



Manulife Financial Corporation

Management's Discussion and Analysis

For the three and nine months ended September 30, 2022

MANAGEMENT'S DISCUSSION AND ANALYSIS

This Management's Discussion and Analysis ("MD&A") is current as of November 9, 2022, unless otherwise noted. This MD&A should be read in conjunction with our unaudited Interim Consolidated Financial Statements for the three and nine months ended September 30, 2022 and the MD&A and audited Consolidated Financial Statements contained in our 2021 Annual Report.

For further information relating to our risk management practices and risk factors affecting the Company, see "Risk Management and Risk Factors" and "Critical Actuarial and Accounting Policies" in the MD&A in our 2021 Annual Report and the "Risk Management" note to the Consolidated Financial Statements in our most recent annual and interim reports.

In this MD&A, the terms "Company", "Manulife", "we" and "our" mean Manulife Financial Corporation ("MFC") and its subsidiaries. All amounts are reported in Canadian dollars, unless otherwise indicated. Any information contained in, or otherwise accessible through, websites mentioned in this MD&A does not form a part of this document.

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A TOTAL COMPANY PERFORMANCE

A1 Profitability

(\$ millions, unless otherwise stated)	Quarterly Results			YTD Results	
	3Q22	2Q22	3Q21	2022	2021
Net income attributed to shareholders	\$ 1,347	\$ 1,086	\$ 1,592	\$ 5,403	\$ 5,021
Core earnings ⁽¹⁾	\$ 1,322	\$ 1,562	\$ 1,517	\$ 4,436	\$ 4,828
Diluted earnings per common share (\$)	\$ 0.68	\$ 0.53	\$ 0.80	\$ 2.72	\$ 2.51
Diluted core earnings per common share ("core EPS") (\$) ⁽²⁾	\$ 0.67	\$ 0.78	\$ 0.76	\$ 2.22	\$ 2.41
Return on common shareholders' equity ("ROE")	10.5%	8.3%	12.6%	14.0%	13.7%
Core ROE ⁽²⁾	10.3%	12.1%	12.0%	11.4%	13.2%
Expense efficiency ratio ⁽²⁾	53.9%	49.2%	51.3%	51.0%	48.9%
General expenses	\$ 1,900	\$ 1,843	\$ 1,904	\$ 5,641	\$ 5,828

⁽¹⁾ This item is a non-GAAP financial measure. See "Non-GAAP and other financial measures" below for more information.

⁽²⁾ This item is a non-GAAP ratio. See "Non-GAAP and other financial measures" below for more information.

Quarterly profitability

Manulife's net income attributed to shareholders was \$1,347 million in the third quarter of 2022 ("3Q22") compared with \$1,592 million in the third quarter of 2021 ("3Q21"). Net income attributed to shareholders is comprised of core earnings (consisting of items we believe reflect the underlying earnings capacity of the business), which amounted to \$1,322 million in 3Q22 compared with \$1,517 million in 3Q21, and items excluded from core earnings, which amounted to a net gain of \$25 million in 3Q22 compared with a net gain of \$75 million in 3Q21. The effective tax rate on net income attributed to shareholders in 3Q22 was 19% compared with 10% in 3Q21, reflecting differences in the jurisdictional mix of pre-tax profits and losses.

Net income attributed to shareholders decreased \$245 million compared with 3Q21 primarily driven by lower gains from investment-related experience and lower core earnings, partially offset by a smaller charge from the direct impact of markets. The direct impact of markets in 3Q21 included a \$0.5 billion charge related to the impact of updated Ultimate Reinvestment Rate ("URR") assumptions issued by the Canadian Actuarial Standards Board. Investment-related experience in 3Q22 reflected the favourable impact of fixed income reinvestment activities and favourable credit experience, partially offset by lower-than-expected returns (including fair value changes) on alternative long-duration assets ("ALDA") primarily related to real estate. The charge from the direct impact of markets in 3Q22 was primarily driven by the impact of unfavourable equity market performance, losses from the sale of available-for-sale ("AFS") bonds and swap spread movements, partially offset by gains due to rising interest rates in the U.S., a flattening of the yield curve in Canada, and widening corporate spreads in the U.S.

Core earnings decreased \$195 million or 14% on a constant exchange rate basis¹ compared with 3Q21. The decrease in core earnings was driven by a \$256 million charge in our Property and Casualty ("P&C") Reinsurance business for estimated losses related to Hurricane Ian (compared with a \$152 million charge in 3Q21 for estimated losses related to Hurricane Ida and the European floods), a net charge of \$53 million in 3Q22 in Corporate and Other from the unfavourable impact of markets on seed money investments in new segregated funds and mutual funds and sales of AFS equities compared with a \$41 million year-to-date net gain, lower new business gains in Asia and the U.S., lower U.S. Annuities in-force earnings of \$51 million due to the variable annuity reinsurance transaction that closed in the first quarter of 2022 ("1Q22"), and a higher charge from net unfavourable U.S. policyholder experience. These items were partially offset by higher yields on fixed income investments and lower expenses in Corporate and Other, and in-force business growth in Asia and Canada. Lower expenses in Corporate and Other reflect lower supplemental pension expense primarily due to market impacts and lower variable incentive compensation. In 3Q22, core earnings included a net charge of \$104 million (\$125 million pre-tax) related to insurance and annuity policyholder experience compared with a net charge of \$50 million (\$53

¹ Percentage growth / declines in core earnings, core general expenses, pre-tax core earnings, assets under management and administration, assets under management, core EBITDA, general expenses, Manulife Bank average net lending assets and Global Wealth and Asset Management ("Global WAM") revenue are stated on a constant exchange rate basis, a non-GAAP ratio. See "Non-GAAP and other financial measures" below for more information.

million pre-tax) in 3Q21.¹ Actions to improve the capital efficiency of our legacy business resulted in \$51 million lower core earnings in 3Q22 compared with 3Q21. Excluding these actions, in-force business increased 5%² compared with 3Q21.

The components of the items excluded from core earnings are outlined in the table below and the annual review of actuarial methods and assumptions is discussed in section D2 “Actuarial methods and assumptions” below.

Year-to-date profitability

Net income attributed to shareholders for the nine months ended September 30, 2022 was \$5,403 million compared with \$5,021 million for the nine months ended September 30, 2021. Year-to-date core earnings amounted to \$4,436 million in 2022 compared with \$4,828 million in the same period of 2021, and items excluded from year-to-date core earnings amounted to a net gain of \$967 million in 2022 compared with a net gain of \$193 million in the same period of 2021. The effective tax rate on year-to-date net income attributed to shareholders was 19% in 2022 compared with 13% for the same period in 2021, reflecting differences in the jurisdictional mix of pre-tax profits and losses.

