
- Host contract fees related to variable annuity guarantees are not dynamically hedged.

Asset liability management strategy

Manulife's asset liability management strategy is designed to help ensure that the market risks embedded in its assets and liabilities held in the Company's general fund are effectively managed and that risk exposures arising from these assets and liabilities are maintained within risk limits. The embedded market risks include risks related to the level and movement of interest rates and credit and swap spreads, public equity market performance, ALDA performance and foreign currency exchange rate movements.

General fund product liabilities are categorized into groups with similar characteristics in order to support them with a specific asset strategy. The Company seeks to align the asset strategy for each group to the premium and benefit patterns, policyholder options and guarantees, and crediting rate strategies of the products they support. The strategies are set using portfolio analysis techniques intended to optimize returns, subject to considerations related to regulatory and economic capital requirements, and risk tolerances. They are designed to achieve broad diversification across asset classes and individual investment risks while being suitably aligned with the liabilities they support. The strategies encompass asset mix, quality rating, term profile, liquidity, currency and industry concentration targets.

Foreign exchange risk management strategy

Manulife's policy is to generally match the currency of its assets with the currency of the liabilities they support. Where assets and liabilities are not currency matched, the Company seeks to hedge this exposure where appropriate to stabilize its earnings and capital positions and remain within its enterprise foreign exchange risk limits.

Liquidity risk management strategy

Global liquidity management policies and procedures are designed to provide adequate liquidity to cover cash and collateral obligations as they come due, and to sustain and grow operations in both normal and stressed conditions. They consider legal, regulatory, tax, operational or economic impediments to inter-entity funding. The asset mix of the Company's balance sheet takes into account the need to hold adequate unencumbered and appropriate liquid assets to satisfy the requirements arising under stressed scenarios and to allow Manulife's liquidity ratios to remain strong. Manulife manages liquidity centrally and closely monitors the liquidity positions of its principal subsidiaries.

Manulife seeks to mitigate liquidity risk by diversifying its business across different products, markets, geographical regions and policyholders. The Company designs insurance products to encourage policyholders to maintain their policies in-force, to help generate a diversified and stable flow of recurring premiums. The Company designs the policyholder termination features with the goal of mitigating the financial exposure and liquidity risk related to unexpected policyholder terminations. The Company establishes and implements investment strategies intended to match the term profile of the assets to the liabilities they support, taking into account the potential for unexpected policyholder terminations and resulting liquidity needs. Liquid assets represent a large portion of the Company's total assets. Manulife aims to reduce liquidity risk in the Company's businesses by diversifying its funding sources and appropriately managing the term structure of its funding. The Company forecasts and monitors daily operating liquidity and cash movements in various individual entities and operations as well as centrally, aiming to ensure liquidity is available and cash is employed optimally.

The Company also maintains centralized cash pools and access to other sources of liquidity and contingent liquidity such as repurchase funding agreements. Manulife's centralized cash pools consist of cash or near-cash, high quality short-term investments that are continually monitored for their credit quality and market liquidity.

Manulife has established a variety of contingent liquidity sources. These include, among others, a $500 committed unsecured revolving credit facility with certain Canadian chartered banks available for MFC, and a US$500 committed unsecured revolving credit facility with certain U.S. banks available to MFC and certain of its U.S. subsidiaries. There were no outstanding borrowings under these facilities as of December 31, 2023 (2022 – $nil). In addition, JHUSA is a member of the Federal Home Loan Bank of Indianapolis ("FHLBI"), which enables the Company to obtain loans from FHLBI as an alternative source of liquidity that is collateralizable by qualifying mortgage loans, mortgage-backed securities and U.S. Treasury and Agency securities. As of December 31, 2023, JHUSA had an estimated maximum borrowing capacity of US$4.3 billion (2022 – US$3.8 billion) based on regulatory limitations with an outstanding balance of US$500 (2022 – US$500), under the FHLBI facility.

The following table outlines the maturity of the Company's significant financial liabilities.

Maturity of financial liabilities[1]

As at December 31, 2023	Less than 1 year	1 to 3 years	3 to 5 years	Over 5 years	Total
Capital instruments	$ **594**	$ **-**	$ **-**	$ **647**	$ **1,241**
Derivatives	**1,596**	**1,982**	**717**	**7,427**	**11,722**
Deposits from Bank clients[2]	**16,814**	**2,963**	**1,839**	**-**	**21,616**
Lease liabilities	**100**	**133**	**68**	**49**	**350**

(1) The amounts shown above are net of the related unamortized deferred issue costs.
(2) Carrying value and fair value of deposits from Bank clients as at December 31, 2023 was $21,616 and $21,518, respectively (2022 – $22,507 and $22,271 respectively). Fair value is determined by discounting contractual cash flows, using market interest rates currently offered for deposits with similar terms and conditions. All deposits from Bank clients were categorized in Level 2 of the fair value hierarchy (2022 – Level 2).

Through the normal course of business, pledging of assets is required to comply with jurisdictional regulatory and other requirements including collateral pledged to partially mitigate derivative counterparty credit risk, assets pledged to exchanges as initial margin and assets held as collateral for repurchase funding agreements. Total unencumbered assets were $470.4 billion as at December 31, 2023 (2022 – $477.7 billion).

(b) Market risk sensitivities and market risk exposure measures

Variable annuity and segregated fund guarantees

Guarantees on variable annuity products and segregated funds may include one or more of death, maturity, income and withdrawal guarantees. Variable annuity and segregated fund guarantees are contingent and only payable upon the occurrence of the relevant event, if fund values at that time are below guarantee values. Depending on future equity market levels, liabilities on current in-force business would be due primarily in the period from 2023 to 2043.

Manulife seeks to mitigate a portion of the risks embedded in its retained (i.e., net of reinsurance) variable annuity and segregated fund guarantee business through the combination of dynamic and macro hedging strategies (see "Publicly traded equity performance risk sensitivities and exposure measures" below).

The table below shows selected information regarding the Company's variable annuity and segregated fund investment-related guarantees gross and net of reinsurance.

Variable annuity and segregated fund guarantees, net of reinsurance

	2023			2022		
As at December 31,	Guarantee value[1]	Fund value	Net amount at risk[1],[2],[3]	Guarantee value[1]	Fund value	Net amount at risk[1],[2],[3]
Guaranteed minimum income benefit	$ **3,864**	$ **2,735**	$ **1,156**	$ 4,357	$ 2,723	$ 1,639
Guaranteed minimum withdrawal benefit	**34,833**	**33,198**	**4,093**	38,319	34,203	5,734
Guaranteed minimum accumulation benefit	**18,996**	**19,025**	**116**	20,035	19,945	221
Gross living benefits[4]	**57,693**	**54,958**	**5,365**	62,711	56,871	7,594
Gross death benefits[5]	**9,133**	**17,279**	**975**	10,465	15,779	2,156
Total gross of reinsurance	**66,826**	**72,237**	**6,340**	73,176	72,650	9,750
Living benefits reinsured	**24,208**	**23,146**	**3,395**	26,999	23,691	4,860
Death benefits reinsured	**3,400**	**2,576**	**482**	3,923	2,636	1,061
Total reinsured	**27,608**	**25,722**	**3,877**	30,922	26,327	5,921
Total, net of reinsurance	$ **39,218**	$ **46,515**	$ **2,463**	$ 42,254	$ 46,323	$ 3,829

(1) Guarantee Value and Net Amount at Risk in respect of guaranteed minimum withdrawal business in Canada and the U.S. reflect the time value of money of these claims.
(2) Amount at risk (in-the-money amount) is the excess of guarantee values over fund values on all policies where the guarantee value exceeds the fund value. For guaranteed minimum death benefit, the amount at risk is defined as the current guaranteed minimum death benefit in excess of the current account balance and assumes that all claims are immediately payable. In practice, guaranteed death benefits are contingent and only payable upon the eventual death of policyholders if fund values remain below guarantee values. For guaranteed minimum withdrawal benefit, the amount at risk assumes that the benefit is paid as a lifetime annuity commencing at the earliest contractual income start age. These benefits are also contingent and only payable at scheduled maturity/income start dates in the future, if the policyholders are still living and have not terminated their policies and fund values remain below guarantee values. For all guarantees, the amount at risk is floored at zero at the single contract level.
(3) The amount at risk net of reinsurance at December 31, 2023 was $2,463 (2022 – $3,829) of which: US$391 (2022 – US$737) was on the Company's U.S. business, $1,559 (2022 – $2,154) was on the Company's Canadian business, US$140 (2022 – US$275) was on the Company's Japan business and US$155 (2022 – US$224) was related to Asia (other than Japan) and the Company's run-off reinsurance business.
(4) Where a policy includes both living and death benefits, the guarantee in excess of the living benefit is included in the death benefit category as outlined in footnote 5.
(5) Death benefits include standalone guarantees and guarantees in excess of living benefit guarantees where both death and living benefits are provided on a policy.

Investment categories for variable contracts with guarantees

Variable contracts with guarantees, including variable annuities and variable life, are invested, at the policyholder's discretion subject to contract limitations, in various fund types within the segregated fund accounts and other investments. The account balances by investment category are set out below.

As at December 31, Investment category	2023	2022
Equity funds	**$ 45,593**	$ 42,506
Balanced funds	**35,801**	36,290
Bond funds	**8,906**	9,336
Money market funds	**1,559**	1,924
Other fixed interest rate investments	**1,907**	2,029
Total	**$ 93,766**	$ 92,085

Caution related to sensitivities

In the sections that follow, the Company provides sensitivities and risk exposure measures for certain risks. These include sensitivities due to specific changes in market prices and interest rate levels projected using internal models as at a specific date, and are measured relative to a starting level reflecting the Company's assets and liabilities at that date. The risk exposures measure the impact of changing one factor at a time and assume that all other factors remain unchanged. Actual results can differ significantly from these estimates for a variety of reasons including the interaction among these factors when more than one changes; changes in liabilities from updates to non-economic assumptions, changes in business mix, effective tax rates and other market factors; and the general limitations of the Company's 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 below. Given the nature of these calculations, the Company cannot provide assurance that the actual impact on CSM, net income attributed to shareholder, other comprehensive income attributed to shareholder, and total comprehensive income attributed to shareholder will be as indicated.

Publicly traded equity performance risk sensitivities and exposure measures

The tables below include the potential impacts from an immediate 10%, 20% and 30% change in market values of publicly traded equities on CSM, net income attributed to shareholder, other comprehensive income attributed to shareholder, and total comprehensive income attributed to shareholder. The potential impact is shown after taking into account the impact of the change in markets on the hedge assets. While the Company cannot reliably estimate the amount of the change in dynamically hedged variable annuity guarantee liabilities that will not be offset by the change in the dynamic hedge assets, the Company makes certain assumptions for the purposes of estimating the impact on net income attributed to shareholder.

This estimate assumes that the performance of the dynamic hedging program would not completely offset the gain/loss from the dynamically hedged variable annuity guarantee liabilities. It assumes that the hedge assets are based on the actual position at the period end, and that equity hedges in the dynamic program offset 95% of the hedged variable annuity liability movement that occurs as a result of market changes.

It is also important to note that these estimates are illustrative, and that the dynamic and macro hedging programs may underperform these estimates, particularly during periods of high realized volatility and/or periods where both interest rates and equity market movements are unfavourable. The adoption of IFRS 17 did not change the method or assumptions used for deriving sensitivity information.

Potential immediate impact on net income attributed to shareholder arising from changes to public equity returns[1]

	Net income attributed to shareholder					
As at December 31, 2023	-30%	-20%	-10%	+10%	+20%	+30%
Underlying sensitivity						
Variable annuity guarantees[2]	**$ (2,370)**	**$ (1,460)**	**$ (670)**	**$ 550**	**$ 1,010**	**$ 1,390**
General fund equity investments[3]	**(1,170)**	**(770)**	**(390)**	**380**	**760**	**1,140**
Total underlying sensitivity before hedging	**(3,540)**	**(2,230)**	**(1,060)**	**930**	**1,770**	**2,530**
Impact of macro and dynamic hedge assets[4]	**880**	**530**	**240**	**(190)**	**(340)**	**(460)**
Net potential impact on net income attributed to shareholder after impact of hedging and before impact of reinsurance	**(2,660)**	**(1,700)**	**(820)**	**740**	**1,430**	**2,070**
Impact of reinsurance	**1,470**	**900**	**420**	**(350)**	**(650)**	**(910)**
Net potential impact on net income attributed to shareholder after impact of hedging and reinsurance	**$ (1,190)**	**$ (800)**	**$ (400)**	**$ 390**	**$ 780**	**$ 1,160**

	Net income attributed to shareholder					
As at December 31, 2022	-30%	-20%	-10%	+10%	+20%	+30%
Underlying sensitivity						
Variable annuity guarantees[2]	$ (2,110)	$ (1,310)	$ (610)	$ 530	$ 980	$ 1,360
General fund equity investments[3]	(1,450)	(920)	(420)	400	780	1,170
Total underlying sensitivity before hedging	(3,560)	(2,230)	(1,030)	930	1,760	2,530
Impact of macro and dynamic hedge assets[4]	930	570	260	(220)	(400)	(540)
Net potential impact on net income attributed to shareholder after impact of hedging and before impact of reinsurance	(2,630)	(1,660)	(770)	710	1,360	1,990
Impact of reinsurance	1,170	740	350	(310)	(580)	(810)
Net potential impact on net income attributed to shareholder after impact of hedging and reinsurance	$ (1,460)	$ (920)	$ (420)	$ 400	$ 780	$ 1,180

(1) See “Caution related to sensitivities” above.

(2) For variable annuity contracts measured under VFA the impact of financial risk and changes in interest rates adjusts CSM, unless the risk mitigation option applies. The Company has elected to apply risk mitigation and therefore a portion of the impact is reported in net income attributed to shareholder instead of adjusting the CSM. If the CSM for a group of variable annuity contracts is exhausted the full impact is reported in net income attributed to shareholder.

(3) This impact for general fund equity investments includes general fund investments supporting the Company’s insurance contract liabilities, investment in seed money investments (in segregated and mutual funds made by Global WAM segment) and the impact on insurance contract liabilities related to the projected future fee income on variable universal life and other unit linked products. The impact does not include any potential impact on public equity weightings. The participating policy funds are largely self-supporting and generate no material impact on net income attributed to shareholder as a result of changes in equity markets.

(4) Includes the impact of assumed rebalancing of equity hedges in the macro and dynamic hedging program. The impact of dynamic hedge represents the impact of equity hedges offsetting 95% of the dynamically hedged variable annuity liability movement that occurs as a result of market changes, but does not include any impact in respect of other sources of hedge accounting ineffectiveness (e.g., fund tracking, realized volatility and equity, interest rate correlations different from expected among other factors).

Potential immediate impact on contractual service margin, other comprehensive income to shareholder and total comprehensive income to shareholder[1],[2],[3]

As at December 31, 2023		-30%		-20%		-10%		+10%		+20%		+30%
Variable annuity guarantees reported in CSM	$	**(3,810)**	$	**(2,370)**	$	**(1,100)**	$	**940**	$	**1,760**	$	**2,470**
Impact of risk mitigation - hedging[4]		**1,150**		**700**		**310**		**(250)**		**(450)**		**(600)**
Impact of risk mitigation - reinsurance[4]		**1,850**		**1,140**		**530**		**(450)**		**(830)**		**(1,150)**
VA net of risk mitigation		**(810)**		**(530)**		**(260)**		**240**		**480**		**720**
General fund equity		**(940)**		**(610)**		**(300)**		**290**		**590**		**870**
Contractual service margin (pre-tax)	$	**(1,750)**	$	**(1,140)**	$	**(560)**	$	**530**	$	**1,070**	$	**1,590**
Other comprehensive income attributed to shareholder (post-tax)[5]	$	**(730)**	$	**(490)**	$	**(240)**	$	**230**	$	**460**	$	**680**
Total comprehensive income attributed to shareholder (post-tax)	$	**(1,920)**	$	**(1,290)**	$	**(640)**	$	**620**	$	**1,240**	$	**1,840**

As at December 31, 2022		-30%		-20%		-10%		+10%		+20%		+30%
Variable annuity guarantees reported in CSM	$	(3,410)	$	(2,140)	$	(1,010)	$	890	$	1,670	$	2,360
Impact of risk mitigation - hedging[4]		1,200		740		340		(280)		(510)		(690)
Impact of risk mitigation - reinsurance[4]		1,480		930		440		(390)		(730)		(1,030)
VA net of risk mitigation		(730)		(470)		(230)		220		430		640
General fund equity		(520)		(370)		(210)		240		490		730
Contractual service margin (pre-tax)	$	(1,250)	$	(840)	$	(440)	$	460	$	920	$	1,370
Other comprehensive income attributed to shareholder (post-tax)[5]	$	(620)	$	(410)	$	(210)	$	210	$	400	$	600
Total comprehensive income attributed to shareholder (post-tax)	$	(2,080)	$	(1,330)	$	(630)	$	610	$	1,180	$	1,780

[1] See "Caution related to sensitivities" above.
[2] This estimate assumes that the performance of the dynamic hedging program would not completely offset the gain/loss from the dynamically hedged variable annuity guarantee liabilities. It assumes that the hedge assets are based on the actual position at the period end, and that equity hedges in the dynamic program offset 95% of the hedged variable annuity liability movement that occur as a result of market changes.
[3] OSFI rules for segregated fund guarantees reflect full capital impacts of shocks over 20 quarters within a prescribed range. As such, the deterioration in equity markets could lead to further increases in capital requirements after the initial shock.
[4] For variable annuity contracts measured under VFA the impact of financial risk and changes in interest rates adjusts CSM, unless the risk mitigation option applies. The Company has elected to apply risk mitigation and therefore a portion of the impact is reported in net income attributed to shareholder instead of adjusting the CSM. If the CSM for a group of variable annuity contracts is exhausted the full impact is reported in net income attributed to shareholder.
[5] The impact of financial risk and changes to interest rates for variable annuity contracts is not expected to generate sensitivity in Other Comprehensive Income.

Interest rate and spread risk sensitivities and exposure measures

As at December 31, 2023, the Company estimated the sensitivity of net income attributed to shareholder to a 50 basis point parallel decline in interest rates to be a benefit of $100, and to a 50 basis point parallel increase in interest rates to be a charge of $100.

The table below shows the potential impacts from a 50 basis point parallel move in interest rates on CSM, net income attributed to shareholder, other comprehensive income attributed to shareholder, and total comprehensive income attributed to shareholder. This includes a change in current government, swap and corporate rates for all maturities across all markets with no change in credit spreads between government, swap and corporate rates. Also shown separately are the potential impacts from a 50 basis point parallel move in corporate spreads and a 20 basis point parallel move in swap spreads. The impacts reflect the net impact of movements in asset values in liability and surplus segments and movements in the present value of cash flows for insurance contracts including those with cash flows that vary with the returns of underlying items where the present value is measured by stochastic modelling. The method used for deriving sensitivity information and significant assumptions made did not change from the previous period.

The disclosed interest rate sensitivities reflect the accounting designations of the Company's financial assets and corresponding insurance contract liabilities. In most cases these assets and liabilities are designated as FVOCI and as a result, impacts from changes to interest rates are largely in other comprehensive income. There are also changes in interest rates that impact the CSM for VFA contracts that relate to amounts that are not passed through to policyholders. In addition, changes in interest rates impact net income as it relates to derivatives not in hedge accounting relationships and on VFA contracts where the CSM has been exhausted.

The disclosed interest rate sensitivities assume no hedge accounting ineffectiveness, as the Company's hedge accounting programs are optimized for parallel movements in interest rates, leading to immaterial net income impacts under these shocks. However, the actual hedge accounting ineffectiveness is sensitive to non-parallel interest rate movements and will depend on the shape and magnitude of the interest rate movements which could lead to variations in the impact to net income attributed to shareholder.

The Company's sensitivities vary across all regions in which it operates, and the impacts of yield curve changes will vary depending upon the geography where the change occurs. Furthermore, the impacts from non-parallel movements may be materially different from the estimated impacts of parallel movements.

The interest rate and spread risk sensitivities are determined in isolation of each other and therefore do not reflect the combined impact of changes in government rates and credit spreads between government, swap and corporate rates occurring simultaneously. As a result, the impact of the summation of each individual sensitivity may be materially different from the impact of sensitivities to simultaneous changes in interest rate and spread risk.

The potential impacts also do not take into account other potential effects of changes in interest rate levels, for example, CSM at recognition on the sale of new business or lower interest earned on future fixed income asset purchases.

The impacts do not reflect any potential effect of changing interest rates on the value of the Company's ALDA. Rising interest rates could negatively impact the value of the Company's ALDA. More information on ALDA can be found below under "Alternative long-duration asset performance risk sensitivities and exposure measures".

Potential impacts on contractual service margin, net income attributed to shareholder, other comprehensive income attributed to shareholder, and total comprehensive income attributed to shareholder of an immediate parallel change in interest rates, corporate spreads or swap spreads relative to current rates(1),(2),(3),(4)

As at December 31, 2023	Interest rates		Corporate spreads		Swap spreads	
(post-tax except CSM)	-50bp	+50bp	-50bp	+50bp	-20bp	+20bp
CSM	**$ -**	**$ (100)**	**$ -**	**$ (100)**	**$ -**	**$ -**
Net income attributed to shareholder	**100**	**(100)**	**-**	**-**	**100**	**(100)**
Other comprehensive income attributed to shareholder	**(300)**	**300**	**(200)**	**300**	**(100)**	**100**
Total comprehensive income attributed to shareholder	**(200)**	**200**	**(200)**	**300**	**-**	**-**

As at December 31, 2022	Interest rates		Corporate spreads		Swap spreads	
(post-tax except CSM)	-50bp	+50bp	-50bp	+50bp	-20bp	+20bp
CSM	$ (100)	$ -	$ (100)	$ -	$ -	$ -
Net income attributed to shareholder	1,700	(1,500)	-	-	-	-
Other comprehensive income attributed to shareholder	(1,900)	1,600	-	-	-	-
Total comprehensive income attributed to shareholder	(200)	100	-	-	-	-

(1) See "Caution related to sensitivities" above.
(2) Estimates include changes to the net actuarial gains/losses with respect to the Company's pension obligations as a result of changes in interest rates.
(3) Includes guaranteed insurance and annuity products, including variable annuity contracts as well as adjustable benefit products where benefits are generally adjusted as interest rates and investment returns change, a portion of which have minimum credited rate guarantees. For adjustable benefit products subject to minimum rate guarantees, the sensitivities are based on the assumption that credited rates will be floored at the minimum.
(4) The Company adopted IFRS 9 hedge accounting prospectively from January 1, 2023, as such the sensitivity results for 2023 and 2022 are based on different accounting basis in which 2023 includes the impacts of hedge accounting and 2022 does not.

Alternative long-duration asset performance risk sensitivities and exposure measures

The following table shows the potential impact on CSM, net income attributed to shareholder, other comprehensive income attributed to shareholder, and total comprehensive income attributed to shareholder resulting from an immediate 10% change in market values of ALDA. The method used for deriving sensitivity information and significant assumptions made did not change from the previous period.

ALDA includes commercial real estate, timber and farmland real estate, infrastructure, and private equities, some of which relate to energy.[1]

The impacts do not reflect any future potential changes to non-fixed income return volatility. Refer to "Publicly traded equity performance risk sensitivities and exposure measures" above for more details.

[1] Energy includes legacy oil and gas equity interests related to upstream and midstream assets that are in runoff, and Energy Transition private equity interests in areas supportive of the transition to lower carbon forms of energy, such as wind, solar, batteries and magnets.

Potential immediate impacts on contractual service margin, net income attributed to shareholder, other comprehensive income attributed to shareholder, and total comprehensive income attributed to shareholder from changes in ALDA market values[1]

As at	**December 31, 2023**		December 31, 2022	
(post-tax except CSM)	-10%	+10%	-10%	+10%
CSM excluding NCI	**$ (100)**	**$ 100**	$ (100)	$ 100
Net income attributed to shareholder	**(2,400)**	**2,400**	(2,500)	2,500
Other comprehensive income attributed to shareholder	**(200)**	**200**	(100)	100
Total comprehensive income attributed to shareholder	**(2,600)**	**2,600**	(2,600)	2,600

(1) See "Caution related to sensitivities" above.

Foreign exchange risk sensitivities and exposure measures

The Company generally matches the currency of its assets with the currency of the insurance and investment contract liabilities they support, with the objective of mitigating risk of loss arising from foreign currency exchange rate changes. As at December 31, 2023, the Company did not have a material unmatched currency exposure.

Liquidity risk exposure strategy

Manulife manages liquidity levels of the consolidated group and key subsidiaries against established thresholds. These thresholds are based on liquidity stress scenarios over varying time horizons.

Increased use of derivatives for hedging purposes has necessitated greater emphasis on measurement and management of contingent liquidity risk related to these instruments, in particular the movement of "over-the-counter" derivatives to central clearing in the U.S. and Japan places an emphasis on cash as the primary source of liquidity as opposed to security holdings. The market value of the Company's derivative portfolio is therefore regularly stress tested to assess the potential collateral and cash settlement requirements under various market conditions.

(c) Credit risk

Credit risk is the risk of loss due to inability or unwillingness of a borrower, or counterparty, to fulfill its payment obligations. Worsening regional and global economic conditions, segment or industry sector challenges, or company specific factors could result in defaults or downgrades and could lead to increased provisions or impairments related to the Company's general fund invested assets.

The Company's exposure to credit risk is managed through risk management policies and procedures which include a defined credit evaluation and adjudication process, delegated credit approval authorities and established exposure limits by borrower, corporate connection, credit rating, industry and geographic region. The Company measures derivative counterparty exposure as net potential credit exposure, which takes into consideration fair values of all transactions with each counterparty, net of any collateral held, and an allowance to reflect future potential exposure. Reinsurance counterparty exposure is measured reflecting the level of ceded liabilities.

The Company also ensures where warranted, that mortgages, private placements and loans to Bank clients are secured by collateral, the nature of which depends on the credit risk of the counterparty.

Credit risk associated with derivative counterparties is discussed in note 9 (f) and credit risk associated with reinsurance counterparties is discussed in note 9 (k).

(l) Credit quality

The following table presents financial instruments subject to credit exposure, without considering any collateral held or other credit enhancements, and other significant credit risk exposures from loan commitments, with allowances, presenting separately Stage 1, Stage 2, and Stage 3 credit risk profiles. For each asset type presented in the table, amortized cost and FVOCI financial instruments are presented together. Amortized cost financial instruments are shown gross of the allowance for credit losses, which is shown separately. FVOCI financial instruments are shown at fair value with the allowance for credit losses shown separately.

As at December 31, 2023	Stage 1	Stage 2	Stage 3	Total
Debt securities				
Investment grade	$ 198,935	$ 2,252	$ -	$ 201,187
Non-investment grade	5,367	596	-	5,963
Default	-	-	-	-
Total	204,302	2,848	-	207,150
Allowance for credit losses on assets measured at amortized cost	-	1	-	1
Net of allowance	204,302	2,847	-	207,149
Allowance for credit losses on assets measured at FVOCI	283	54	6	343
Private placements				
Investment grade	37,722	1,644	-	39,366
Non-investment grade	5,210	295	81	5,586
Total	42,932	1,939	81	44,952
Allowance for credit losses on assets measured at amortized cost	-	-	-	-
Net of allowance	42,932	1,939	81	44,952
Allowance for credit losses on assets measured at FVOCI	126	108	83	317
Commercial mortgages				
AAA	279	-	-	279
AA	6,815	-	-	6,815
A	14,259	134	-	14,393
BBB	5,513	984	-	6,497
BB	10	532	-	542
B and lower	145	71	107	323
Total	27,021	1,721	107	28,849
Allowance for credit losses on assets measured at amortized cost	1	2	-	3
Net of allowance	27,020	1,719	107	28,846
Allowance for credit losses on assets measured at FVOCI	40	42	143	225
Residential mortgages				
Performing	20,898	1,570	-	22,468
Non-performing	-	-	60	60
Total	20,898	1,570	60	22,528
Allowance for credit losses on assets measured at amortized cost	4	2	2	8
Net of allowance	20,894	1,568	58	22,520
Allowance for credit losses on assets measured at FVOCI	-	-	-	-
Loans to Bank clients				
Performing	2,387	44	-	2,431
Non-performing	-	-	8	8
Total	2,387	44	8	2,439
Allowance for credit losses on assets measured at amortized cost	2	-	1	3
Net of allowance	2,385	44	7	2,436
Allowance for credit losses on assets measured at FVOCI	-	-	-	-
Other invested assets				
Investment grade	3,791	-	-	3,791
Below investment grade	360	-	-	360
Default	-	-	-	-
Total	4,151	-	-	4,151
Allowance for credit losses on assets measured at amortized cost	1	-	-	1
Net of allowance	4,150	-	-	4,150
Allowance for credit losses on assets measured at FVOCI	16	-	-	16
Loan commitments				
Allowance for credit losses	9	1	2	12
Net of allowance, total	$ 301,683	$ 8,117	$ 253	$ 310,053

(II) Allowance for credit losses

The following table provides details on the allowance for credit losses by stage as at and for the year ended December 31, 2023 under IFRS 9.

As at December 31, 2023	Stage 1	Stage 2	Stage 3	Total
Balance, beginning of year	**$ 511**	**$ 141**	**$ 72**	**$ 724**
Net re-measurement due to transfers	**4**	**6**	**(10)**	**-**
Transfer to stage 1	***12***	***(11)***	***(1)***	**-**
Transfer to stage 2	***(6)***	***28***	***(22)***	**-**
Transfer to stage 3	***(2)***	***(11)***	***13***	**-**
Net originations, purchases and disposals	**45**	**8**	**(23)**	**30**
Repayments	**-**	**-**	**-**	**-**
Changes to risk, parameters, and models	**(71)**	**48**	**233**	**210**
Foreign exchange and other adjustments	**(7)**	**7**	**(35)**	**(35)**
Balance, end of year	**$ 482**	**$ 210**	**$ 237**	**$ 929**

The following table presents past due but not impaired and impaired financial assets as at December 31, 2022 under IAS 39.

	Past due but not impaired			
As at December 31, 2022	Less than 90 days	90 days and greater	Total	Total impaired
Debt securities[1],[2]				
FVTPL	$ 2,059	$ 71	$ 2,130	$ 9
AFS	922	-	922	-
Private placements[1]	317	152	469	229
Mortgages and loans to Bank clients	103	-	103	74
Other financial assets	36	34	70	1
Total	$ 3,437	$ 257	$ 3,694	$ 313

(1) Payments of $12 on $3,297 of financial assets past due less than 90 days were delayed.
(2) Payments of $4 on $224 of financial assets past due greater than 90 days were delayed.

(III) Significant judgements and estimates

The following table shows certain key macroeconomic variables used to estimate the ECL allowances by market. For the base case, upside and downside scenarios, the projections are provided for the next 12 months and then for the remaining forecast period, which represents a medium-term view.

		Base case scenario		Upside scenario		Downside scenario 1		Downside scenario 2	
As at December 31, 2023	Current quarter	Next 12 months	Ensuing 4 years	Next 12 months	Ensuing 4 years	Next 12 months	Ensuing 4 years	Next 12 months	Ensuing 4 years
Canada									
Gross Domestic Product (GDP), in U.S. $ billions	**$ 1,448**	**1.6%**	**2.0%**	**3.6%**	**2.3%**	**(2.1%)**	**2.2%**	**(4.1%)**	**2.1%**
Unemployment rate	**5.8%**	**6.0%**	**5.8%**	**5.3%**	**4.9%**	**7.9%**	**7.7%**	**9.2%**	**9.3%**
NYMEX Light Sweet Crude Oil (in U.S. dollars, per barrel)	**$ 85.7**	**82.8**	**71.4**	**85.3**	**71.7**	**68.0**	**64.8**	**58.9**	**58.6**
U.S.									
Gross Domestic Product (GDP), in U.S. $ billions	**$ 22,531**	**1.3%**	**2.3%**	**3.6%**	**2.4%**	**(2.5%)**	**2.6%**	**(4.2%)**	**2.5%**
Unemployment rate	**3.9%**	**3.9%**	**4.0%**	**3.2%**	**3.3%**	**6.5%**	**5.8%**	**6.9%**	**7.6%**
7-10 Year BBB U.S. Corporate Index	**6.6%**	**6.5%**	**6.0%**	**6.2%**	**6.1%**	**6.0%**	**5.4%**	**6.6%**	**5.3%**
Japan									
Gross Domestic Product (GDP), in JPY billions	**¥ 559,492**	**0.4%**	**0.8%**	**2.5%**	**1.0%**	**(4.6%)**	**1.1%**	**(8.3%)**	**1.7%**
Unemployment rate	**2.7%**	**2.7%**	**2.4%**	**2.6%**	**2.2%**	**3.2%**	**3.1%**	**3.3%**	**3.7%**
Hong Kong									
Unemployment rate	**2.8%**	**2.9%**	**3.2%**	**2.6%**	**2.8%**	**4.0%**	**4.0%**	**4.4%**	**4.8%**
Hang Seng Index	**19,316**	**20.9%**	**5.1%**	**35.4%**	**4.7%**	**(13.6%)**	**11.3%**	**(34.1%)**	**14.8%**
China									
Gross Domestic Product (GDP), in CNY billions	**$ 108,251**	**6.0%**	**4.3%**	**9.5%**	**4.4%**	**(1.2%)**	**4.6%**	**(4.7%)**	**3.9%**
FTSE Xinhua A200 Index	**9,852**	**7.3%**	**5.0%**	**26.6%**	**3.0%**	**(31.4%)**	**11.9%**	**(42.0%)**	**13.4%**

(IV) Sensitivity to changes in economic assumptions

The following table shows the ECL allowance resulting from all four macroeconomic scenarios (including the more heavily weighted best estimate baseline scenario, one upside and two downside scenarios) weighted by probability of occurrence and shows the ECL allowance resulting from only the baseline scenario.