The increase of \$382 million in year-to-date net income attributed to shareholders in 2022 compared with 2021 reflects a decline in year-to-date core earnings of \$392 million and a net gain of \$967 million in items excluded from year-to-date core earnings in 2022 compared with a net gain in items excluded from year-to-date core earnings of \$193 million in 2021.

The \$392 million or 9% decrease in year-to-date core earnings compared with the same period of 2021 was driven by a year-to-date net charge of \$153 million in 2022 in Corporate and Other from the unfavourable impact of markets on seed money investments in new segregated funds and mutual funds and sales of AFS equities compared with a \$145 million year-to-date net gain in 2021, lower new business gains in Asia and the U.S., lower in-force earnings in U.S. Annuities of \$136 million due to the 1Q22 variable annuity reinsurance transaction, a \$256 million charge in our P&C Reinsurance business in 3Q22 for estimated losses related to Hurricane Ian (compared with a \$152 million charge in 3Q21 for estimated losses related to Hurricane Ida and the European floods), and lower net fee income from lower average assets under management and administration (“average AUMA”)³ and lower fee spread in Global Wealth and Asset Management (“Global WAM”). These items were partially offset by higher yields on fixed income investments and lower expenses in Corporate and Other, higher in-force business growth in Asia and Canada, and higher net experience gains in Canada. Lower expenses in Corporate and Other reflect lower supplemental pension expense primarily due to market impacts and lower variable incentive compensation. Year-to-date, the net insurance and annuity policyholder experience charge was \$70 million (\$70 million pre-tax) in 2022 compared with a charge of \$13 million (\$7 million pre-tax) in the same period of 2021.¹ Actions to improve the capital efficiency of our legacy businesses resulted in \$136 million lower year-to-date core earnings in 2022 compared with 2021. Excluding these actions, in-force business increased 6%² compared with 2021.

On a year-to-date basis, the items excluded from core earnings were a net gain of \$967 million in 2022 consisting primarily of a net gain from investment-related experience and a \$811 million after-tax net gain related to the U.S. variable annuity reinsurance transaction partially offset by a net charge from the direct impact of markets.

¹ Policyholder experience includes quarterly gains of nil post-tax in 3Q22 (3Q21 – gains of \$5 million post-tax) and year-to-date gains of \$20 million in 2022 (2021 – gains of \$24 million post-tax) from the release of margins on medical policies in Hong Kong that have lapsed for customers who have opted to change their existing policies to the new Voluntary Health Insurance Scheme (“VHIS”) products. These gains did not have a material impact on core earnings as they were mostly offset by new business strain.

² Excludes \$65 million (pre-tax) and \$173 million (pre-tax) in 3Q22 and year-to-date 2022, respectively, of lost expected profit on in-force relating to the U.S. variable annuity reinsurance transaction that closed in 1Q22. Percentage growth is based on the pre-tax impact of these actions, and is stated on a constant exchange rate basis.

³ For more information on this metric, see “Non-GAAP and other financial measures” below.

Core earnings by segment is presented in the table below.

Core earnings by segment (\$ millions, unaudited)	Quarterly Results			YTD Results	
	3Q22	2Q22	3Q21	2022	2021
Asia	\$ 513	\$ 513	\$ 533	\$ 1,563	\$ 1,629
Canada	350	345	311	1,009	893
U.S.	384	456	490	1,326	1,469
Global Wealth and Asset Management	345	305	351	974	1,019
Corporate and Other (excluding core investment gains)	(370)	(157)	(268)	(736)	(482)
Core investment gains ^{(1),(2)}	100	100	100	300	300
Total core earnings	\$ 1,322	\$ 1,562	\$ 1,517	\$ 4,436	\$ 4,828

⁽¹⁾ This item is disclosed under the Office of the Superintendent of Financial Institution's ("OSFI's") Source of Earnings Disclosure (Life Insurance Companies) guideline.

⁽²⁾ As outlined in our definition of core earnings in section E3 "Non-GAAP and other financial measures": Up to \$400 million of net favourable investment-related experience will be reported in core earnings in a single year, which are referred to as "core investment gains". This means up to \$100 million in the first quarter, up to \$200 million on a year-to-date basis in the second quarter, up to \$300 million on a year-to-date basis in the third quarter and up to \$400 million on a full year basis in the fourth quarter. Any investment-related experience losses reported in a quarter will be offset against the net year-to-date investment-related experience gains with the difference being included in core earnings subject to a maximum of the year-to-date core investment gains and a minimum of zero, which reflects our expectation that investment-related experience will be positive through-the-business cycle.

The table below presents net income attributed to shareholders consisting of core earnings and items excluded from core earnings.

(\$ millions, unaudited)	Quarterly Results			YTD Results	
	3Q22	2Q22	3Q21	2022	2021
Core earnings	\$ 1,322	\$ 1,562	\$ 1,517	\$ 4,436	\$ 4,828
Items excluded from core earnings:⁽¹⁾					
Investment-related experience outside of core earnings ⁽²⁾	125	591	700	1,274	1,516
Direct impact of equity markets and interest rates and variable annuity guarantee liabilities ⁽³⁾	(54)	(1,067)	(597)	(1,024)	(1,215)
<i>Direct impact of equity markets and variable annuity guarantee liabilities</i>	(371)	(623)	(15)	(1,104)	165
<i>Fixed income reinvestment rates assumed in the valuation of policy liabilities</i>	460	(365)	(44)	446	(800)
<i>Sale of AFS bonds and derivative positions in the Corporate and Other segment</i>	(143)	(79)	(6)	(366)	(48)
<i>Changes to the ultimate reinvestment rate</i>	-	-	(532)	-	(532)
Change in actuarial methods and assumptions ⁽⁴⁾	36	-	(41)	36	(41)
Restructuring charge ⁽⁵⁾	-	-	-	-	(115)
Reinsurance transactions, tax-related items and other ⁽⁶⁾	(82)	-	13	681	48
Total items excluded from core earnings	25	(476)	75	967	193
Net income attributed to shareholders	\$ 1,347	\$ 1,086	\$ 1,592	\$ 5,403	\$ 5,021

⁽¹⁾ These items are disclosed under OSFI's Source of Earnings Disclosure (Life Insurance Companies) guideline.