As at		December 31, 2023
Probability-weighted ECLs	$	929
Base ECLs	$	659
Difference - in amount	$	270
Difference - in percentage		29.08%

(d) Securities lending, repurchase and reverse repurchase transactions

The Company engages in securities lending to generate fee income. Collateral exceeding the market value of the loaned securities is retained by the Company until the underlying security has been returned to the Company. The market value of the loaned securities is monitored daily and additional collateral is obtained or refunded as the market value of the underlying loaned securities fluctuates. As at December 31, 2023, the Company had loaned securities (which are included in invested assets) with a market value of $626 (2022 – $723). The Company holds collateral with a current market value that exceeds the value of securities lent in all cases.

The Company engages in reverse repurchase transactions to generate fee income to take possession of securities to cover short positions in similar instruments and to meet short-term funding requirements. As at December 31, 2023 the Company had engaged in reverse repurchase transactions of $466 (2022 – $895) which are recorded as short-term receivables. In addition, the Company had engaged in repurchase transactions of $202 as at December 31, 2023 (2022 – $895) which are recorded as payables.

(e) Credit default swaps

The Company replicates exposure to specific issuers by selling credit protection via credit default swaps ("CDS") to complement its cash debt securities investing. The Company does not write CDS protection more than its government bond holdings. A CDS is a derivative instrument representing an agreement between two parties to exchange the credit risk of a single specified entity or an index based on the credit risk of a group of entities (all commonly referred to as the "reference entity" or a portfolio of "reference entities"), in return for a periodic premium. CDS contracts typically have a five-year term.

The following table presents details of the credit default swap protection sold by type of contract and external agency rating for the underlying reference security.

As at December 31, 2023		Notional amount[(1)]		Fair value	Weighted average maturity (in years)[(2)]
Single name CDS[(3),(4)] – Corporate debt					
AA	$	23	$	1	4
A		94		2	3
BBB		14		-	1
Total single name CDS	$	131	$	3	3
Total CDS protection sold	$	131	$	3	3

As at December 31, 2022		Notional amount[(1)]		Fair value	Weighted average maturity (in years)[(2)]
Single name CDS[(3),(4)] – Corporate debt					
AA	$	-	$	-	-
A		133		4	4
BBB		26		-	1
Total single name CDS	$	159	$	4	4
Total CDS protection sold	$	159	$	4	4

(1) Notional amounts represent the maximum future payments the Company would have to pay its counterparties assuming a default of the underlying credit and zero recovery on the underlying issuer obligations.
(2) The weighted average maturity of the CDS is weighted based on notional amounts.
(3) Ratings are based on S&P where available followed by Moody's, DBRS, and Fitch. If no rating is available from a rating agency, an internally developed rating is used.
(4) The Company held no purchased credit protection as at December 31, 2023 and December 31, 2022.

(f) Derivatives

The Company's point-in-time exposure to losses related to credit risk of a derivative counterparty is limited to the amount of any net gains that may have accrued with the particular counterparty. Gross derivative counterparty exposure is measured as the total fair value (including accrued interest) of all outstanding contracts in a gain position excluding any offsetting contracts in a loss position and the impact of collateral on hand. The Company limits the risk of credit losses from derivative counterparties by: using investment grade counterparties, entering into master netting arrangements which permit the offsetting of contracts in a loss position in the case of a counterparty default and entering into Credit Support Annex agreements whereby collateral must be provided when the exposure exceeds a certain threshold.

All contracts are held with or guaranteed by investment grade counterparties, the majority of whom are rated A- or higher. As at December 31, 2023, the percentage of the Company's derivative exposure with counterparties rated AA- or higher was 32 per cent (2022 – 36 per cent). As at December 31, 2023, the largest single counterparty exposure, without taking into consideration the impact of master netting agreements or the benefit of collateral held, was $1,357 (2022 – $1,582). The net exposure to this counterparty, after taking into consideration master netting agreements and the fair value of collateral held, was $nil (2022 – $nil).

(g) Offsetting financial assets and financial liabilities

Certain derivatives, securities lent and repurchase agreements have conditional offset rights. The Company does not offset these financial instruments in the Consolidated Statements of Financial Position, as the rights of offset are conditional.

In the case of derivatives, collateral is collected from and pledged to counterparties and clearing houses to manage credit risk exposure in accordance with Credit Support Annexes to swap agreements and clearing agreements. Under master netting agreements, the Company has a right of offset in the event of default, insolvency, bankruptcy or other early termination.

In the case of reverse repurchase and repurchase transactions, additional collateral may be collected from or pledged to counterparties to manage credit exposure according to bilateral reverse repurchase or repurchase agreements. In the event of default by a reverse purchase transaction counterparty, the Company is entitled to liquidate the collateral held to offset against the same counterparty's obligation.

The following table presents the effect of conditional master netting and similar arrangements. Similar arrangements may include global master repurchase agreements, global master securities lending agreements, and any related rights to financial collateral pledged or received.

		Related amounts not set off in the Consolidated Statements of Financial Position			
As at December 31, 2023	Gross amounts of financial instruments[1]	Amounts subject to an enforceable master netting arrangement or similar agreements	Financial and cash collateral pledged (received)[2]	Net amounts including financing entity[3]	Net amounts excluding financing entity
Financial assets					
Derivative assets	**$ 9,209**	**$ (6,551)**	**$ (2,374)**	**$ 284**	**$ 154**
Securities lending	**626**	**-**	**(626)**	**-**	**-**
Reverse repurchase agreements	**466**	**(202)**	**(264)**	**-**	**-**
Total financial assets	**$ 10,301**	**$ (6,753)**	**$ (3,264)**	**$ 284**	**$ 154**
Financial liabilities					
Derivative liabilities	**$ (12,635)**	**$ 6,551**	**$ 5,958**	**$ (126)**	**$ (57)**
Repurchase agreements	**(202)**	**202**	**-**	**-**	**-**
Total financial liabilities	**$ (12,837)**	**$ 6,753**	**$ 5,958**	**$ (126)**	**$ (57)**

		Related amounts not set off in the Consolidated Statements of Financial Position			
As at December 31, 2022	Gross amounts of financial instruments[1]	Amounts subject to an enforceable master netting arrangement or similar agreements	Financial and cash collateral pledged (received)[2]	Net amounts including financing entity[3]	Net amounts excluding financing entity
Financial assets					
Derivative assets	$ 9,123	$ (7,221)	$ (1,687)	$ 215	$ 215
Securities lending	723	-	(723)	-	-
Reverse repurchase agreements	895	(779)	(116)	-	-
Total financial assets	$ 10,741	$ (8,000)	$ (2,526)	$ 215	$ 215
Financial liabilities					
Derivative liabilities	$ (15,230)	$ 7,221	$ 7,834	$ (175)	$ (103)
Repurchase agreements	(895)	779	116	-	-
Total financial liabilities	$ (16,125)	$ 8,000	$ 7,950	$ (175)	$ (103)

(1) Financial assets and liabilities include accrued interest of $500 and $913 respectively (2022 – $489 and $864 respectively).

(2) Financial and cash collateral exclude over-collateralization. As at December 31, 2023, the Company was over-collateralized on OTC derivative assets, OTC derivative liabilities, securities lending and reverse repurchase agreements and repurchase agreements in the amounts of $424, $1,420, $20 and $nil respectively (2022 – $507, $1,528, $63 and $nil respectively). As at December 31, 2023, collateral pledged (received) does not include collateral-in-transit on OTC instruments or initial margin on exchange traded contracts or cleared contracts.

(3) Includes derivative contracts entered between the Company and its unconsolidated financing entity. The Company does not exchange collateral on derivative contracts entered with this entity. Refer to note 17.

The Company also has certain credit linked note assets and variable surplus note liabilities which have unconditional offsetting rights. Under the netting agreements, the Company has rights of offset including in the event of the Company's default, insolvency, or bankruptcy. These financial instruments are offset in the Consolidated Statements of Financial Position.

A credit linked note is a debt instrument the term of which, in this case, is linked to a variable surplus note. A surplus note is a subordinated debt obligation that often qualifies as surplus (the U.S. statutory equivalent of equity) by some U.S. state insurance regulators. Interest payments on surplus notes are made after all other contractual payments are made. The following table presents the effect of unconditional netting.

As at December 31, 2023	Gross amounts of financial instruments	Amounts subject to an enforceable netting arrangement	Net amounts of financial instruments
Credit linked note[1]	**$ 1,276**	**$ (1,276)**	**$ -**
Variable surplus note	**(1,276)**	**1,276**	**-**

As at December 31, 2022	Gross amounts of financial instruments	Amounts subject to an enforceable netting arrangement	Net amounts of financial instruments
Credit linked note[1]	$ 1,242	$ (1,242)	$ -
Variable surplus note	(1,242)	1,242	-

(1) As at December 31, 2023 and 2022, the Company had no fixed surplus notes outstanding. Refer to note 18 (g).

(h) Risk concentrations

The Company defines enterprise-wide investment portfolio level targets and limits to ensure that portfolios are diversified across asset classes and individual investment risks. The Company monitors actual investment positions and risk exposures for concentration risk and reports its findings to the Executive Risk Committee and the Risk Committee of the Board of Directors.

As at December 31,	**2023**	2022
Debt securities and private placements rated as investment grade BBB or higher[1]	**95%**	96%
Government debt securities as a per cent of total debt securities	**38%**	36%
Government private placements as a per cent of total private placements	**10%**	10%
Highest exposure to a single non-government debt security and private placement issuer	**$ 1,131**	$ 1,006
Largest single issuer as a per cent of the total equity portfolio	**2%**	2%
Income producing commercial office properties (2023 – 37% of real estate, 2022 – 41%)	**$ 4,829**	$ 5,486
Largest concentration of mortgages and real estate[2] – Ontario Canada (2023 – 29%, 2022 – 27%)	**$ 19,003**	$ 18,343

(1) Investment grade debt securities and private placements include 38% rated A, 17% rated AA and 15% rated AAA (2022 – 39%, 17% and 14%) investments based on external ratings where available.
(2) Mortgages and real estate investments are diversified geographically and by property type.

The following table presents debt securities and private placements portfolio by sector and industry.

	2023		2022	
As at December 31,	Carrying value	% of total	Carrying value	% of total
Government and agency	**$ 84,739**	**33**	$ 77,236	31
Utilities	**45,952**	**18**	46,315	18
Financial	**39,069**	**15**	38,808	15
Consumer	**31,181**	**12**	31,556	13
Energy	**15,782**	**6**	16,314	7
Industrial	**24,209**	**9**	23,823	9
Other	**16,823**	**7**	16,909	7
Total	**$ 257,755**	**100**	$ 250,961	100

(i) Insurance risk

Insurance risk is the risk of loss due to actual experience for mortality and morbidity claims, policyholder behaviour and expenses emerging differently than assumed when a product was designed and priced. A variety of assumptions are made related to these experience factors, for reinsurance costs, and for sales levels when products are designed and priced, as well as in the determination of policy liabilities. Assumptions for future claims are generally based on both Company and industry experience, and assumptions for future policyholder behaviour and expenses are generally based on Company experience. Such assumptions require significant professional judgment, and actual experience may be materially different than the assumptions made by the Company. Claims may be impacted unexpectedly by changes in the prevalence of diseases or illnesses, medical and technology advances, widespread lifestyle changes, natural disasters, large-scale man-made disasters and acts of terrorism. Policyholder behaviour including premium payment patterns, policy renewals, lapse

rates and withdrawal and surrender activity are influenced by many factors including market and general economic conditions, and the availability and relative attractiveness of other products in the marketplace. Some reinsurance rates are not guaranteed and may be changed unexpectedly. Adjustments the Company seeks to make to Non-Guaranteed elements to reflect changing experience factors may be challenged by regulatory or legal action and the Company may be unable to implement them or may face delays in implementation.

The Company manages insurance risk through global policies, standards and best practices with respect to product design, pricing, underwriting and claim adjudication, and a global underwriting manual. Each business unit establishes underwriting policies and procedures, including criteria for approval of risks and claims adjudication policies and procedures. The current global life retention limit is US$30 for individual policies (US$35 for survivorship life policies) and is shared across businesses. Lower limits are applied in some markets and jurisdictions. The Company aims to further reduce exposure to claims concentrations by applying geographical aggregate retention limits for certain covers. Enterprise-wide, the Company aims to reduce the likelihood of high aggregate claims by operating globally, insuring a wide range of unrelated risk events, and reinsuring some risk.

(j) Concentration risk

The geographic concentration of the Company's insurance and investment contract liabilities, including embedded derivatives, is shown below. The disclosure is based on the countries in which the business is written.

As at December 31, 2023	Insurance contract liabilities	Investment contract liabilities	Reinsurance assets	Net liabilities
U.S. and Canada	**$ 327,458**	**$ 260,046**	**$ (39,080)**	**$ 548,424**
Asia and Other	**154,536**	**15,171**	**(1,169)**	**168,538**
Total	**$ 481,994**	**$ 275,217**	**$ (40,249)**	**$ 716,962**

As at December 31, 2022	Insurance contract liabilities	Investment contract liabilities	Reinsurance assets	Net liabilities
U.S. and Canada	$ 322,265	$ 233,460	$ (42,573)	$ 513,152
Asia and Other	142,127	14,965	(1,480)	155,612
Total	$ 464,392	$ 248,425	$ (44,053)	$ 668,764

(k) Reinsurance risk

In the normal course of business, the Company limits the amount of loss on any one policy by reinsuring certain levels of risk with other insurers. In addition, the Company accepts reinsurance from other reinsurers. Reinsurance ceded does not discharge the Company's liability as the primary insurer. Failure of reinsurers to honour their obligations could result in losses to the Company; consequently, allowances are established for amounts deemed uncollectible. To minimize losses from reinsurer insolvency, the Company monitors the concentration of credit risk both geographically and with any one reinsurer. In addition, the Company selects reinsurers with high credit ratings.

As at December 31, 2023, the Company had $40,249 (2022 – $44,053) of reinsurance assets. Of this, 91 per cent (2022 – 91 per cent) were ceded to reinsurers with Standard and Poor's ratings of A- or above. The Company's exposure to credit risk was mitigated by $22,264 fair value of collateral held as security as at December 31, 2023 (2022 – $25,247). Net exposure after considering offsetting agreements and the benefit of the fair value of collateral held was $17,984 as at December 31, 2023 (2022 – $22,465).

Note 10 Capital Instruments

(a) Carrying value of capital instruments

As at December 31,	Issuance date	Earliest par redemption date	Maturity date	Par value	2023	2022
JHFC Subordinated notes[(1),(2)]	December 14, 2006	n/a	December 15, 2036	$650	**$ 647**	$ 647
7.375% JHUSA Surplus notes[(3)]	February 25, 1994	n/a	February 15, 2024	US$450	**594**	615
Total					**$ 1,241**	$ 1,262

(1) The Company is monitoring regulatory and market developments globally with respect to the interest rate benchmark reform. The Company will take appropriate actions in due course to accomplish any necessary transitions or replacements. As at December 31, 2023, subordinated notes of $647 (2022 – $647) have an interest rate referencing CDOR. Future rate resets for the subordinated notes may rely on the Canadian Overnight Repo Rate Average (CORRA), the alternative rate for CDOR.