⁽²⁾ Total investment-related experience in 3Q22 was a net gain of \$225 million, compared with a net gain of \$800 million in 3Q21, and in accordance with our definition of core earnings, we included \$100 million of investment-related experience gains in core earnings and a \$125 million gain in items excluded from core earnings in 3Q22 (\$100 million of core investment gains and a gain of \$700 million, respectively, in 3Q21). Investment-related experience gains in 3Q22 reflected the favourable impact of fixed income reinvestment activities and favourable credit experience, partially offset by lower-than-expected returns (including fair value changes) on ALDA primarily related to real estate. Investment-related experience gains in 3Q21 reflected higher-than-expected returns (including fair value changes) on ALDA primarily driven by fair value gains on private equity investments, the favourable impact of fixed income reinvestment activities and favourable credit experience.

⁽³⁾ The direct impact of markets was a net charge of \$54 million in 3Q22 primarily driven by the impact of unfavourable equity market performance, losses from the sale of AFS bonds and swap spread movements, partially offset by gains due to rising interest rates in the U.S., a flattening of the yield curve in Canada and widening corporate spreads in the U.S. The direct impact of markets was a net charge of \$597 million in 3Q21 and included a \$532 million charge related to changes to the URR. In June 2021, the Canadian Actuarial Standards Board issued a new promulgation with reductions to the URR and updates to the calibration criteria for stochastic risk-free rates. The updated standard included a reduction of 15 basis points in the URR and a corresponding change to stochastic risk-free rate modeling and was effective October 15, 2021. The long-term URR for risk-free rates in Canada is prescribed at 2.9% and we use the same assumption for the U.S. Our assumption for Japan is 1.5%. The net charges for fixed income reinvestment rates reflected the steepening of the yield curve in Canada and lower interest rates in China, partially offset by widening corporate and swap spreads in the U.S.

⁽⁴⁾ Refer to section D2 "Actuarial methods and assumptions" below for detail.

⁽⁵⁾ In the first quarter of 2021 ("1Q21"), we reported a restructuring charge of \$150 million pre-tax (\$115 million post-tax) related to actions that are expected to result in recurring total annual expense savings of \$250 million (pre-tax) by 2023; \$100 million (pre-tax) of these expected total annual savings were realized in 2021, and \$200 million (pre-tax) of total annual savings are expected in 2022.¹

⁽⁶⁾ The 3Q22 charge of \$82 million primarily includes a \$31 million and \$17 million charge related to reinsurance transactions in U.S. variable annuities and Asia, respectively, and a \$13 million increase to an existing legal provision in the U.S. In 3Q21, reinsurance transactions in Asia contributed gains of \$13 million.

¹ See "Caution regarding forward-looking statements" below.

Net income attributed to shareholders by segment is presented in the following table.

Net income attributed to shareholders by segment (\$ millions, unaudited)	Quarterly Results			YTD Results	
	3Q22	2Q22	3Q21	2022	2021
Asia	\$ 521	\$ 361	\$ 822	\$ 1,655	\$ 2,412
Canada	578	85	(26)	1,210	738
U.S.	641	832	697	3,540	1,586
Global Wealth and Asset Management	345	305	351	974	1,019
Corporate and Other	(738)	(497)	(252)	(1,976)	(734)
Total net income attributed to shareholders	\$ 1,347	\$ 1,086	\$ 1,592	\$ 5,403	\$ 5,021

The **expense efficiency ratio** was 53.9% for 3Q22, compared with 51.3% in 3Q21. The 2.6 percentage point increase in the ratio compared with 3Q21 was driven by a 13% decrease in pre-tax core earnings¹ partially offset by a 2% decrease in core general expenses¹. The decline in core general expenses reflected lower variable incentive compensation expense and lower pension costs primarily due to market impacts, partially offset by investments to support increased productivity, including digital capabilities and regulatory requirements. Expense management, including initiatives to improve productivity, remains an important strategic priority as we aim to maintain an expense efficiency ratio of less than 50%.

Total general expenses in 3Q22 were in line with 3Q21 on both a constant and actual exchange rate basis reflecting the items noted above for core general expenses and a true up to an existing legal provision in the U.S. recorded outside of core earnings.

On a year-to-date basis, the expense efficiency ratio was 51.0% in 2022 compared with 48.9% in 2021. The 2.1 percentage point increase in the ratio compared with 2021 was driven by a 9% decrease in year-to-date pre-tax core earnings. Year-to-date core general expenses were in line with 2021 driven by higher workforce costs offset by lower distribution-related and discretionary expenses reflecting lower 2022 sales and lower pension expenses primarily due to market impacts.

Total year-to-date general expenses in 2022 decreased 3% compared with 2021 on both a constant and actual exchange rate basis due to the items noted above for core general expenses and a number of items recorded outside of core earnings. These include the non-recurrence of a restructuring charge and the establishment of a legal provision in 2021, partially offset by a 2022 integration charge in our Vietnam operation, expenses associated with the U.S. variable annuity reinsurance transaction and the above-noted true-up to the U.S. legal provision.

¹ This item is a non-GAAP financial measure. See "Non-GAAP and other financial measures" below for more information.

A2 Business performance

(\$ millions, unless otherwise stated) (unaudited)	Quarterly Results			YTD Results	
	3Q22	2Q22	3Q21	2022	2021
Asia APE sales	\$ 854	\$ 838	\$ 930	\$ 2,740	\$ 3,160
Canada APE sales	\$ 285	\$ 361	\$ 303	\$ 1,009	\$ 932
U.S. APE sales	\$ 207	\$ 209	\$ 203	\$ 615	\$ 544
Total APE sales ⁽¹⁾	\$ 1,346	\$ 1,408	\$ 1,436	\$ 4,364	\$ 4,636
Asia new business value	\$ 333	\$ 337	\$ 399	\$ 1,010	\$ 1,275
Canada new business value	\$ 89	\$ 82	\$ 71	\$ 275	\$ 225
U.S. new business value	\$ 92	\$ 92	\$ 69	\$ 253	\$ 188
Total new business value ⁽¹⁾	\$ 514	\$ 511	\$ 539	\$ 1,538	\$ 1,688
Global Wealth and Asset Management net flows (\$ billions) ⁽¹⁾	\$ 3.0	\$ 1.7	\$ 9.8	\$ 11.6	\$ 19.8
Global Wealth and Asset Management gross flows (\$ billions) ⁽¹⁾	\$ 32.0	\$ 33.6	\$ 35.2	\$ 104.1	\$ 108.7
Global Wealth and Asset Management assets under management and administration (\$ billions) ⁽²⁾	\$ 748.8	\$ 744.7	\$ 823.6	\$ 748.8	\$ 823.6
Global Wealth and Asset Management total invested assets (\$ billions)	\$ 3.7	\$ 4.0	\$ 4.3	\$ 3.7	\$ 4.3
Global Wealth and Asset Management segregated funds net assets (\$ billions)	\$ 214.5	\$ 213.3	\$ 244.6	\$ 214.5	\$ 244.6
Total assets under management and administration (\$billions) ^{(2),(3)}	\$ 1,277.1	\$ 1,264.7	\$ 1,381.6	\$ 1,277.1	\$ 1,381.6
Total invested assets (\$ billions) ⁽³⁾	\$ 411.3	\$ 402.3	\$ 419.1	\$ 411.3	\$ 419.1
Total segregated fund net assets (\$ billions) ⁽³⁾	\$ 335.2	\$ 334.9	\$ 387.8	\$ 335.2	\$ 387.8