(2) Issued by Manulife Holdings (Delaware) LLC ("MHDLL"), now John Hancock Financial Corporation ("JHFC"), a wholly owned subsidiary of MFC, to Manulife Finance (Delaware) LLC ("MFLLC"), a subsidiary of Manulife Finance (Delaware) L.P. ("MFLP"). MFLP and its subsidiaries are wholly owned unconsolidated related parties of MFC and are partially owned related parties of the Company. The notes bear interest at a floating rate equal to the 90-day Bankers' Acceptance rate plus 0.72%. With regulatory approval, JHFC may redeem the note, in whole or in part, at any time, at par, together with accrued and unpaid interest. Refer to note 17 (b). This subordinated debenture is included in related party capital instruments (refer to note 20 (b)).

(3) Issued by John Hancock Mutual Life Insurance Company, now John Hancock Life Insurance Company (U.S.A.). Any payment of interest or principal on the surplus notes requires prior approval from the Department of Insurance and Financial Services of the State of Michigan. The carrying value of the surplus notes reflects an unamortized fair value increment of US$1 (2022 – US$5), which arose as a result of the acquisition of John Hancock Financial Services, Inc. The amortization of the fair value adjustment is recorded in interest expense.

(b) Fair value measurement

Fair value of capital instruments is determined using the following hierarchy:

Level 1 – Fair value is determined using quoted market prices where available.

Level 2 – When quoted market prices are not available, fair value is determined with reference to quoted prices of similar debt instruments or estimated using discounted cash flows based on observable market rates.

The Company measures capital instruments at amortized cost in the Consolidated Statements of Financial Position. As at December 31, 2023, the fair value of capital instruments was $1,242 (2022 – $1,243). Fair value of capital instruments was determined using Level 2 valuation techniques (2022 – Level 2).

Note 11 Share Capital

The authorized capital of MLI consists of:

- an unlimited number of common shares without nominal or par value; and
- an unlimited number of Class A, Class B and Class 1 preferred shares without nominal or par value, issuable in series.

	2023		2022	
For the years ended December 31,	Number of shares	Amount	Number of shares	Amount
Common shares	**5,638,986,472**	**$ 44,792**	5,638,986,470	$ 43,592

During 2023, MLI issued 1 common share to MFC in exchange for $1,200 and 1 common share to MFC in connection with the acquisition of the shares of certain MFC subsidiaries.

During 2022, MLI issued 2 common shares to MFC in exchange for $1,962 and 1 common share to MFC in connection with the acquisition of the shares of certain MFC subsidiaries.

Note 12 Capital Management

(a) Capital management

The Company monitors and manages its consolidated capital in compliance with the Life Insurance Capital Adequacy Test ("LICAT") guideline, the capital framework issued by OSFI. Under the capital framework, the Company's consolidated capital resources, including available capital, surplus allowance, and eligible deposits, are measured against the base solvency buffer, which is the risk-based capital requirement determined in accordance with the guideline.

The Company seeks to manage its capital with the objectives of:

- Operating with sufficient capital to be able to honour all commitments to its policyholders and creditors with a high degree of confidence;
- Retaining the ongoing confidence of regulators, policyholders, rating agencies, investors and other creditors in order to ensure access to capital markets; and

- Optimizing return on capital to meet shareholder's expectations subject to constraints and considerations of adequate levels of capital established to meet the first two objectives.

Capital is managed and monitored in accordance with the Capital Management Policy. The policy is reviewed and approved by the Board of Directors annually and is integrated with the Company's risk and financial management frameworks. It establishes guidelines regarding the quantity and quality of capital, internal capital mobility, and proactive management of ongoing and future capital requirements.

The capital management framework considers the requirements of the Company as a whole as well as the needs of each of the Company's subsidiaries. Internal capital targets are set above the regulatory requirements, and consider a number of factors, including expectations of regulators and rating agencies, results of sensitivity and stress testing and the Company's own risk assessments. The Company monitors against these internal targets and initiates actions appropriate to achieving its business objectives.

Consolidated capital, whose components are based on accounting standards, is presented in the table below for MLI. For regulatory reporting purposes, under the LICAT framework, the numbers are further adjusted for various additions or deductions to capital as mandated by the guidelines used by OSFI.

Consolidated capital

As at December 31,	2023	2022
Total equity	$ 60,343	$ 59,358
Exclude AOCI gain / (loss) on cash flow hedges	(55)	(72)
Total equity excluding AOCI on cash flow hedges	60,398	59,430
Post-tax CSM	18,503	15,251
Qualifying capital instruments	1,241	1,262
Consolidated capital	**$ 80,142**	$ 75,943

(b) Restrictions on dividends and capital distributions

Dividends and capital distributions are restricted under the ICA. The ICA prohibits the declaration or payment of any dividend on shares of an insurance company if there are reasonable grounds for believing a company does not have adequate capital and adequate and appropriate forms of liquidity or the declaration or the payment of the dividend would cause the company to be in contravention of any regulation made under the ICA respecting the maintenance of adequate capital and adequate and appropriate forms of liquidity, or of any direction made to the company by OSFI. The ICA also requires an insurance company to notify OSFI of the declaration of a dividend at least 15 days prior to the date fixed for its payment. Similarly, the ICA prohibits the purchase for cancellation of any shares issued by an insurance company or the redemption of any redeemable shares or other similar capital transactions, if there are reasonable grounds for believing that the company does not have adequate capital and adequate and appropriate forms of liquidity or the payment would cause the company to be in contravention of any regulation made under the ICA respecting the maintenance of adequate capital and adequate and appropriate forms of liquidity, or any direction made to the company by OSFI. These latter transactions would require the prior approval of OSFI.

The ICA requires Canadian insurance companies to maintain adequate levels of capital at all times.

MLI's ability to pay future dividends will depend in part on the receipt of sufficient funds from its regulated insurance subsidiaries. These subsidiaries are also subject to certain regulatory restrictions under laws in Canada, the United States and certain other countries that may limit their ability to pay dividends or make other upstream distributions.

Note 13 Revenue from Service Contracts

The Company provides investment management services, transaction processing and administrative services and distribution and related services to proprietary and third-party investment funds, retirement plans, group benefit plans, institutional investors and other arrangements. The Company also provides real estate management services to tenants of the Company's investment properties.

The Company's service contracts generally impose single performance obligations, each consisting of a series of similar related services for each customer.

The Company's performance obligations within service arrangements are generally satisfied over time as the customer simultaneously receives and consumes the benefits of the services rendered, measured using an output method. Fees

typically include variable consideration and the related revenue is recognized to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty is subsequently resolved.

Asset based fees vary with asset values of accounts under management, subject to market conditions and investor behaviors beyond the Company's control. Transaction processing and administrative fees vary with activity volume, also beyond the Company's control. Some fees, including distribution fees, are based on account balances and transaction volumes. Fees related to account balances and transaction volumes are measured daily. Real estate management service fees include fixed portions plus recovery of variable costs of services rendered to tenants. Fees related to services provided are generally recognized as services are rendered, which is when it becomes highly probable that no significant reversal of cumulative revenue recognized will occur. The Company has determined that its service contracts have no significant financing components because fees are collected monthly. The Company has no significant contract assets or contract liabilities.

The following table presents revenue from service contracts by service lines and reporting segments as disclosed in note 19. Asia, Canada, and U.S. reporting segments are combined with Corporate and Other as a result of the implementation of IFRS 17.

For the year ended December 31, 2023	Global WAM	Asia, Canada, U.S., and Corporate and Other	Total
Investment management and other related fees	**$ 3,298**	**$ (412)**	**$ 2,886**
Transaction processing, administration, and service fees	**2,566**	**269**	**2,835**
Distribution fees and other	**842**	**54**	**896**
Total included in other revenue	**6,706**	**(89)**	**6,617**
Revenue from non-service lines	**3**	**116**	**119**
Total other revenue	**$ 6,709**	**$ 27**	**$ 6,736**
Real estate management services included in net investment income	**$ -**	**$ 303**	**$ 303**

For the year ended December 31, 2022	Global WAM	Asia, Canada, U.S., and Corporate and Other	Total
Investment management and other related fees	$ 3,079	$ (315)	$ 2,764
Transaction processing, administration, and service fees	2,416	268	2,684
Distribution fees and other	910	89	999
Total included in other revenue	6,405	42	6,447
Revenue from non-service lines	(14)	(210)	(224)
Total other revenue	$ 6,391	$ (168)	$ 6,223
Real estate management services included in net investment income	$ -	$ 305	$ 305

Note 14 Stock-Based Compensation

Selected individuals employed by the Company are granted MFC stock options under MFC's Executive Stock Option Plan ("ESOP"). The options provide the holder the right to purchase MFC common shares at an exercise price equal to the higher of the prior day, prior five-day or prior ten-day average closing market price of MFC common shares on the Toronto Stock Exchange on the date the options are granted. The options vest over a period not exceeding four years and expire not more than 10 years from the grant date. Effective with the 2015 grant, options may only be exercised after the fifth-year anniversary.

For the year ended December 31, 2023, 8.5 million Restricted Share Units ("RSUs") (2022 – 8.6 million) and 1.6 million Performance Share Units ("PSUs") (2022 – 1.7 million) were granted to certain eligible employees under MFC's Restricted Share Unit Plan. The fair value of the RSUs and PSUs granted during the year was $29.28 per unit as at December 31, 2023 (2022 – $24.15 per unit). Each RSU and PSU entitles the holder to receive payment equal to the market value of one common share of MFC, plus credited dividends, at the time of vesting, subject to any performance conditions.

RSUs and PSUs granted in March 2023 will vest after 36 months from their grant date and the related compensation expense is recognized over this period, unless the employee is eligible to retire at the time of grant or will be eligible to retire during the vesting period, in which case the cost is recognized at the grant date or over the period between the grant date

and the date on which the employee is eligible to retire, respectively. Compensation expense related to RSUs and PSUs was $207 and $45, respectively, for the year ended December 31, 2023 (2022 – $158 and $23, respectively).

In aggregate, the Company recorded stock-based compensation expense of $259 for the year ended December 31, 2023 (2022 – $186).

The Company's Global Share Ownership Plan allows qualifying employees to apply up to five per cent of their annual base earnings toward the purchase of MFC common shares. The Company matches a percentage of the employee's eligible contributions up to a maximum amount. The Company's contributions vest immediately. All contributions are used to purchase MFC common shares in the open market on behalf of participating employees.

Note 15 Employee Future Benefits

The Company maintains defined contribution and defined benefit pension plans and other post-employment plans for employees and agents including registered (tax-qualified) pension plans that are typically funded, as well as supplemental non-registered (non-qualified) pension plans for executives, retiree welfare plans and disability welfare plans that are typically not funded.

(a) Plan characteristics

The Company's final average pay defined benefit pension plans and retiree welfare plans are closed to new members. All employees may participate in capital accumulation plans including defined benefit cash balance plans, 401(k) plans and/or defined contribution plans, depending on the country of employment.

All pension arrangements are governed by local pension committees or management, but significant plan changes require approval from the Company's Board of Directors.

The Company's funding policy for defined benefit pension plans is to make the minimum annual contributions required by regulations in the countries in which the plans are offered. Assumptions and methods prescribed for regulatory funding purposes typically differ from those used for accounting purposes.

The Company's remaining defined benefit pension and/or retiree welfare plans are in the U.S., Canada, Japan and Taiwan (China). There are also disability welfare plans in the U.S. and Canada.

The largest defined benefit pension and retiree welfare plans are the primary plans for employees in the U.S. and Canada. These are the material plans that are discussed in the balance of this note. The Company measures its defined benefit obligations and fair value of plan assets for accounting purposes as at December 31 each year.

U.S. defined benefit pension and retiree welfare plans

The Company operates a qualified cash balance plan that is open to new members, a closed non-qualified cash balance plan, and a closed retiree welfare plan.

Actuarial valuations to determine the Company's minimum funding contributions for the qualified cash balance plan are required annually. Deficits revealed in the funding valuations must generally be funded over a period of up to seven years. It is expected that there will be no required funding for this plan in 2024. No assets are held in the non-qualified cash balance plan.

The retiree welfare plan subsidizes the cost of life insurance and medical benefits. The majority of those who retired after 1991 receive a fixed-dollar subsidy from the Company based on service. The plan was closed to all employees hired after 2004. While assets have been set aside in a qualified trust to pay future retiree welfare benefits, this funding is optional. Retiree welfare benefits offered under the plan coordinate with the U.S. Medicare program to make optimal use of available federal financial support.

The qualified pension and retiree welfare plans are governed by the U.S. Benefits Committee, while the non-qualified pension plan is governed by the U.S. Non-Qualified Plans Subcommittee.

Canadian defined benefit pension and retiree welfare plans

The Company's defined benefit plans in Canada include two registered final average pay pension plans, a non-registered supplemental final average pay pension plan and a retiree welfare plan, all of which have been closed to new members.

Actuarial valuations to determine the Company's minimum funding contributions for the registered pension plans are required at least once every three years. Deficits revealed in the funding valuation must generally be funded over a period of ten years. For 2024, the required funding for these plans is expected to be $2. No assets are held in the non-registered supplemental pension plan.

The retiree welfare plan subsidizes the cost of life insurance, medical and dental benefits. These subsidies are a fixed-dollar amount for those who retired after April 30, 2013 and have been eliminated for those who retire after 2019. No assets are held in this plan.

The registered pension plans are governed by Pension Committees, while the supplemental non-registered plan is governed by the Board of Directors. The retiree welfare plan is governed by management.

(b) Risks

In final average pay pension plans and retiree welfare plans, the Company generally bears the material risks which include interest rate, investment, longevity and health care cost inflation risks. In defined contribution plans, these risks are typically borne by the employee. In cash balance plans, the interest rate, investment and longevity risks are partially transferred to the employee.

Material sources of risk to the Company for all plans include:

- A decline in discount rates that increases the defined benefit obligations by more than the change in value of plan assets;
- Lower than expected rates of mortality; and
- For retiree welfare plans, higher than expected health care costs.

The Company has managed these risks through plan design and eligibility changes that have limited the size and growth of the defined benefit obligations. Investment risks for funded plans are managed by investing significantly in asset classes which are highly correlated with the plans' liabilities.

In the U.S., delegated committee representatives and management review the financial status of the qualified defined benefit pension plan at least monthly, and steps are taken in accordance with an established dynamic investment policy to increase the plan's allocation to asset classes which are highly correlated with the plan's liabilities and reduce investment risk as the funded status improves. As at December 31, 2023, the target asset allocation for the plan was 30% return-seeking assets and 70% liability-hedging assets (2022 – 30% and 70%).

In Canada, internal committees and management review the financial status of the registered defined benefit pension plans on at least a quarterly basis. As at December 31, 2023, the target asset allocation for the plans was 17% return-seeking assets and 83% liability-hedging assets (2022 – 20% and 80%).

There remains significant uncertainty related to the potential long-term impacts of the COVID-19 pandemic (on future mortality, etc.). The Company considers recent experience when setting the long-term assumptions. Experience related to COVID-19 will continue to be closely monitored, as well as emerging research on the long-term implications of COVID-19 on mortality, inflation and other assumptions.

(c) Pension and retiree welfare plans

The following tables present the reconciliation of defined benefit obligation and fair value of plan assets for the pension plans and retiree welfare plans.

	Pension plans		Retiree welfare plans	
For the years ended December 31,	**2023**	2022	**2023**	2022
Changes in defined benefit obligation:				
Opening balance	**$ 3,794**	$ 4,560	**$ 466**	$ 584
Current service cost	**41**	43	**-**	-
Past service cost - amendment	**-**	(6)	**-**	-
Interest cost	**184**	127	**22**	16
Plan participants' contributions	**-**	-	**3**	3
Actuarial losses (gains) due to:				
Experience	**11**	5	**(10)**	(13)
Demographic assumption changes	**14**	-	**1**	-
Economic assumption changes	**119**	(835)	**16**	(112)
Benefits paid	**(308)**	(299)	**(38)**	(40)
Impact of changes in foreign exchange rates	**(66)**	199	**(10)**	28
Defined benefit obligation, December 31	**$ 3,789**	$ 3,794	**$ 450**	$ 466

For the years ended December 31,	Pension plans 2023	Pension plans 2022	Retiree welfare plans 2023	Retiree welfare plans 2022
Change in plan assets:				
Fair value of plan assets, opening balance	**$ 3,722**	$ 4,510	**$ 523**	$ 587
Interest income	**181**	127	**25**	16
Return on plan assets (excluding interest income)	**129**	(869)	**17**	(91)
Employer contributions	**59**	59	**12**	11
Plan participants' contributions	**-**	-	**3**	3
Benefits paid	**(308)**	(299)	**(38)**	(40)
Administration costs	**(10)**	(11)	**(1)**	(2)
Impact of changes in foreign exchange rates	**(67)**	205	**(15)**	39
Fair value of plan assets, December 31	**$ 3,706**	$ 3,722	**$ 526**	$ 523

(d) Amounts recognized in the Consolidated Statements of Financial Position

The following table presents the deficit (surplus) and net defined benefit liability (asset) for the pension plans and retiree welfare plans.

As at December 31,	Pension plans 2023	Pension plans 2022	Retiree welfare plans 2023	Retiree welfare plans 2022
Development of net defined benefit liability				
Defined benefit obligation	**$ 3,789**	$ 3,794	**$ 450**	$ 466
Fair value of plan assets	**3,706**	3,722	**526**	523
Deficit (surplus)	**83**	72	**(76)**	(57)
Effect of asset limit[(1)]	**41**	48	**-**	-
Deficit (surplus) and net defined benefit liability (asset)	**124**	120	**(76)**	(57)
Deficit is comprised of:				
Funded or partially funded plans	**(422)**	(441)	**(190)**	(168)
Unfunded plans	**546**	561	**114**	111
Deficit (surplus) and net defined benefit liability (asset)	**$ 124**	$ 120	**$ (76)**	$ (57)

(1) The asset limit relates to a registered pension plan in Canada. The surplus in that plan is above the present value of economic benefits that can be derived by the Company through reductions in future contributions. For other funded pension plans in surplus position, the present value of the economic benefits available in the form of reductions in future contributions to the plans remains greater than the current surplus.

(e) Disaggregation of defined benefit obligation

The following table presents components of the defined benefit obligation between active members and inactive and retired members.

	U.S. plans				**Canadian plans**			
	Pension plans		Retiree welfare plans		Pension plans		Retiree welfare plans	
As at December 31,	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	2022
Active members	**$ 526**	$ 509	**$ 9**	$ 11	**$ 116**	$ 125	**$ -**	$ -
Inactive and retired members	**1,907**	2,006	**327**	344	**1,240**	1,154	**114**	111
Total	**$ 2,433**	$ 2,515	**$ 336**	$ 355	**$ 1,356**	$ 1,279	**$ 114**	$ 111

(f) Fair value measurements

The following tables present major categories of plan assets and the allocation to each category.

	U.S. plans[1]				Canadian plans[2]			
	Pension plans		Retiree welfare plans		Pension plans		Retiree welfare plans	
As at December 31, 2023	Fair value	% of total	Fair value	% of total	Fair value	% of total	Fair value	% of total
Cash and cash equivalents	**$ 28**	**1%**	**$ 25**	**5%**	**$ 15**	**1%**	**$ -**	**-**
Public equity securities[3]	**315**	**13%**	**39**	**7%**	**195**	**17%**	**-**	**-**
Public debt securities	**1,437**	**57%**	**448**	**85%**	**974**	**82%**	**-**	**-**
Other investments[4]	**741**	**29%**	**14**	**3%**	**1**	**0%**	**-**	**-**
Total	**$ 2,521**	**100%**	**$ 526**	**100%**	**$ 1,185**	**100%**	**$ -**	**-**

	U.S. plans[1]				Canadian plans[2]			
	Pension plans		Retiree welfare plans		Pension plans		Retiree welfare plans	
As at December 31, 2022	Fair value	% of total	Fair value	% of total	Fair value	% of total	Fair value	% of total
Cash and cash equivalents	$ 35	1%	$ 22	4%	$ 9	1%	$ -	-
Public equity securities[3]	377	15%	41	8%	233	20%	-	-
Public debt securities	1,509	58%	445	85%	898	79%	-	-
Other investments[4]	660	26%	15	3%	1	0%	-	-
Total	$ 2,581	100%	$ 523	100%	$ 1,141	100%	$ -	-

[1] The U.S. pension and retiree welfare plan assets have daily quoted prices in active markets, except for the private debt, infrastructure, private equity, real estate, timber and agriculture assets. In the aggregate, the latter assets represent approximately 16% of all U.S. pension and retiree welfare plan assets as at December 31, 2023 (2022 – 15%).

[2] All the Canadian pension plan assets have daily quoted prices in active markets, except for the group annuity contract assets that represent approximately 0.1% of all Canadian pension plan assets as at December 31, 2023 (2022 – 0.1%).

[3] Equity securities include direct investments in MFC common shares of $1.4 (2022 – $1.2) in the U.S. retiree welfare plan.

[4] Other U.S. plan assets include investment in real estate, private debt, infrastructure, private equity, timberland and agriculture and managed futures. Other Canadian pension plan assets include investment in the group annuity contract.

(g) Net benefit cost recognized in the Consolidated Statements of Income

The following table presents components of the net benefit cost for the pension plans and retiree welfare plans.

	Pension plans		Retiree welfare plans	
For the years ended December 31,	**2023**	2022	**2023**	2022
Defined benefit current service cost[1]	**$ 41**	$ 43	**$ -**	$ -
Defined benefit administrative expenses	**10**	11	**1**	2
Past service cost - plan amendments and curtailments	**-**	(6)	**-**	-
Service cost	**51**	48	**1**	2
Interest on net defined benefit (asset) liability	**5**	2	**(3)**	-
Defined benefit cost	**56**	50	**(2)**	2
Defined contribution cost	**93**	85	**-**	-
Net benefit cost	**$ 149**	$ 135	**$ (2)**	$ 2

[1] There are no significant current service costs for the retiree welfare plans as they are closed and mostly frozen. The re-measurement gain or loss on these plans is due to the volatility of discount rates and investment returns.

(h) Re-measurement effects recognized in Other Comprehensive Income

The following table presents components of the re-measurement effects recognized in Other Comprehensive Income for the pension plans and retiree welfare plans.

	Pension plans		Retiree welfare plans	
For the years ended December 31,	**2023**	2022	**2023**	2022
Actuarial gains (losses) on defined benefit obligations due to:				
Experience	**$ (11)**	$ (5)	**$ 10**	$ 13
Demographic assumption changes	**(14)**	-	**(1)**	-
Economic assumption changes	**(119)**	835	**(16)**	112
Return on plan assets (excluding interest income)	**129**	(869)	**17**	(91)
Change in effect of asset limit (excluding interest)	**10**	(10)	**-**	-
Total re-measurement effects	**$ (5)**	$ (49)	**$ 10**	$ 34

(i) Assumptions

The following table presents key assumptions used by the Company to determine the defined benefit obligation and net benefit cost for the defined benefit pension plans and retiree welfare plans.

	U.S. Plans				Canadian Plans			
	Pension plans		Retiree welfare plans		Pension plans		Retiree welfare plans	
For the years ended December 31,	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	2022
To determine the defined benefit obligation at end of year[1]:								
Discount rate	**4.8%**	5.0%	**4.8%**	5.0%	**4.6%**	5.3%	**4.7%**	5.3%
Initial health care cost trend rate[2]	**n/a**	n/a	**9.0%**	7.8%	**n/a**	n/a	**3.9%**	5.3%
To determine the defined benefit cost for the year[1]:								
Discount rate	**5.0%**	2.7%	**5.0%**	2.7%	**5.3%**	3.1%	**5.3%**	3.2%
Initial health care cost trend rate[2]	**n/a**	n/a	**7.8%**	7.0%	**n/a**	n/a	**5.3%**	5.4%

[1] Inflation and salary increase assumptions are not shown as they do not materially affect obligations and cost.

[2] The health care cost trend rate used to measure the U.S. based retiree welfare obligation was 9.0% grading to 4.8% for 2041 and years thereafter (2022 – 7.8% grading to 4.8% for 2035 and years thereafter) and to measure the net benefit cost was 7.8% grading to 4.8% for 2035 and years thereafter (2022 – 7.0% grading to 4.5% for 2032 and years thereafter). In Canada, the rate used to measure the retiree welfare obligation was 5.1% in 2023 and 3.9% in 2024, grading to 4.0% for 2029 and years thereafter (2022 – 5.3% grading to 4.8% for 2026 and years thereafter) and to measure the net benefit cost was 5.3% grading to 4.8% for 2026 and years thereafter (2022 – 5.4% grading to 4.8% for 2026 and years thereafter).

Assumptions regarding future mortality are based on published statistics and mortality tables. The following table presents current life expectancies underlying the values of the obligations in the defined benefit pension and retiree welfare plans.

As at December 31, 2023	U.S.	Canada
Life expectancy (in years) for those currently age 65		
Males	**22.2**	**24.3**
Females	**23.7**	**26.2**
Life expectancy (in years) at age 65 for those currently age 45		
Males	**23.6**	**25.3**
Females	**25.0**	**27.1**

(j) Sensitivity of assumptions on obligations

Assumptions used can have a significant effect on the obligations reported for defined benefit pension and retiree welfare plans. The following table sets out the potential impact on the obligations arising from changes in the key assumptions. Each sensitivity assumes that all other assumptions are held constant. In actuality, inter-relationships among assumptions may exist.

As at December 31, 2023	Pension plans	Retiree welfare plans
Discount rate:		
Impact of a 1% increase	**$ (274)**	**$ (38)**
Impact of a 1% decrease	**316**	**44**
Health care cost trend rate:		
Impact of a 1% increase	**n/a**	**11**
Impact of a 1% decrease	**n/a**	**(10)**
Mortality rates[1]		
Impact of a 10% decrease	**89**	**6**

[1] If the actuarial estimates of mortality are adjusted in the future to reflect unexpected decreases in mortality, the effect of a 10% decrease in mortality rates at each future age would be an increase in life expectancy at age 65 of 0.8 years for U.S. and Canadian males and females.

(k) Maturity profile

The following table presents weighted average duration (in years) of the defined benefit obligations.

	Pension plans		Retiree welfare plans	
As at December 31,	**2023**	2022	**2023**	2022
U.S. plans	**8.4**	8.2	**8.2**	8.2
Canadian plans	**9.9**	10.6	**11.1**	11.1

(l) Cash flows – contributions

The following table presents total cash payments for all employee future benefits, comprised of cash contributed by the Company to funded defined benefit pension and retiree welfare plans, cash payments directly to beneficiaries in respect of unfunded pension and retiree welfare plans, and cash contributed to defined contribution pension plans.

	Pension plans		Retiree welfare plans	
For the years ended December 31,	**2023**	2022	**2023**	2022
Defined benefit plans	**$ 59**	$ 59	**$ 12**	$ 11
Defined contribution plans	**93**	85	**-**	-
Total	**$ 152**	$ 144	**$ 12**	$ 11

The Company's best estimate of expected cash payments for employee future benefits for the year ending December 31, 2024 is $61 for defined benefit pension plans, $96 for defined contribution pension plans and $13 for retiree welfare plans.

Note 16 Income Taxes

(a) Income tax expense

The following table presents income tax expenses (recoveries) recognized in the Consolidated Statements of Income.

For the years ended December 31,	2023	2022
Current tax		
Current year	$ 563	$ 1,097
Adjustments related to prior years	(193)	(263)
Total current tax	370	834
Deferred tax		
Change related to temporary differences	671	(1,812)
Adjustments related to prior years	(18)	226
Effects of change in tax rates in Canada	-	(230)
Total deferred tax	653	(1,816)
Income tax expenses (recoveries)	$ 1,023	$ (982)

The following table discloses income tax expenses (recoveries) recognized directly in equity.

For the years ended December 31,	2023	2022
Recognized in other comprehensive income		
Current income tax expenses (recoveries)	$ 320	$ (324)
Deferred income tax expenses (recoveries)	(302)	3,033
Total recognized in other comprehensive income	$ 18	$ 2,709
Recognized in equity, other than other comprehensive income		
Current income tax expenses (recoveries)	$ 6	$ 4
Deferred income tax expenses (recoveries)	(171)	(151)
Total income tax recognized directly in equity	$ (165)	$ (147)

(b) Current tax receivable and payable

As at December 31, 2023, the Company had approximately $1,056 of current tax recoverable included in other assets (2022 – $1,135) and a current tax payable of $144 included in other liabilities (2022 – $194).

(c) Tax reconciliation

The effective income tax rate reflected in the Consolidated Statements of Income varies from the Canadian tax rate of 27.80 percent for the year ended December 31, 2023 (2022 – 27.50 percent) for the items outlined in the following table. The Canadian tax rate became substantively enacted in December 2022 with an effective date of April 7, 2022.

For the years ended December 31,	2023	2022
Net income (loss) before income taxes	$ 6,954	$ (2,669)
Income tax expenses (recoveries) at Canadian statutory tax rate	$ 1,933	$ (734)
Increase (decrease) in income taxes due to:		
Tax-exempt investment income	(199)	(206)
Differences in tax rate on income not subject to tax in Canada	(778)	114
Adjustments to taxes related to prior years	(211)	(37)
Tax losses and temporary differences not recognized as deferred taxes	(38)	78
Tax rate change in Canada	-	(230)
Other differences	316	33
Income tax expenses (recoveries)	$ 1,023	$ (982)

(d) Deferred tax assets and liabilities

The following table presents the Company's deferred tax assets and liabilities reflected on the Consolidated Statements of Financial Position.

As at December 31,	2023	2022
Deferred tax assets	$ 6,639	$ 6,648
Deferred tax liabilities	(1,697)	(1,536)
Net deferred tax assets (liabilities)	$ 4,942	$ 5,112

The following table presents movement of deferred tax assets and liabilities.

For the year ended December 31,	Balance, January 1, 2023	Disposals	Recognized in income	Recognized in other comprehensive income	Recognized in equity	Translation and other	Balance, December 31, 2023
Loss carryforwards	$ 648	$ -	$ (207)	$ -	$ 172	$ (4)	$ 609
Actuarial liabilities	4,507	-	188	1,198	-	(80)	5,813
Pensions and post-employment benefits	142	-	4	26	-	(1)	171
Tax credits	103	-	11	-	-	(2)	112
Accrued interest	1	-	-	-	-	-	1
Real estate	(1,317)	-	168	-	-	14	(1,135)
Lease liability	47	-	(7)	-	-	(2)	38
Right of use asset and sublease receivable	(41)	-	7	-	-	-	(34)
Securities and other investments	1,615	-	(295)	(1,269)	2	61	114
Sale of investments	(31)	-	12	-	-	-	(19)
Goodwill and intangible assets	(828)	-	(12)	-	-	18	(822)
Other	266	-	(522)	347	(3)	6	94
Total	$ 5,112	$ -	$ (653)	$ 302	$ 171	$ 10	$ 4,942

For the year ended December 31,	Balance, January 1, 2022	Disposals	Recognized in income	Recognized in other comprehensive income	Recognized in equity	Translation and other	Balance, December 31, 2022
Loss carryforwards	$ 500	$ -	$ (3)	$ -	$ 151	$ -	$ 648
Actuarial liabilities	13,731	-	2,334	(12,005)	11	436	4,507
Pensions and post-employment benefits	161	-	(2)	(17)	-	-	142
Tax credits	41	-	62	-	-	-	103
Accrued interest	1	-	-	-	-	-	1
Real estate	(1,287)	-	10	(1)	-	(39)	(1,317)
Lease liability	26	-	17	-	3	1	47
Right of use asset and sublease receivable	(22)	-	(18)	-	(2)	1	(41)
Securities and other investments	(6,433)	-	(702)	8,988	(10)	(228)	1,615
Sale of investments	(41)	-	10	-	-	-	(31)
Goodwill and intangible assets	(804)	-	(6)	-	-	(18)	(828)
Other	153	-	114	2	(2)	(1)	266
Total	$ 6,026	$ -	$ 1,816	$ (3,033)	$ 151	$ 152	$ 5,112

The total deferred tax assets as at December 31, 2023 of $6,639 (2022 – $6,648) includes $6,136 relating to 2023 where the Company has suffered losses in either the current or preceding year and where the recognition is dependent on future taxable profits in the relevant jurisdictions and feasible management actions.

As at December 31, 2023, tax loss carryforwards available were approximately $3,327 (2022 – $3,712), of which $3,078 expire between the years 2025 and 2043 while $249 have no expiry date, and capital loss carryforwards available were approximately $5 (2022 – $1) and have no expiry date. A $609 (2022 – $648) tax benefit related to these tax loss carryforwards has been recognized as a deferred tax asset as at December 31, 2023, and a benefit of $222 (2022 – $211) has not been recognized. The Company has approximately $272 (2022 – $267) of tax credit carryforwards which will expire between the years 2026 and 2043 of which a benefit of $160 (2022 – $164) has not been recognized. In addition, the Company has not recognized a deferred tax asset of $1,166 (2022 – $645) on other temporary differences of $5,316(2022 – $2,458).