⁽¹⁾ For more information on this metric, see "Non-GAAP and other financial measures" below.

⁽²⁾ This item is a non-GAAP financial measure. See "Non-GAAP and other financial measures" below for more information.

⁽³⁾ See section A5 below for more information.

Annualized premium equivalent ("APE") sales were \$1.3 billion in 3Q22, a decrease of 6%¹ compared with 3Q21. In Asia, APE sales decreased 7% compared with 3Q21, reflecting lower sales in Hong Kong, partially offset by higher sales in Japan and Asia Other². In Hong Kong, APE sales decreased 40% compared with 3Q21 driven by the impact of weaker customer sentiment on financial planning decisions and tighter COVID-19 containment measures in Macau during the quarter. In Japan, APE sales increased 22% compared with 3Q21 as a result of higher individual protection and other wealth sales. Asia Other APE sales increased 6% compared with 3Q21, reflecting higher bancassurance sales in mainland China, Vietnam and Singapore, partially offset by lower agency sales in Singapore and mainland China. In Canada, APE sales decreased 6% compared with 3Q21, primarily driven by lower segregated fund sales and the non-recurrence of a large affinity markets sale in 3Q21, partially offset by normal variability of large-case group insurance sales. In the U.S., APE sales decreased 1% compared with 3Q21, primarily due to lower sales of domestic life insurance products, partially offset by an increase in international sales, which are reported as part of U.S. segment results. APE sales of products with the John Hancock Vitality PLUS feature increased 12% compared with 3Q21, reflecting the increasing attractiveness of the Vitality feature as an option for health-focused life insurance consumers.

Year-to-date APE sales of \$4.4 billion in 2022 were 5% lower than the same period of 2021, driven by lower sales in Asia partially offset by higher sales in Canada and the U.S.

New business value ("NBV") was \$514 million in 3Q22, a decrease of 6% compared with 3Q21. In Asia, NBV decreased 17% compared with 3Q21 reflecting lower sales in Hong Kong and changes in product mix in Asia Other, partially offset by higher individual protection and other wealth sales in Japan. In Canada, NBV increased 25% compared with 3Q21, driven by higher margins in our insurance businesses, partially offset by lower volumes in Annuities. In the U.S., NBV increased 27% compared with 3Q21, driven by improved margins due to pricing actions, higher interest rates and changes in product mix.

Year-to-date NBV was \$1,538 million in 2022, a decrease of 9% compared with the same period of 2021. In Asia, NBV decreased compared with 2021 due to lower sales in Hong Kong and changes in product mix in

¹ Percentage growth / declines in APE sales, gross flows, net flows, and NBV are stated on a constant exchange rate basis.

² Asia Other excludes Hong Kong and Japan.

Asia Other, partially offset by higher individual protection and other wealth sales in Japan. In Canada, NBV increased compared with 2021 due to higher volumes in Group Insurance and higher margins in Individual Insurance. In the U.S., NBV increased compared with 2021 due to improved margins due to pricing actions, higher interest rates, and changes in product mix.

Global Wealth and Asset Management reported net inflows of \$3.0 billion in 3Q22 compared with net inflows of \$9.8 billion in 3Q21. Net inflows in Retirement were \$1.4 billion in 3Q22 compared with net inflows of \$0.6 billion in 3Q21, driven by growth in member contributions and lower plan redemptions. Net inflows in Retail were \$1.0 billion in 3Q22 compared with net inflows of \$7.9 billion in 3Q21, reflecting lower gross flows and higher mutual fund redemption rates due to decreased investor demand amid equity market declines and higher interest rates. Net inflows in Institutional Asset Management were \$0.6 billion in 3Q22 compared with net inflows of \$1.3 billion in 3Q21, driven by higher redemptions, partially offset by higher sales of equity and fixed income mandates.

Year-to-date net inflows were \$11.6 billion in 2022, compared with \$19.8 billion in the same period of 2021. The decrease was primarily driven by higher retail mutual fund redemption rates and lower gross flows. This was partially offset by the non-recurrence of a \$9.4 billion institutional redemption in Asia in 1Q21 as well as higher retirement gross flows from growth in member contributions.

A3 Financial strength

(unaudited)	Quarterly Results			YTD Results	
	3Q22	2Q22	3Q21	2022	2021
MLI's LICAT ratio ⁽¹⁾	136%	137%	138%	136%	138%
Financial leverage ratio	28.8%	28.5%	25.5%	28.8%	25.5%
Consolidated capital (\$ billions) ⁽²⁾	\$ 63.4	\$ 62.8	\$ 63.1	\$ 63.4	\$ 63.1
Book value per common share (\$)	\$ 26.17	\$ 25.56	\$ 25.78	\$ 26.17	\$ 25.78
Book value per common share excluding AOCI (\$)	\$ 25.88	\$ 25.49	\$ 23.41	\$ 25.88	\$ 23.41

⁽¹⁾ This item is disclosed under OSFI's Life Insurance Capital Adequacy Test Public Disclosure Requirements guideline.

⁽²⁾ This item is a capital management measure. For more information on this metric, see "Non-GAAP and other financial measures" below.

The Life Insurance Capital Adequacy Test ("LICAT") ratio for The Manufacturers Life Insurance Company ("MLI") as at September 30, 2022 was 136% compared with 137% as at June 30, 2022. The one percentage point decrease was mainly driven by the unfavourable impact of market movements on capital, primarily due to an increase in risk-free rates. The impact of the continued common share buybacks was largely offset by ongoing portfolio optimization initiatives.

MFC's LICAT ratio was 124% as at September 30, 2022, compared with 125% as at June 30, 2022. The difference between the MLI and MFC ratios as at September 30, 2022 was largely due to the \$6.3 billion of MFC senior debt outstanding that does not qualify as available capital at the MFC level but, based on the form it was down-streamed, qualifies as regulatory capital for MLI.

MFC's financial leverage ratio as at September 30, 2022 was 28.8%, an increase of 0.3 percentage points compared with 28.5% as at June 30, 2022. The increase in the ratio was driven by a reduction in the carrying value of AFS debt securities due to higher interest rates, and continued common share buybacks, partially offset by the impact of a weaker Canadian dollar and growth in retained earnings.

MFC's consolidated capital was \$63.4 billion as at September 30, 2022, a decrease of \$2.6 billion compared with \$66.0 billion as at December 31, 2021, driven by a decline in total equity due to a reduction in the carrying value of AFS debt securities due to higher interest rates, and continued common share buybacks, partially offset by growth in retained earnings and the impact of a weaker Canadian dollar.

Cash and cash equivalents and marketable securities¹ was \$239.2 billion as at September 30, 2022 compared with \$268.4 billion as at December 31, 2021. The reduction was primarily driven by the lower market value of fixed income instruments due to higher interest rates and the lower market value of public equities due to a decline in equity markets.

Book value per common share as at September 30, 2022 was \$26.17, a 2% decrease compared with \$26.78 as at December 31, 2021. Book value per common share excluding accumulated other comprehensive income (“AOCI”) was \$25.88 as at September 30, 2022, a 7% increase compared with \$24.12 as at December 31, 2021. The number of common shares outstanding was 1,888 million as at September 30, 2022 and was 1,943 million as at December 31, 2021.

A4 Revenue

(\$ millions, unaudited)	Quarterly Results			YTD Results	
	3Q22	2Q22	3Q21	2022	2021
Gross premiums	\$ 10,794	\$ 10,876	\$ 11,233	\$ 33,324	\$ 32,839
Premiums ceded to reinsurers	(1,322)	(1,249)	(1,250)	(4,723)	(3,834)
Net premium income	9,472	9,627	9,983	28,601	29,005
Investment income	3,883	3,675	3,964	10,975	11,277
Other revenue	2,377	2,057	2,994	6,425	8,391
Revenue before realized and unrealized investment gains and losses	15,732	15,359	16,941	46,001	48,673
Realized and unrealized gains and losses on assets supporting insurance and investment contract liabilities and on the macro hedge program ⁽¹⁾	(7,955)	(17,760)	(958)	(44,255)	(8,463)
Total revenue	\$ 7,777	\$ (2,401)	\$ 15,983	\$ 1,746	\$ 40,210

⁽¹⁾ See section A6 “Impact of fair value accounting”. Also see section A1 “Profitability” for information on the direct impact of equity markets and interest rates and variable annuity guarantee liabilities.

Total revenue in 3Q22 was \$7.8 billion compared with \$16.0 billion in 3Q21. The amount of revenue reported in any fiscal period can be significantly affected by fair value accounting, which can materially impact the reported realized and unrealized investment gains or losses on assets supporting insurance and investment contract liabilities and on the macro hedge program, a component of revenue (see section A7 “Impact of fair value accounting” below). Accordingly, we discuss specific drivers of revenue in each segment before realized and unrealized investment gains and losses in section B “Performance by Segment” below.

3Q22 revenue before realized and unrealized investment gains and losses on assets supporting insurance and investment contract liabilities and on the macro hedge program (“net realized and unrealized investment gains and losses”) of \$15.7 billion decreased \$1.2 billion compared with 3Q21, driven by lower other revenue, due to the impact of unfavourable markets and the 1Q22 U.S. variable annuity reinsurance transaction, and lower premiums in Asia. Net realized and unrealized investment gains and losses was a net charge of \$8.0 billion in 3Q22 compared with a net charge of \$1.0 billion in 3Q21. The charge in 3Q22 was primarily driven the impact of higher interest rates in the U.S. and Asia, and lower equity markets. The 3Q21 charge was primarily driven by the impact of interest rate increases in North America and Asia and lower equity markets in Asia, partially offset by fair value gains in ALDA.

On a year-to-date basis, revenue before net realized and unrealized investment gains and losses of \$46.0 billion was \$2.7 billion lower than the same period of 2021 due to similar factors noted above as well as higher ceded premiums from the U.S. variable annuity reinsurance transaction noted above and higher premiums in Canada due to business growth. Year-to-date net realized and unrealized investment gains and losses was a net charge of \$44.3 billion in 2022 compared with a net charge of \$8.5 billion in 2021. The year-to-date charge in 2022 was primarily driven by the impact of interest rate increases and lower equity markets partially offset by fair value gains in other invested assets. The year-to-date charge in 2021 was primarily due to the impact of interest rate increases partially offset by fair value gains in ALDA and overall growth in equity markets.

¹ Includes cash & cash equivalents, comprised of cash on deposit, Canadian and U.S. Treasury Bills and high quality short-term investments, and marketable assets, comprised of investment grade government and agency bonds, investment grade corporate bonds, investment grade securitized instruments, publicly traded common stocks and preferred shares.

See section A6 “Impact of fair value accounting” below. Also, see section A1 “Profitability” for additional information on the impact on 3Q22 net income attributed to shareholders from the direct impact of equity markets and interest rates and variable annuity guarantee liabilities.

A5 Assets under management and administration (“AUMA”)

AUMA as at September 30, 2022 was \$1.3 trillion, a decrease of 14% compared with December 31, 2021, primarily due to the impact of higher interest rates and lower equity markets, partially offset by year-to-date net inflows. Total invested assets and segregated funds net assets decreased 4% and 16%, respectively, on an actual exchange rate basis primarily due to the impact of higher interest rates and lower equity markets.

A6 Impact of fair value accounting

Fair value accounting policies affect the measurement of both our assets and our liabilities. The difference between the reported amounts of our assets and liabilities determined as of the balance sheet date and the immediately preceding balance sheet date in accordance with the applicable fair value accounting principles is reported as investment-related experience and the direct impact of equity markets and interest rates and variable annuity guarantees, each of which impacts net income attributed to shareholders (see section A1 “Profitability” above for discussion of 3Q22 experience).

Net realized and unrealized investment losses on assets supporting insurance and investment contract liabilities and on the macro hedge program were \$8.0 billion for 3Q22 (3Q21 – net loss of \$1.0 billion) and on a year-to-date basis, were net losses of \$44.3 billion in 2022 (2021 – net losses of \$8.5 billion). See “Revenue” section above for discussion of results.