The total deferred tax liability as at December 31, 2023 was $1,697 (2022 – $1,536). This amount includes the deferred tax liability of consolidated entities. The aggregate amount of taxable temporary differences associated with the Company's own investments in subsidiaries is not included in the Consolidated Financial Statements and was $34,306 (2022 – $33,549).

Note 17 Interests in Structured Entities

The Company is involved with both consolidated and unconsolidated structured entities ("SEs") which are established to generate investment and fee income. The Company is also involved with SEs that are used to facilitate financing for the Company. These entities may have some or all the following features: control is not readily identified based on voting rights; restricted activities designed to achieve a narrow objective; high amount of leverage; and/or highly structured capital.

The Company only discloses its involvement in significant consolidated and unconsolidated SEs. In assessing the significance, the Company considers the nature of its involvement with the SE, including whether it is sponsored by the Company (i.e., initially organized and managed by the Company). Other factors considered include the Company's investment in the SE as compared to total investments, its returns from the SE as compared to total net investment income, the SE's size as compared to total funds under management, and its exposure to any other risks from its involvement with the SE.

The Company does not provide financial or other support to its SEs, when it does not have a contractual obligation to do so.

(a) Consolidated SEs

(I) Investment SEs

The Company acts as an investment manager of timberlands and timber companies. The Company's general fund and segregated funds invest in many of these companies. The Company has control over one timberland company which it manages, Hancock Victoria Plantations Holdings PTY Limited ("HVPH"). HVPH is a SE primarily because the Company's employees exercise voting rights over it on behalf of other investors. As at December 31, 2023, the Company's consolidated timber assets relating to HVPH were $1,236 (2022 – $1,264). The Company does not provide guarantees to other parties against the risk of loss from HVPH.

(II) Financing SEs

The Company securitizes certain HELOC collateralized by residential property. This activity is facilitated by consolidated entities that are SEs because their operations are limited to issuing and servicing the Company's funding. Further information regarding the Company's mortgage securitization program is included in note 4.

(b) Unconsolidated SEs

Investment SEs

The following table presents the Company's investments and maximum exposure to loss from significant unconsolidated investment SEs, some of which are sponsored by the Company. The Company does not provide guarantees to other parties against the risk of loss from these SEs.

	Company's investment[1]		Company's maximum exposure to loss[2]	
As at December 31,	**2023**	2022	**2023**	2022
Leveraged leases[3]	**$ 3,790**	$ 3,840	**$ 3,790**	$ 3,840
Infrastructure companies[4]	**2,468**	2,156	**3,035**	2,704
Timberland companies[5]	**811**	816	**811**	816
Real estate companies[6]	**676**	465	**676**	465
Total	**$ 7,745**	$ 7,277	**$ 8,312**	$ 7,825

(1) The Company's investments in these unconsolidated SEs are included in invested assets and the Company's returns from them are included in net investment income and OCI.

(2) The Company's maximum exposure to loss from each SE is limited to amounts invested in each, plus unfunded capital commitments, if any. The Company's investment commitments are disclosed in note 18. The maximum loss is expected to occur only upon the entity's bankruptcy/liquidation.

(3) These entities are statutory business trusts which use capital provided by the Company and senior debt provided by other parties to finance the acquisition of assets. These assets are leased to third-party lessees under long-term leases. The Company owns equity capital in these business trusts. The Company does not consolidate any of the trusts that are party to the lease arrangements because the Company does not have decision-making power over them.

(4) These entities invest in infrastructure assets. The Company invests in their equity. The Company's returns include investment income, investment management fees, and performance fees. The Company does not control these entities because it either does not have the power to govern their financial and operating policies or does not have significant variable returns from them, or both.

(5) These entities own and operate timberlands. The Company invests in their equity and debt. The Company's returns include investment income, investment advisory fees, forestry management fees and performance advisory fees. The Company does not control these entities because it either does not have the power to govern their financial and operating policies or does not have significant variable returns from them, or both.

(6) These entities, which include the Manulife U.S. REIT, own and manage commercial real estate. The Company invests in their equity. The Company's returns include investment income, investment management fees, property management fees, acquisition/disposition fees and leasing fees. The Company does not control these entities because it either does not have the power to govern their financial and operating policies or does not have significant variable returns from them, or both.

Financing SEs

The Company's interests in and maximum exposure to loss from significant unconsolidated financing SEs are as follows.

As at December 31,	Company's interests[1] 2023	2022
Manulife Finance (Delaware), L.P.[2]	**$ 712**	$ 694
Total	**$ 712**	$ 694

(1) The Company's interests include amounts borrowed from the SE; the Company's investment in its equity and subordinated capital; and foreign currency and interest rate swaps with it.

(2) This entity is a partially owned partnership used to facilitate the Company's financing. Refer to note 10.

(I) Other invested assets

The Company has investment relationships with a variety of other entities, which result from its direct investment in their debt and/or equity and which have been assessed for control. These other entities' investments include but are not limited to investments in power and infrastructure, energy, private equity, real estate and agriculture, organized as limited partnerships and limited liability companies. Most of these other entities are not sponsored by the Company. The Company's involvement with these other entities is not individually significant. As such, the Company neither provides summary financial data for these entities nor individually assesses whether they are SEs. The Company's maximum exposure to losses because of its involvement with these other entities is limited to its investment in them and amounts committed to be invested but not yet funded. The Company records its income from these entities in net investment income and AOCI. The Company does not provide guarantees to other parties against the risk of loss from these other entities.

(II) Interest in securitized assets

The Company invests in mortgage/asset-backed securities issued by securitization vehicles sponsored by other parties, including private issuers and government sponsored issuers, to generate investment income. The Company does not own a controlling financial interest in any of the issuers. These securitization vehicles are SEs based on their narrow scope of activities and highly leveraged capital structures. Investments in mortgage/asset-backed securities are reported on the Consolidated Statements of Financial Position as debt securities and private placements, and their fair value and carrying value are disclosed in note 4. The Company's maximum loss from these investments is limited to amounts invested.

Commercial mortgage-backed securities ("CMBS") are secured by commercial mortgages and residential mortgage backed securities ("RMBS") are secured by residential mortgages. Asset-backed securities ("ABS") may be secured by various underlying assets including credit card receivables, automobile loans and aviation leases. The mortgage/asset-backed securities that the Company invests in primarily originate in North America.

The following table presents investments in securitized holdings by the type and asset quality.

	2023				2022
As at December 31,	CMBS	RMBS	ABS	Total	Total
AAA	**$ 425**	**$ 4**	**$ 946**	**$ 1,375**	$ 1,770
AA	**-**	**-**	**227**	**227**	9
A	**-**	**3**	**435**	**438**	574
BBB	**-**	**-**	**107**	**107**	219
BB and below	**-**	**-**	**7**	**7**	3
Total exposure	**$ 425**	**$ 7**	**$ 1,722**	**$ 2,154**	$ 2,575

(III) Mutual funds

The Company sponsors and may invest in a range of public mutual funds with a broad range of investment styles. As sponsor, the Company organizes mutual funds that implement investment strategies on behalf of current and future investors. The Company earns fees which are at market rates for providing advisory and administrative services to these mutual funds. Generally, the Company does not control its sponsored mutual funds because either the Company does not have power to govern their financial and operating policies, or its returns in the form of fees and ownership interests are not significant, or both. Certain mutual funds are SEs because their decision-making rights are not vested in voting equity interests and their investors are provided with redemption rights.

The Company's relationships with these mutual funds are not individually significant. As such, the Company neither provides summary financial data for these mutual funds nor individually assesses whether they are SEs. The Company's interest in mutual funds is limited to its investment and fees earned, if any. The Company's investments in mutual funds are recorded as part of its investment in public equities within the Consolidated Statements of Financial Position. For information regarding the Company's invested assets, refer to note 4. The Company does not provide guarantees to other parties against the risk of loss from these mutual funds.

As sponsor, the Company's investment in ("seed") startup capital of mutual funds as at December 31, 2023 was $1,319 (2022 – $1,296). The Company's retail mutual fund assets under management as at December 31, 2023 were $277,365 (2022 – $258,273).

Note 18 Commitments and Contingencies

(a) Legal proceedings

The Company is regularly involved in legal actions, both as a defendant and as a plaintiff. The legal actions where the Company is a party ordinarily relate to its activities as a provider of insurance protection or wealth management products, reinsurance, or in its capacity as an investment adviser, employer, or taxpayer. Other life insurers and asset managers, operating in the jurisdictions in which the Company does business, have been subject to a wide variety of other types of actions, some of which resulted in substantial judgments or settlements against the defendants; it is possible that the Company may become involved in similar actions in the future. In addition, government and regulatory bodies in Canada, the United States, Asia and other jurisdictions where the Company conducts business regularly make inquiries and, from time to time, require the production of information or conduct examinations concerning the Company's compliance with, among other things, insurance laws, securities laws, and laws governing the activities of broker-dealers.

In June 2018, a class action was initiated against the Company in the U.S. District Court for the Southern District of New York on behalf of owners of Performance Universal Life ("Perf UL") policies issued between 2003 and 2010 whose policies were subject to a Cost of Insurance ("COI") increase announced in 2018.

In addition to the class action, twelve individual lawsuits opposing the Perf UL COI increases were filed; nine in federal court and three in state court. The Company has now resolved litigation with respect to 100% of the filed lawsuits, which represents 84% of the total face amount of policies in the COI-increase block. Litigation remains possible with the final approximately 16% of the total face amount of the COI-increase block.

Subsequent to the resolution of the Perf UL COI-increase lawsuits, in September 2023 an unrelated lawsuit was initiated against the Company in the U.S. District Court of the Southern District of New York as a putative class action on behalf of all current and former owners of universal life insurance policies issued by the Company "that state that cost of insurance rates will be based on future expectations that include taxes." The Plaintiff's theory is that the Company impermissibly failed to decrease the COI rates charged to these policy owners after the implementation of the Tax Cuts and Jobs Act of 2018. It is too early in the litigation to offer any reliable opinion about the scope of the class policies that may be at issue or the likely outcome.

(b) Investment commitments

In the normal course of business, various investment commitments are outstanding which are not reflected in the Consolidated Financial Statements. There were $15,117 (2022 – $14,193) of outstanding investment commitments as at December 31, 2023, of which $781 (2022 – $1,095) mature in 30 days, $4,627 (2022 – $3,359) mature in 31 to 365 days and $9,709 (2022 – $9,739) mature after one year.

(c) Letters of credit

In the normal course of business, third-party relationship banks issue letters of credit on the Company's behalf. The Company's businesses utilize letters of credit for which third parties are the beneficiaries, as well as for affiliate reinsurance transactions between its subsidiaries. As at December 31, 2023, letters of credit for which third parties are beneficiaries, in the amount of $466 (2022 – $215), were outstanding.

(d) Guarantees

JHUSA maintains a book of deferred annuity contracts that feature a market value adjustment. The deferred annuity contracts may contain variable investment options along with fixed investment period options or may offer only fixed investment period options. The fixed investment period options enable the participant to invest fixed amounts of money for fixed terms at fixed interest rates, subject to a market value adjustment if the participant desires to terminate a fixed investment period before its maturity date. These fixed investment period options that contain a market value adjustment feature are referred to as "MVAs". MFC fully and unconditionally guaranteed JHUSA's MVAs, both those outstanding and those to be issued subsequently.

JHUSA has sold medium-term notes to retail investors under its SignatureNotes program. MFC fully and unconditionally guaranteed JHUSA's outstanding SignatureNotes. MFC's guarantees of the MVAs and the SignatureNotes are unsecured obligations of MFC and are subordinated in right of payment to the prior payment in full of all other obligations of MFC, except for other guarantees or obligations of MFC which by their terms are designated as ranking equally in right of payment with or subordinate to MFC's guarantees of the MVAs and SignatureNotes.

(e) Pledged assets

In the normal course of business, the Company pledges its assets in respect of liabilities incurred, strictly for providing collateral to the counterparty. In the event of the Company's default, the counterparty is entitled to apply the collateral to settle the liability. The pledged assets are returned to the Company if the underlying transaction is terminated or, in the case of derivatives, if there is a decrease in the net exposure due to market value changes.

The amounts pledged are as follows.

	2023		2022	
As at December 31,	Debt securities	Other	Debt securities	Other
In respect of:				
Derivatives	**$ 10,431**	**$ 26**	$ 11,944	$ 23
Secured borrowings	**-**	**2,220**	-	2,241
Regulatory requirements	**307**	**74**	320	77
Repurchase agreements	**201**	**-**	886	-
Non-registered retirement plans in trust	**-**	**298**	-	326
Other	**-**	**283**	-	404
Total	**$ 10,939**	**$ 2,901**	$ 13,150	$ 3,071

(f) Participating business

In some markets where the Company maintains participating accounts, there are regulatory restrictions on the amounts of profit that can be transferred to shareholder. Where applicable, these restrictions generally take the form of a fixed percentage of policyholder dividends. For participating businesses operating as separate “closed blocks”, transfers are governed by the terms of MLI’s and John Hancock Mutual Life Insurance Company’s plans of demutualization.

(g) Fixed surplus notes

A third party contractually provides standby financing arrangements for the Company’s U.S. operations under which, in certain circumstances, funds may be provided in exchange for the issuance of fixed surplus notes. As at December 31, 2023 and 2022, the Company had no fixed surplus notes outstanding.

Note 19 Segmented Information

The Company’s reporting segments are Asia, Canada, U.S., Global WAM and Corporate and Other. Each reporting segment is responsible for managing its operating results, developing products, defining strategies for services and distribution based on the profile and needs of its business and market. The Company’s significant product and service offerings by the reporting segments are mentioned below.

Wealth and asset management businesses (Global WAM) – branded as Manulife Investment Management, provides investment advice and innovative solutions to retirement, retail, and institutional clients. Products and services are distributed through multiple distribution channels, including agents and brokers affiliated with the Company, independent securities brokerage firms and financial advisors pension plan consultants and banks.

Insurance and annuity products (Asia, Canada and U.S.) – include a variety of individual life insurance, individual and group long-term care insurance and guaranteed and partially guaranteed annuity products. Products are distributed through multiple distribution channels, including insurance agents, brokers, banks, financial planners and direct marketing. Manulife Bank of Canada offers a variety of deposit and credit products to Canadian customers.

Corporate and Other segment – comprised of investment performance of assets backing capital, net of amounts allocated to operating segments; costs incurred by the corporate office related to shareholder activities (not allocated to the operating segments); financing costs; Property and Casualty Reinsurance Business; and run-off reinsurance operations including variable annuities and accident and health. In addition, consolidations and eliminations of transactions between operating segments are also included.

Effective January 1, 2023, the Company has made a number of changes to the composition of reporting segments to better align its financial reporting with its business strategy and operations. The Company’s International High Net Worth business was reclassified from the U.S. segment to the Asia segment to reflect the contributions of the Company’s Bermuda operations alongside the high net worth business that is reported in the Company’s Singapore and Hong Kong operations. The Company’s investment in the startup capital of segregated and mutual funds and investment-related revenue and expense were reclassified from the Corporate and Other segment to the Global WAM segment to more closely align with Global WAM’s management practices. Refinements were made to the allocations of corporate overhead and interest on

surplus among segments. Prior period comparative information has been restated to reflect the changes in segment reporting.

(a) Reporting segments

The following tables present results by reporting segments.