As outlined in “Critical Actuarial and Accounting Policies” in the MD&A in our 2021 Annual Report, net insurance contract liabilities under IFRS are determined using Canadian Asset Liability Method (“CALM”), as required by the Canadian Institute of Actuaries (“CIA”). The measurement of policy liabilities includes the estimated value of future policyholder benefits and settlement obligations to be paid over the term remaining on in-force policies, including the costs of servicing the policies, reduced by the future expected policy revenues and future expected investment income on assets supporting the policies. Investment returns are projected using current asset portfolios and projected reinvestment strategies. Experience gains and losses are reported when current period activity differs from what was assumed in the policy liabilities at the beginning of the period. We classify gains and losses by assumption type. For example, current period investing activities that increase (decrease) the future expected investment income on assets supporting the policies will result in an investment-related experience gain (loss). See description of investment-related experience in “Non-GAAP and other financial measures” below.

A7 Impact of foreign currency exchange rates

Changes in foreign currency exchange rates from 3Q21 to 3Q22, decreased core earnings by \$3 million in 3Q22 primarily due to a stronger Canadian dollar compared with the Japanese Yen. Changes in foreign currency exchange rates increased year-to-date core earnings by \$11 million in 2022 compared with the same period of 2021 primarily due to a weaker Canadian dollar compared with the U.S. dollar. The impact of foreign currency exchange rates on items excluded from core earnings does not provide relevant information given the nature of those items.

A8 Business highlights

In Asia, we accelerated the utilization of ManuAcademy, our regional digital learning platform rolled out to Vietnam last quarter. Since the roll-out, the platform has enabled the onboarding of over 11,000 newly-recruited insurance agents, and delivered over 150,000 training hours to approximately 45,000 insurance agents. Our new training series, Manulife MasterClass, captures best practices from our Million Dollar Round Table agents and shares them across all agents through the platform. In Canada, we announced an expansion of the Manulife *Vitality* program, making it available to new term and universal life insurance policyholders effective November 2022. In the U.S., we continue to innovate our wellness offerings and announced a partnership with GRAIL, a healthcare company, offering access to Galleri®, their leading edge, multi-cancer early detection test to a pilot group of customers

through John Hancock Vitality. As the first life insurance carrier to make GRAIL's Galleri® test available, we are enabling eligible customers to take proactive steps to better understand and make more informed choices about their health. In Global WAM, we expanded our Environmental, Social and Governance investment offerings with the launch of the Global Climate Action strategy in Europe to meet increasing demand for sustainable investment solutions.

In addition, we continued to make progress on our digital journey in 3Q22. In Asia, we continued to drive the adoption of ePOS, our proprietary digital onboarding app, to enhance the distributor experience and enable faster, error-free new business application submissions with case adoption at 90%, an increase of 9 percentage points compared with 3Q21. In the U.S., we reduced the amount of time to onboard producers within our traditional brokerage channel by 92% by automating the background check process. In Global WAM, we made a number of enhancements to our digital platform in Retirement including rolling out functionality that enables members in Canada to book one-on-one meetings with a Manulife PlanRight financial advisor directly in the mobile app, which generated successful engagement, and resulted in approximately 1,400 advisor meeting requests in 3Q22. In addition, we recently enhanced digital service features which enable members in the U.S. to self-serve to a greater extent, resulting in a reduction of approximately 10,000 calls to the call centre this quarter.

A9 Transition to IFRS 17¹

As noted in “Critical Actuarial and Accounting Policies – Future Accounting and Reporting Changes” in the MD&A in our 2021 Annual Report, IFRS 17 “Insurance Contracts” will replace IFRS 4 “Insurance Contracts” effective for years beginning on January 1, 2023. The new standard will materially change the recognition and measurement of insurance contracts and the corresponding presentation and disclosures in the Company’s financial statements. We will be electing the option to record changes in insurance contract liabilities arising from changes in interest rates through other comprehensive income and will classify debt instruments as fair value through other comprehensive income under IFRS 9 “Financial Instruments”. The impacts of IFRS 17 are expected to include:

- The establishment of a Contractual Service Margin (“CSM”) on our in-force business which is expected to lead to an increase in insurance contract liabilities. The CSM represents unearned profits that are expected to amortize into income as services are provided. We continue to evaluate the potential impacts of all other changes including available accounting policy choices under IFRS 17 on the measurement of our insurance contract liabilities. While there is a range of outcomes for the CSM and all other changes impacting insurance contract liabilities, a significant portion of the impact to equity is expected to result from establishing a CSM on our in-force business. The overall impact of establishing the CSM, as well as other measurement impacts on our assets and liabilities, is expected to decrease equity upon transition by approximately 20%. We expect the impact of IFRS 17 to be approximately neutral to the LICAT capital ratio based on markets as of June 30, 2022 and calibration adjustments that OSFI made to the LICAT guideline² for 2023, relating to the inclusion of CSM in available capital and the reduction of the scalar on base solvency buffer. We expect our capital position will continue to be strong under IFRS 17. The actual impact at transition will depend on macro-economic conditions as at January 1, 2023.
- The deferral of the recognition of new business gains via the CSM, and to a substantially lesser extent, the timing of investments results, will shift earnings out into future periods. As a result, on transition, net income and core earnings in 2022 are expected to be lower under IFRS 17 compared with IFRS 4. This impact will be partially offset by the amortization into income of the CSM that will be established on our in-force business. Overall, considering these items along with the various other impacts, on transition we expect 2022 core earnings to decline by approximately 10% under IFRS 17 compared with IFRS 4. A transition impact on our net income attributed to shareholders is difficult to predict as it is also impacted by prevailing market conditions. In addition, we expect IFRS 17 to improve the stability of both our core earnings and net income attributed to shareholders.

¹ See “Caution regarding forward-looking statements” below. The information presented reflects the Company’s current interpretation of IFRS 17 based on its facts and circumstances as of the date hereof. Such interpretation, or the underlying relevant facts and circumstances, may change. The Company’s interpretation may also change pending the final issuance of regulatory and industry guidance relating to IFRS 17.

² As indicated in OSFI’s final Life Insurance Capital Adequacy Test (LICAT) 2023 guideline issued on July 21, 2022.

- Core earnings will remain a key performance metric and the definition will be adapted to align with IFRS 17. Under the revised definition, core earnings will exclude items such as the direct impact of markets and interest rates, including investment experience from ALDA, realized gains and losses on fixed income assets, hedge ineffectiveness, and changes in methods and assumptions recorded directly in profit or loss. We believe that the revised core earnings definition represents our operating performance and the long-term earnings capacity of the business.
- The treatment of new business gains under IFRS 17 is materially different from IFRS 4. The CSM is an intrinsic part of the value of an insurance business and is a measure of growth and future earnings generation capability. This highlights the importance of the CSM as a GAAP performance measure and as such, on transition, we will be adding two new medium-term targets:
 - i.) 15% growth per year for new business CSM, and
 - ii.) 8% to 10% growth per year in the CSM balance.

In 1Q22, we confirmed our medium-term financial and operating targets under IFRS 17, and upon transition, will adjust certain targets as follows:

- Core ROE will be increased to 15%+ (from 13%+ currently) due to the expected changes to core earnings and equity,
- Common share core dividend payout ratio¹ will be increased to 35% to 45% (from 30% to 40% currently) due to the expected changes to core earnings, and
- Leverage ratio definition will be adjusted to include the CSM in the denominator given the CSM represents unearned profit and available capital under LICAT.

We reported \$220 million (post-tax) from the impact of new business², which is included in core earnings and net income attributed to shareholders in 3Q22 (3Q21 – \$262 million). On a year-to-date basis, the impact of new business was \$633 million (post-tax) in 2022 (2021 – \$820 million). Under IFRS 17, the impact of new business will be recorded in the CSM and amortized into earnings as services are provided, unless the contracts are onerous³ at issue, which does not necessarily mean that the contract is not profitable over its lifetime, in which case the impact will be recorded directly in earnings.

¹ This item is a non-GAAP ratio. See “Non-GAAP and other financial measures” below for more information.

² The impact of new business represents the financial impact of all new business written in the period, including acquisition expenses.

³ Under IFRS 17, an insurance contract is onerous at the date of initial recognition if the fulfilment cash flows allocated to the contract and premiums, acquisition expenses and commissions arising from the contract at the date of initial recognition, in total are a net outflow (i.e. if there is a loss at initial recognition). An onerous designation does not necessarily mean that the contract is not profitable over its lifetime.

B PERFORMANCE BY SEGMENT

B1 Asia

(\$ millions, unless otherwise stated)

Canadian dollars	Quarterly Results			YTD Results	
	3Q22	2Q22	3Q21	2022	2021
Net income attributed to shareholders ⁽¹⁾	\$ 521	\$ 361	\$ 822	\$ 1,655	\$ 2,412
Core earnings ⁽¹⁾	513	513	533	1,563	1,629
Annualized premium equivalent sales	854	838	930	2,740	3,160
New business value	333	337	399	1,010	1,275
Revenue	3,843	2,499	6,658	9,354	21,620
Revenue before realized and unrealized investment gains and losses ⁽²⁾	6,667	6,654	7,191	20,889	21,015
Assets under management (\$ billions) ⁽³⁾	143.3	139.0	149.8	143.3	149.8
Total invested assets (\$ billions)	121.3	117.1	124.9	121.3	124.9
Segregated fund invested assets (\$ billions)	22.0	21.9	24.9	22.0	24.9

U.S. dollars					
Net income attributed to shareholders ⁽¹⁾	US\$ 399	US\$ 283	US\$ 654	US\$ 1,292	US\$ 1,924
Core earnings ⁽¹⁾	394	401	424	1,219	1,301
Annualized premium equivalent sales	655	656	738	2,138	2,521
New business value	255	264	317	787	1,018
Revenue	2,943	1,957	5,285	7,277	17,321
Revenue before realized and unrealized investment gains and losses ⁽²⁾	5,107	5,211	5,708	16,293	16,785
Assets under management (\$ billions) ⁽³⁾	104.3	107.8	117.6	104.3	117.6
Total invested assets (\$ billions)	88.3	90.8	98.0	88.3	98.0
Segregated fund invested assets (\$ billions)	16.0	17.0	19.6	16.0	19.6

⁽¹⁾ See "Non-GAAP and other financial measures" below for a reconciliation of core earnings to net income (loss) attributed to shareholders.

⁽²⁾ See section A6 "Impact of fair value accounting".

⁽³⁾ This item is a non-GAAP financial measure. See "Non-GAAP and other financial measures" below for more information.

Asia's 3Q22 net income attributed to shareholders was \$521 million compared with \$822 million in 3Q21. Net income attributed to shareholders is comprised of core earnings, which was \$513 million in 3Q22 compared with \$533 million in 3Q21, and items excluded from core earnings, which amounted to a net gain of \$8 million in 3Q22 compared with a net gain of \$289 million in 3Q21. See section E3 "Non-GAAP and other financial measures" below, for a reconciliation of core earnings to net income (loss) attributed to shareholders, and section A1 "Profitability" above, for explanations of the items excluded from core earnings. The changes in net income attributed to shareholders and core earnings expressed in Canadian dollars were due to the factors described below and, in addition, the change in core earnings reflected a net \$16 million unfavourable impact due to changes in foreign currency exchange rates versus the Canadian dollar.

Expressed in U.S. dollars, the presentation currency of the segment, net income attributed to shareholders was US\$399 million in 3Q22 compared with US\$654 million in 3Q21 and core earnings were US\$394 million in 3Q22 compared with US\$424 million in 3Q21. Items excluded from core earnings were a net gain of US\$5 million in 3Q22 compared with a net gain of US\$230 million in 3Q21.

Core earnings in 3Q22 decreased 2% compared with 3Q21 driven by lower new business volumes primarily in Hong Kong, partially offset by changes in product mix and in-force business growth. In addition, higher investment income on allocated capital increased core earnings by US\$12 million compared with 3Q21 (see Corporate and Other segment).

Year-to-date net income attributed to shareholders was US\$1,292 million in 2022 compared with US\$1,924 million in the same period of 2021. Year-to-date core earnings of US\$1,219 million in 2022 decreased 3% compared with the same period of 2021 driven by lower new business volumes in Hong Kong and Asia Other, as well as changes in product mix and unfavourable policyholder experience in mainland China. These items were partially offset by in-force business growth across the segment and favourable policyholder experience in Japan. In addition, higher year-to-date investment income on allocated capital increased core earnings by US\$37 million compared with 2021 (see Corporate and Other segment). Items excluded from year-to-date core earnings were a net gain of

US\$73 million in 2022 compared with a net gain of US\$623 million for the same period of 2021. See section E3 “Non-GAAP and other financial measures” below, for a reconciliation of year-to-date core earnings to year-to-date net income (loss) attributed to shareholders. Expressed in Canadian dollars, year-to-date core earnings reflected a net \$28 million unfavourable impact of changes in foreign currency exchange rates versus the Canadian dollar.