For the year ended December 31, 2023	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total
Insurance service result						
Life, health and property and casualty insurance	$ 2,070	$ 995	$ 526	$ -	$ 236	$ 3,827
Annuities and pensions	(129)	198	81	-	-	150
Total insurance service result	1,941	1,193	607	-	236	3,977
Net investment income (loss)	7,057	5,048	5,236	(771)	1,479	18,049
Insurance finance income (expenses)						
Life, health and property and casualty insurance	(4,970)	(3,288)	(4,815)	-	723	(12,350)
Annuities and pensions	(1,466)	(27)	(51)	-	-	(1,544)
Total insurance finance income (expenses)	(6,436)	(3,315)	(4,866)	-	723	(13,894)
Reinsurance finance income (expenses)						
Life, health and property and casualty insurance	(106)	58	385	-	(697)	(360)
Annuities and pensions	1	(1)	(374)	-	-	(374)
Total reinsurance finance income (expenses)	(105)	57	11	-	(697)	(734)
Decrease (increase) in investment contract liabilities	(38)	(73)	(148)	(175)	(1)	(435)
Net segregated fund investment result	-	-	-	-	-	-
Total investment result	478	1,717	233	(946)	1,504	2,986
Other revenue	67	272	79	6,709	(391)	6,736
Other expenses	(231)	(569)	(153)	(4,252)	(416)	(5,621)
Interest expenses	(11)	(1,004)	(15)	(14)	(80)	(1,124)
Net income (loss) before income taxes	2,244	1,609	751	1,497	853	6,954
Income tax recoveries (expenses)	(440)	(373)	(112)	(198)	100	(1,023)
Net income (loss)	1,804	1,236	639	1,299	953	5,931
Less net income (loss) attributed to:						
Non-controlling interests	141	-	-	2	1	144
Participating policyholders	315	45	-	-	-	360
Net income (loss) attributed to shareholder	$ 1,348	$ 1,191	$ 639	$ 1,297	$ 952	$ 5,427
Total assets	$ 177,623	$ 157,111	$ 244,659	$ 257,764	$ 38,502	$ 875,659

For the year ended December 31, 2022	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total
Insurance service result						
Life, health and property and casualty insurance	$ 1,718	$ 928	$ 361	$ -	$ (117)	$ 2,890
Annuities and pensions	(164)	262	172	-	-	270
Total insurance service result	1,554	1,190	533	-	(117)	3,160
Net investment income (loss)	1,417	(930)	911	(1,082)	39	355
Insurance finance income (expenses)						
Life, health and property and casualty insurance	608	(723)	(5,058)	-	122	(5,051)
Annuities and pensions	(2,261)	504	191	1	-	(1,565)
Total insurance finance income (expenses)	(1,653)	(219)	(4,867)	1	122	(6,616)
Reinsurance finance income (expenses)						
Life, health and property and casualty insurance	(61)	(100)	994	-	(167)	666
Annuities and pensions	(3)	(2)	(352)	-	-	(357)
Total reinsurance finance income (expenses)	(64)	(102)	642	-	(167)	309
Decrease (increase) in investment contract liabilities	(70)	(49)	(179)	(119)	18	(399)
Net segregated fund investment result	-	-	-	-	-	-
Total investment result	(370)	(1,300)	(3,493)	(1,200)	12	(6,351)
Other revenue	56	262	101	6,391	(587)	6,223
Other expenses	(318)	(573)	(136)	(3,893)	(102)	(5,022)
Interest expenses	(12)	(548)	(16)	(7)	(96)	(679)
Net income (loss) before income taxes	910	(969)	(3,011)	1,291	(890)	(2,669)
Income tax recoveries (expenses)	(318)	510	695	(170)	265	982
Net income (loss)	592	(459)	(2,316)	1,121	(625)	(1,687)
Less net income (loss) attributed to:						
Non-controlling interests	120	-	-	-	1	121
Participating policyholders	(211)	44	-	-	-	(167)
Net income (loss) attributed to shareholder	$ 683	$ (503)	$ (2,316)	$ 1,121	$ (626)	$ (1,641)
Total assets	$ 164,605	$ 151,761	$ 244,904	$ 231,433	$ 41,018	$ 833,721

(b) Geographical location

The results of the Company's reporting segments differ from its results by geographical location primarily due to the allocation of Global WAM and Corporate and Other segments into the geographical location to which its businesses relate.

The following tables present results by geographical location.

For the year ended December 31, 2023	Asia	Canada	U.S.	Other	Total
Insurance service result					
Life, health and property and casualty insurance	**$ 2,087**	**$ 981**	**$ 511**	**$ 248**	**$ 3,827**
Annuities and pensions	**(128)**	**198**	**80**	**-**	**150**
Total insurance service result	**1,959**	**1,179**	**591**	**248**	**3,977**
Net investment income (loss)	**7,259**	**5,752**	**4,975**	**63**	**18,049**
Insurance finance income (expenses)					
Life, health and property and casualty insurance	**(4,971)**	**(2,606)**	**(4,793)**	**20**	**(12,350)**
Annuities and pensions	**(1,466)**	**(27)**	**(51)**	**-**	**(1,544)**
Total insurance finance income (expenses)	**(6,437)**	**(2,633)**	**(4,844)**	**20**	**(13,894)**
Reinsurance finance income (expenses)					
Life, health and property and casualty insurance	**(121)**	**(623)**	**384**	**-**	**(360)**
Annuities and pensions	**1**	**(1)**	**(374)**	**-**	**(374)**
Total reinsurance finance income (expenses)	**(120)**	**(624)**	**10**	**-**	**(734)**
Decrease (increase) in investment contract liabilities	**(220)**	**(130)**	**(79)**	**(6)**	**(435)**
Net segregated fund investment result	**-**	**-**	**-**	**-**	**-**
Total investment result	**$ 482**	**$ 2,365**	**$ 62**	**$ 77**	**$ 2,986**
Other revenue	**$ 1,332**	**$ 2,137**	**$ 3,239**	**$ 28**	**$ 6,736**

For the year ended December 31, 2022	Asia	Canada	U.S.	Other	Total
Insurance service result					
Life, health and property and casualty insurance	$ 1,873	$ 909	$ 208	$ (100)	$ 2,890
Annuities and pensions	(164)	262	172	-	270
Total insurance service result	1,709	1,171	380	(100)	3,160
Net investment income (loss)	1,264	(1,043)	(189)	323	355
Insurance finance income (expenses)					
Life, health and property and casualty insurance	607	(578)	(5,088)	8	(5,051)
Annuities and pensions	(2,261)	504	192	-	(1,565)
Total insurance finance income (expenses)	(1,654)	(74)	(4,896)	8	(6,616)
Reinsurance finance income (expenses)					
Life, health and property and casualty insurance	(74)	(254)	994	-	666
Annuities and pensions	(3)	(2)	(352)	-	(357)
Total reinsurance finance income (expenses)	(77)	(256)	642	-	309
Decrease (increase) in investment contract liabilities	(126)	(79)	(194)	-	(399)
Net segregated fund investment result	-	-	-	-	-
Total investment result	$ (593)	$ (1,452)	$ (4,637)	$ 331	$ (6,351)
Other revenue	$ 1,294	$ 2,081	$ 2,907	$ (59)	$ 6,223

Note 20 Related Party Transactions

The Company enters into transactions with related parties in the normal course of business and at terms that would exist in arm's-length transactions.

(a) Related party notes

The following table presents related party notes receivable and payable.

As at December 31,	Interest terms	Maturity date	2023 Carrying value	2023 Fair value[1]	2022 Carrying value	2022 Fair value[1]
Note receivable from MFC	Interest free	Demand	**$ 90**	**$ 90**	$ 86	$ 86
Note payable to MFC	Interest free	Demand	**163**	**163**	135	135

[1] Fair value has been determined using Level 2 measurements as defined in note 1.

(b) Related party capital instruments

As at December 31,	Interest terms	Maturity date	2023 Carrying value	2023 Fair value[1]	2022 Carrying value	2022 Fair value[1]
Payable to Manulife Finance (Delaware) LLC ("MFLLC")	90-day Bankers' Acceptance rate plus 0.72%, payable semi-annually[2]	December 15, 2036	**$ 647**	**$ 647**	$ 647	$ 620

[1] Fair value has been determined using Level 2 measurements as defined in note 1.

[2] The Company is monitoring regulatory and market developments globally with respect to the interest rate benchmark reform. As this rate will be discontinued at the end of June 2024, the Company will take appropriate actions in due course to accomplish the necessary transitions or replacements.

The cash amount of interest paid during the year ended December 31, 2023 related to related party capital instruments was $38 (2022 – $18).

(c) Other related party transactions

On December 28 and 29, 2023, MLI transferred to MFC $5,656 in cash as settlement of liabilities and dividends on common shares. On December 28 and 29, 2023, MFC transferred to MLI $5,664 in cash as settlement of liabilities. All transactions were accounted for at carrying value.

On December 29, 2022, MLI transferred to MFC $6,253 in cash as settlement of liabilities and dividends on common shares. On December 29, 2022, MFC transferred to MLI $6,240 in cash as settlement of liabilities. All transactions were accounted for at carrying value.

The Company owns and manages liquidity pools in which various entities from within the MFC consolidated group, including MLI subsidiaries and entities which are not MLI subsidiaries, invest excess cash. The liquidity pool structure allows the pooling of excess cash in a centralized location until such funds are needed by the contributing entities. The resulting economies of scale allow the Company and participating legal entities to earn improved returns on excess cash and reduce the need for any external short-term operational borrowing. Multiple liquidity pools are used due to varying regulatory considerations of different jurisdictions. Participation in the Company's liquidity pools is evidenced by demand promissory notes issued by the Company, bearing interest at rates based on the one-month Canadian Bankers' Acceptance rate, the Secured Overnight Financing Rate ("SOFR"), and at the one-month U.S. Treasury Bill rate. These rates are reset daily. The Canadian Dollar Offered Rate ("CDOR") is subject to the interest rate benchmark reform, and will be discontinued at the end of June 2024. The Company will switch to the Canadian Overnight Repo Rate ("CORRA") to replace CAD CDOR on the liquidity pool contributions. As at December 31, 2023, the interest rate benchmark reform has not resulted in significant changes in the Company's risk management strategy. As at December 31, 2023, the balance contributed to the liquidity pools from MFC entities outside the MLI consolidated group was $71 (2022 – $48) and the balance contributed by the Company to another MFC liquidity pool outside the MLI consolidated group was $130 (2022 – $133). These balances are netted against cash and short-term securities, in an aggregate amount totaling $(59) (2022 – $(85)).

In 2016, the Company entered into three foreign exchange swap contracts with MFC, maturing in 2026 and 2046. In 2017, the Company entered into a foreign exchange swap contract with MFC, maturing in 2024. In 2020, the Company entered into a foreign exchange swap contract with MFC, maturing in 2027. As at December 31, 2023, the swap contracts required the Company to pay US $2,720 (2022 – US $2,720) and to pay S$500 (2022 – S$500) and entitled it to receive $4,151 (2022 – $4,151). The US Dollar contracts were designated as net investment hedges. The Singapore Dollar contracts were not designated as net investment hedges. The fair value of these contracts as at December 31, 2023 was $131 (2022 – $(26)).

MLI received all of the issued and outstanding shares of certain MFC subsidiaries on a tax deferred basis from MFC on December 20, 2023 (2022 – December 29, 2022). These subsidiaries were then wound up into MLI on December 21, 2023 (2022 – December 30, 2022). Contributed surplus of $170 (2022 – $137) was recorded in MLI and/or its subsidiaries on the recognition of deferred income tax assets in respect of income tax losses for the year ended December 31, 2023.

As at December 31, 2023, the Company had payables to MFC of $5 (2022 – $13).

The Company has service agreements with MFC to receive and provide administrative services. In 2023, the Company paid $3 (2022 – $5) for net services received.

Compensation is provided to certain employees and directors of the Company in the form of MFC stock options, deferred share units and restricted share units. For the year ended December 31, 2023, the amounts charged to the Company by MFC representing the fair value under these plans totaled $256 (2022 – $186). Refer to note 14.

(d) Compensation of key management personnel

The Company's key management personnel are those personnel who have the authority and responsibility for planning, directing and controlling the activities of the Company. Directors (both executive and non-executive) and senior management are considered key management personnel. A summary of compensation of key management personnel is as follows.

For the years ended December 31,	**2023**	2022
Short-term employee benefits	**$ 83**	$ 73
Post-employment benefits	**6**	6
Share-based payments	**73**	73
Termination benefits	**3**	-
Other long-term benefits	**3**	3
Total	**$ 168**	$ 155

Note 21 Subsidiaries

The following is a list of Manulife's directly and indirectly held major operating subsidiaries.

As at December 31, 2023 (100% owned unless otherwise noted in brackets beside company name)	Equity interest	Address	Description
Manulife Holdings (Alberta) Limited	$ 18,489	Calgary, Canada	Holding company
John Hancock Financial Corporation		Boston, U.S.A.	Holding company
The Manufacturers Investment Corporation		Boston, U.S.A.	Holding company
John Hancock Reassurance Company Ltd.		Boston, U.S.A.	Captive insurance subsidiary that provides life, annuity and long-term care reinsurance to affiliates
John Hancock Life Insurance Company (U.S.A.)		Boston, U.S.A.	U.S. life insurance company licensed in all states, except New York
John Hancock Subsidiaries LLC		Boston, U.S.A.	Holding company
John Hancock Financial Network, Inc.		Boston, U.S.A.	Financial services distribution organization
John Hancock Investment Management LLC		Boston, U.S.A.	Investment advisor
John Hancock Investment Management Distributors LLC		Boston, U.S.A.	Broker-dealer
Manulife Investment Management (US) LLC		Boston, U.S.A.	Investment advisor
Manulife Investment Management Timberland and Agriculture Inc.		Boston, U.S.A.	Manager of globally diversified timberland and agricultural portfolios
John Hancock Life Insurance Company of New York		New York, U.S.A.	U.S. life insurance company licensed in New York
John Hancock Variable Trust Advisers LLC		Boston, U.S.A.	Investment advisor for open-end mutual funds
John Hancock Life & Health Insurance Company		Boston, U.S.A.	U.S. life insurance company licensed in all states
John Hancock Distributors LLC		Boston, U.S.A.	Broker-dealer
John Hancock Insurance Agency, Inc.		Boston, U.S.A.	Insurance agency
Manulife Reinsurance Limited		Hamilton, Bermuda	Provides life and financial reinsurance to affiliates
Manulife Reinsurance (Bermuda) Limited		Hamilton, Bermuda	Provides life and financial reinsurance to affiliates

As at December 31, 2023 (100% owned unless otherwise noted in brackets beside company name)	**Equity interest**	**Address**	**Description**
Manulife Bank of Canada	$ 1,793	Waterloo, Canada	Provides integrated banking products and service options not available from an insurance company
Manulife Investment Management Holdings (Canada) Inc.	$ 1,318	Toronto, Canada	Holding company
Manulife Investment Management Limited		Toronto, Canada	Provides investment counseling, portfolio and mutual fund management in Canada
First North American Insurance Company	$ 7	Toronto, Canada	Property and casualty insurance company
Manulife Securities Investment Services Inc.	$ 84	Oakville, Canada	Mutual fund dealer for Canadian operations
Manulife Holdings (Bermuda) Limited	$ 20,695	Hamilton, Bermuda	Holding company
Manufacturers P&C Limited		St. Michael, Barbados	Provides property and casualty reinsurance
Manulife Financial Asia Limited		Hong Kong, China	Holding company
Manulife (Cambodia) PLC		Phnom Penh, Cambodia	Life insurance company
Manulife Myanmar Life Insurance Company Limited		Yangon, Myanmar	Life insurance company
Manufacturers Life Reinsurance Limited		St. Michael, Barbados	Provides life and annuity reinsurance to affiliates
Manulife (Vietnam) Limited		Ho Chi Minh City, Vietnam	Life insurance company
Manulife Investment Fund Management (Vietnam) Company Limited		Ho Chi Minh City, Vietnam	Fund management company
Manulife International Holdings Limited		Hong Kong, China	Holding company
Manulife (International) Limited		Hong Kong, China	Life insurance company
Manulife-Sinochem Life Insurance Co. Ltd. (51%)		Shanghai, China	Life insurance company
Manulife Investment Management International Holdings Limited		Hong Kong, China	Holding company
Manulife Investment Management (Hong Kong) Limited		Hong Kong, China	Investment management and advisory company marketing mutual funds
Manulife Investment Management (Taiwan) Co., Ltd.		Taipei, Taiwan (China)	Investment management company
Manulife Life Insurance Company (Japan)		Tokyo, Japan	Life insurance company
Manulife Investment Management (Japan) Limited		Tokyo, Japan	Investment management and advisory company and mutual fund business

As at December 31, 2023 (100% owned unless otherwise noted in brackets beside company name)	Equity interest	Address	Description
Manulife Holdings Berhad (62.0%)		Kuala Lumpur, Malaysia	Holding company
Manulife Insurance Berhad (62.0%)		Kuala Lumpur, Malaysia	Life insurance company
Manulife Investment Management (Malaysia) Berhad (62.0%)		Kuala Lumpur, Malaysia	Asset management company
Manulife (Singapore) Pte. Ltd.		Singapore	Life insurance company
Manulife Investment Management (Singapore) Pte. Ltd.		Singapore	Asset management company
Manulife Fund Management Co., Ltd.		Beijing, China	Mutual fund company in China
The Manufacturers Life Insurance Co. (Phils.), Inc.		Makati City, Philippines	Life insurance company
Manulife Chinabank Life Assurance Corporation (60%)		Makati City, Philippines	Life insurance company
PT Asuransi Jiwa Manulife Indonesia		Jakarta, Indonesia	Life insurance company
PT Manulife Aset Manajemen Indonesia		Jakarta, Indonesia	Investment management and investment advisor
Manulife Investment Management (Europe) Limited	$ 42	London, England	Investment management company providing advisory services for Manulife Investment Management's funds, internationally
Manulife Assurance Company of Canada	$ 66	Toronto, Canada	Life insurance company
EIS Services (Bermuda) Limited	$ 1,028	Hamilton, Bermuda	Investment holding company
Berkshire Insurance Services Inc.	$ 1,968	Toronto, Canada	Investment holding company
JH Investments (Delaware) LLC		Boston, U.S.A.	Investment holding company
Manulife Securities Incorporated	$ 213	Oakville, Canada	Investment dealer
Manulife Investment Management (North America) Limited	$ 4	Toronto, Canada	Investment advisor

Note 22 Segregated Funds

The Company manages a number of segregated funds on behalf of policyholders. Policyholders are provided with the opportunity to invest in different categories of segregated funds that hold a range of underlying investments. The underlying investments consist of both individual securities and mutual funds.

Segregated funds underlying investments may be exposed to a variety of financial and other risks. These risks are primarily mitigated by investment guidelines that are actively monitored by professional and experienced portfolio advisors. The Company is not exposed to these risks beyond the liabilities related to the guarantees associated with certain variable life and annuity products included in segregated funds. Accordingly, the Company's exposure to loss from segregated fund products is limited to the value of these guarantees.

These guarantees are recorded within the Company's insurance contract liabilities and amount to $2,675 (2022 – $3,496), of which $980 are reinsured (2022 – $1,249). Assets supporting these guarantees, net of reinsurance, are recognized in invested assets according to their investment type. Insurance contract liabilities for account of segregated fund holders on the Consolidated Statements of Financial Position exclude these guarantees and are considered to be a non-distinct investment component of insurance contract liabilities. Note 9 provides information regarding market risk sensitivities associated with variable annuity and segregated fund guarantees.

Note 23 Adoption of IFRS 17

IFRS 17 Transition

The Company is required to prepare an opening balance sheet as at January 1, 2022, the date of transition to IFRS 17, which forms the starting point for its financial reporting in accordance with IFRS 17. Any differences between the carrying value and the presentation of assets, liabilities and equity determined in accordance with CALM and IFRS 17, as at January 1, 2022, were recorded in opening retained earnings and accumulated other comprehensive income.

On the transition date, January 1, 2022, the Company:

- Identified, recognized, and measured each group of contracts as if IFRS 17 had always applied, unless it was impracticable (see Full Retrospective Approach and Fair Value Approach below);
- Identified, recognized, and measured assets for insurance acquisition cash flows as if IFRS 17 had always applied, unless it was impracticable. However, no recoverability assessment was performed before the transition date;
- Derecognized any balances that would not exist had IFRS 17 always applied;
- Measured own use real estate properties that were underlying items of insurance contracts with direct participation features at fair value; and
- Recognized any resulting net difference in equity.

Full Retrospective Approach

The Company has adopted IFRS 17 retrospectively unless the full retrospective approach was deemed impracticable. The Company has applied the full retrospective approach to most contracts issued on or after January 1, 2021, except for participating insurance contracts and variable annuity contracts for which the fair value approach was used.

Fair Value Approach

The Company has applied the fair value approach to all insurance contracts issued prior to January 1, 2021, as obtaining reasonable and supportable information to apply the full retrospective approach was deemed impracticable.

IFRS 17 allows the use of the fair value approach for groups of insurance contracts with direct participation features if the risk mitigation option is applied prospectively from the transition date and the Company used derivatives, reinsurance contracts held, or non-derivative financial instruments held at FVTPL to mitigate financial risk on these groups of contracts. With these conditions met, the Company has elected to apply the fair value approach to participating insurance contracts and variable annuity contracts issued on or after January 1, 2021.

Under the fair value approach, the Company has determined the CSM of the GMM and VFA liabilities for remaining coverage at the transition date as the difference between the fair value of the groups of insurance contracts and the fulfilment cash flows measured at that date. In determining the fair value, the Company has applied the requirements of IFRS 13 "Fair Value Measurement", except for the demand deposit floor requirement. The Company used the income approach to determine the fair value of the insurance contracts at the transition date, in which future cash flows are discounted to a single amount that reflects current market expectations about those future amounts.

To determine groups of insurance contracts under the fair value approach the Company has aggregated contracts issued more than one year apart as it did not have reasonable and supportable information to divide groups into those including only contracts issued within one year or less.

For the application of the fair value approach, the Company has used reasonable and supportable information available at the transition date in order to:

- Identify groups of insurance contracts;
- Determine whether an insurance contract meets the definition of an insurance contract with direct participation features;
- Identify discretionary cash flows for insurance contracts without direct participation features; and
- Determine whether an investment contract meets the definition of an investment contract with discretionary participation features.

For insurance contracts where the fair value approach was applied, the discount rate used to determine the fair value of the group of insurance contracts was determined at the transition date. For cash flows of insurance contracts that do not vary based on the returns on underlying items, the Company determines discount rates by adjusting a liquid risk-free yield curve to reflect the differences between the liquidity characteristics of the financial instruments that underlie the rates observed in the market and the liquidity characteristics of the insurance contracts (a bottom-up approach).

Other Comprehensive Income at Transition

Under IFRS 17 changes in the carrying amount of insurance contracts arising from the effect of and changes in the time value of money and in financial risk are presented as insurance finance income or expense (except for some changes for insurance contracts with direct participation features under certain circumstances). Under IFRS 17 the Company has the option to present all insurance finance income or expense in profit or loss or disaggregated between profit or loss and OCI (the "OCI option"). The Company has elected the OCI option and determined the cumulative OCI balance at transition as follows:

- For some GMM and PAA groups of contracts where the fair value approach was applied, the cumulative OCI was set retrospectively only if reasonable and supportable information was available, otherwise it was set to zero at the transition date.
- For GMM groups of contracts where the full retrospective approach was applied, the cumulative balance was calculated as if the Company had been applying the OCI option since inception of the contracts.
- For VFA contracts, the cumulative OCI at transition was set equal to the difference between the market value and carrying value of the underlying items.

Reclassification of Financial Assets for the Comparative Period of IFRS 17 Adoption

Under the amendments to IFRS 17 with regard to the "Initial Application of IFRS 17 and IFRS 9 – Comparative Information" ("IFRS 17 amendments"), the Company has elected the option to reclassify financial assets, including those held in respect of activities not connected to contracts within the scope of IFRS 17, on an instrument-by-instrument basis, for the comparative period in alignment with the expected classification on initial application of IFRS 9 as at January 1, 2023. These reclassification changes also led the Company to present certain investment results previously reported in net investment income or OCI under IAS 39, within OCI or net investment income in alignment with the expected classifications of IFRS 9, respectively.

The following table presents invested assets by type and measurement category as at December 31, 2021, with transitional measurement differences and presentation differences and then invested assets by type and category as at January 1, 2022.

	December 31, 2021		Impact of IFRS 17 amendments		January 1, 2022	
	IAS 39 Measurement category	Total carrying value	Measurement differences	Presentation differences	Total carrying value	Measurement category
Cash and short-term securities	AFS	$ 13,894	$ -	$ 2,214	$ 16,108	FVOCI[1]
	FVTPL	2,214	-	(2,214)	-	FVTPL[2]
	Amortized cost	6,400	-	-	6,400	Amortized cost[3]
		22,508	-	-	22,508	
Debt securities	AFS	33,097	-	184,365	217,462	FVOCI[1]
	FVTPL	189,722	-	(184,365)	5,357	FVTPL[2]
	Amortized cost	1,320	-	-	1,320	Amortized cost[3]
		224,139	-	-	224,139	
Public equities	AFS	2,351	-	(2,351)	-	
	FVTPL	25,716	-	2,351	28,067	FVTPL[2]
		28,067	-	-	28,067	
Mortgages	AFS	-	1,897	29,901	31,798	FVOCI[1]
	FVTPL	-	37	1,166	1,203	FVTPL[2]
	Amortized cost	52,014	-	(31,067)	20,947	Amortized cost[3]
		52,014	1,934	-	53,948	
Private placements	AFS	-	4,407	42,175	46,582	FVOCI[1]
	FVTPL	-	40	667	707	FVTPL[2]
	Amortized cost	42,842	-	(42,842)	-	Amortized cost[3]
		42,842	4,447	-	47,289	
Policy loans	Amortized cost	6,397	-	(6,397)	-	N/A[4]
Loans to Bank clients	Amortized cost	2,506	-	-	2,506	Amortized cost[3]
Other invested assets	AFS	89	(4)	238	323	FVOCI[1]
	FVTPL	21,157	(10)	617	21,764	FVTPL[2]
	Amortized cost	855	-	(855)	-	Amortized cost[3]
		22,101	(14)	-	22,087	
Total in-scope invested assets		400,574	6,367	(6,397)	400,544	
Out-of-scope invested assets[5]	Other	26,436	1,035	-	27,471	Other[5]
Total Invested Assets		$ 427,010	$ 7,402	$ (6,397)	$ 428,015	

(1) The reclassification of unrealized gains (losses), net of tax, of $11,868 from retained earnings to accumulated other comprehensive income (AOCI) related to FVOCI classification of debt investments classified as FVTPL under IAS 39.

(2) The reclassification of unrealized gains (losses), net of tax, of $268 from AOCI to retained earnings related to FVTPL classification of debt securities classified as FVOCI under IAS 39.

(3) The re-measurement of debt securities from amortized cost to FVOCI or FVTPL resulted in an increase in carrying value of $6,367. The impact on AOCI and retained earnings, net of tax, was $5,041 and $952, respectively.

(4) Policy loans were reclassified from invested assets to insurance contract liabilities under IFRS 17 with no re-measurement and no impact to equity.

(5) Own use real estate properties which are underlying items for insurance contracts with direct participating features were remeasured to fair value as if they were investment properties, as permitted by IFRS 17. This re-measurement resulted in an increase of carrying value of $1,035. The impact to retained earnings, net of tax, was $915.

The Company has elected to apply the impairment requirements of IAS 39 (incurred losses) for the comparative period as provided for under IFRS 17. Accordingly, for assets that were classified as FVTPL under IAS 39, where no impairment was required, but were reclassified to FVOCI or amortized cost under IFRS 9 for the comparative period, the Company did not measure any impairment for the comparative period since IAS 39 impairment was not calculated.

Opening balance sheet under IFRS 17 “Insurance Contracts” including classification and measurement changes of financial assets

Effects from applying IFRS 17 resulted in a reduction of total equity of $11,997, net of tax, as at January 1, 2022. The opening IFRS 17 balance sheet and related adjustments as at January 1, 2022 are presented below:

	IFRS 4 & IAS 39	Opening IFRS balance sheet adjustments			IFRS 17 & IAS 39
		Measurement differences			
	December 31, 2021	Transition CSM	Contract measurement	Presentation differences	January 1, 2022
Assets					
Total invested assets	$ 427,010	$ -	$ 7,402	$ (6,397)	$ 428,015
Total other assets	91,412	2,877	5,617	1,078	100,984
Segregated funds net assets	399,788	-	-	-	399,788
Total assets	$ 918,210	$ 2,877	$ 13,019	$ (5,319)	$ 928,787
Liabilities and Equity					
Insurance contract liabilities, excluding those for account of segregated fund holders	$ 392,275	$ 21,466[1]	$ 10,014	$ (18,134)	$ 405,621
Investment contract liabilities	3,116	-	-	6,948	10,064
Other liabilities	53,963	(2,823)	(784)	5,867	56,223
Insurance contract liabilities for account of segregated fund holders	-	-	-	130,836	130,836
Investment contract liabilities for account of segregated fund holders	-	-	-	268,952	268,952
Segregated funds net liabilities	399,788	-	-	(399,788)	-
Total liabilities	849,142	18,643	9,230	(5,319)	871,696
Equity					
Shareholder's retained earnings	16,773	(13,607)	(229)	-	2,937
Shareholder's accumulated other comprehensive income (loss)					
Insurance finance income (expenses)	-	-	(17,117)	-	(17,117)
Reinsurance finance income (expenses)	-	-	984	-	984
FVOCI investments	840	-	16,916	-	17,756
Other equity items	50,994	-	-	-	50,994
Total shareholder's equity	68,607	(13,607)	554	-	55,554
Participating policyholders’ equity	(1,233)	(1,440)[1]	2,774	-	101
Non-controlling interests	1,694	(719)[1]	461	-	1,436
Total equity	69,068	(15,766)	3,789	-	57,091
Total liabilities and equity	$ 918,210	$ 2,877	$ 13,019	$ (5,319)	$ 928,787

(1) The post-tax CSM in the participating policyholders’ fund of $1.4 billion is expected to be recognized in shareholder net income over time. In addition, $0.7 billion of post-tax CSM is attributable to non-controlling interests.

The following table shows the nature and amount of the measurement adjustments made to the opening balance sheet:

Measurement Differences	Description
Transition CSM	Contractual Service Margin (CSM) is a new liability that represents future unearned profits on insurance contracts written. For this measurement step, the amount recognized as at the transition date, January 1, 2022, was $21,466. The impact on equity was $15,766, net of tax.
Contract Measurement	Under IFRS 17 other components of insurance contracts, aside from the CSM, are also remeasured. This measurement step includes the following changes: **Risk Adjustment (+2.1 billion to equity)[1]:** Changes to the provisions held within the Company’s insurance liabilities for non-economic risk on application of the IFRS 17 standard; **Discount Rates (-1.5 billion to equity)[1]:** Changes in the economic assumptions used in the determination of the Company’s insurance liabilities from the IFRS 4 CALM framework to IFRS 17, and changes in the carrying value of the Company’s assets backing insurance liabilities under IFRS 9; **Other Revaluation Changes (+3.1 billion to equity):** Includes other changes in equity created by the application of IFRS 17. This includes changes to accounting for contract classifications, variable annuity guarantee contracts, and contract boundaries which increases the capitalization of future profits into the CSM, changes to the provisions for future taxes, and other changes related to the application of IFRS 17.
Participating and Non-Controlling Interest Equity	In previous steps all impacts to equity were shown in shareholder’s equity. This step shows the geography of the impacts between shareholder’s equity, participating policyholders’ equity and non-controlling interests.

(1) Excluding impacts on variable annuity guarantee contracts.

The presentation differences are mainly comprised of the following:

- **Policy loans invested assets** – Reclassified to insurance contract liabilities as they are insurance contract related.
- **Contract classification** – Some contracts were reclassified from insurance contracts to investment contracts or service contracts, with some contracts reclassified from investment contracts to insurance contracts. The amount

shown in presentation differences in the table above relates to where they appear in the opening balance sheet. Any changes to these contracts' measurement value are shown in the contract measurement step.

- **Insurance receivables & payables –** These amounts were previously reported either as separate line items in the financial statements or recorded in miscellaneous assets and liabilities. These amounts have been reclassified to insurance contract liabilities as they are insurance contract related.
- **Embedded derivatives –** These amounts were previously reported in miscellaneous assets and have been reclassified to insurance contract liabilities as they are insurance contract related.
- **Reinsurance funds withheld –** These amounts were previously reported in other liabilities and have been reclassified to reinsurance contract assets as they are reinsurance contract related.
- **Deferred acquisition cost –** These were previously reported in miscellaneous assets and have been reclassified to insurance contract liabilities as they are insurance contract related.
- **Insurance and investment contract liabilities for account of segregated fund holders –** Segregated fund net liabilities were previously reported together, and have been separated into insurance contract liabilities for account of segregated fund holders (those associated with insurance contracts) and investment contract liabilities for account of segregated fund holders (those associated with investment contracts).

Note 24 Comparatives

Certain comparative amounts have been reclassified to conform to the current year's presentation.

As disclosed in note 2 Accounting and Reporting Changes and note 23 Adoption of IFRS 17, comparative amounts have been prepared and presented in accordance with IFRS 9 and IFRS 17. Refer to notes 2 and 23 for adoption impacts of IFRS 9 and IFRS 17.