APE sales in 3Q22 were US\$655 million, a decrease of 7% compared with 3Q21. The decrease reflects lower sales in Hong Kong, partially offset by higher individual protection and other wealth sales in Japan and higher sales in Asia Other. NBV in 3Q22 was US\$255 million, a 17% decrease compared with 3Q21, reflecting lower sales in Hong Kong and changes in product mix in Asia Other, partially offset by higher individual protection and other wealth sales in Japan. Year-to-date APE sales were US\$2,138 million in 2022, a decrease of 12%, compared with the same period of 2021, driven by adverse impacts from COVID-19 in the first half of 2022 and the impact of weaker customer sentiment in 3Q22 in Hong Kong, lower corporate-owned life insurance product sales in Japan and lower sales in Asia Other, partially offset by higher individual protection and other wealth sales in Japan. Year-to-date NBV was US\$787 million in 2022, a decrease of 21%, compared with the same period of 2021, driven by lower sales in Hong Kong and changes in product mix in Asia Other, partially offset by higher individual protection and other wealth sales in Japan. New business value margin (“NBV margin”)¹ was 42.3% in 3Q22 compared with 46.0% in 3Q21.

- Hong Kong APE sales in 3Q22 were US\$133 million, a 40% decrease compared with 3Q21. The decrease in sales was driven by the impact of weaker customer sentiment on financial planning decisions, and tighter COVID-19 containment measures in Macau during the quarter. Restrictions on travel between Hong Kong and mainland China continued to impact cross-border commerce. Hong Kong NBV was US\$110 million in 3Q22, a decrease of 30% compared with 3Q21 due to lower sales volumes. Hong Kong NBV margin was 82.7% in 3Q22, an increase of 12.1 percentage points compared with 3Q21 driven by changes in product mix.
- Japan APE sales in 3Q22 were US\$74 million, a 22% increase compared with 3Q21, as a result of higher individual protection and other wealth sales. Japan NBV in 3Q22 of US\$27 million increased 112% compared with 3Q21 due to higher sales volumes and a higher non corporate-owned life insurance product mix. Japan NBV margin was 36.7% in 3Q22, an increase of 15.6 percentage points compared with 3Q21 driven by changes in product mix and improved margins.
- Asia Other APE sales in 3Q22 were US\$448 million, a 6% increase compared with 3Q21 reflecting higher bancassurance sales in mainland China, Vietnam and Singapore, partially offset by lower agency sales in Singapore and mainland China. Asia Other NBV in 3Q22 of US\$118 million decreased 15% compared with 3Q21, primarily due to changes in product mix. Asia Other NBV margin was 29.8% in 3Q22, a decrease of 7.1 percentage points compared with 3Q21.

Assets under management were US\$104.3 billion as at September 30, 2022, a decrease of US\$17.7 billion or 8.5% compared with December 31, 2021. The decrease was driven by the impact of market movements resulting from higher interest rates and unfavourable equity market performance on invested assets and segregated funds net assets, partially offset by net customer inflows of US\$8.0 billion.

Revenue was US\$2.9 billion in 3Q22 compared with US\$5.3 billion in 3Q21. The reduction in revenue reflected higher net realized and unrealized investment losses in 3Q22 driven by the impact of higher interest rates and unfavourable equity market performance on total invested assets. Revenue before realized and unrealized investment gains and losses was US\$5.1 billion in 3Q22, a decrease of US\$0.6 billion compared with 3Q21, driven by lower new business premiums, partially offset by recurring premium growth from in-force business. Year-to-date revenue was US\$7.3 billion in 2022 compared with US\$17.3 billion in the same period of 2021. Year-to-date revenue before realized and unrealized investment gains and losses was US\$16.3 billion in 2022, compared with US\$16.8 billion in the same period of 2021.

Business highlights – In 3Q22, we:

- accelerated the utilization of ManuAcademy, our regional digital learning platform rolled out to Vietnam last quarter. Since the roll-out, the platform has enabled the onboarding of over 11,000 newly-recruited insurance agents, and delivered over 150,000 training hours to approximately 45,000 insurance agents.

¹ For more information on this metric, see “Non-GAAP and other financial measures” below.

Our new training series, Manulife MasterClass, captures best practices from our Million Dollar Round Table agents and shares them across all agents through the platform; and

- enhanced our digital capabilities as we:
 - continued to drive the adoption of ePOS, our proprietary digital onboarding app, to enhance the distributor experience and enable faster, error-free new business application submissions with case adoption at 90%, an increase of 9 percentage points compared with 3Q21; and
 - further increased utilization of our digital claims platform, with 77% of claims being submitted digitally, an increase of 15 percentage points compared with 3Q21 driven by strong improvements in Japan and continued high customer adoption across Asia.

B2 Canada

(\$ millions, unless otherwise stated)	Quarterly Results			YTD Results	
	3Q22	2Q22	3Q21	2022	2021
Net income (loss) attributed to shareholders ⁽¹⁾	\$ 578	\$ 85	\$ (26)	\$ 1,210	\$ 738
Core earnings ⁽¹⁾	350	345	311	1,009	893
Annualized premium equivalent sales	285	361	303	1,009	932
Manulife Bank average net lending assets (\$ billions) ⁽²⁾	24.6	24.3	23.0	24.0	23.0
Revenue	4,342	(1,736)	2,911	323	6,266
Revenue before realized and unrealized investment income gains and losses	4,124	4,102	3,847	12,159	11,317
Assets under management (\$ billions)	144.5	142.8	157.8	144.5	157.8
Total invested assets (\$ billions)	109.7	107.2	117.6	109.7	117.6
Segregated funds net assets (\$ billions)	34.8	35.6	40.2	34.8	40.2

⁽¹⁾ See "Non-GAAP and other financial measures" below for a reconciliation of core earnings to net income (loss) attributed to shareholders.

⁽²⁾ This item is a non-GAAP financial measure. See "Non-GAAP and other financial measures" below for more information.

Canada's 3Q22 net income attributed to shareholders was \$578 million compared with a net loss of \$26 million in 3Q21. Net income attributed to shareholders is comprised of core earnings, which were \$350 million in 3Q22 compared with \$311 million in 3Q21, and items excluded from core earnings, which amounted to a net gain of \$228 million in 3Q22 compared with a net charge of \$337 million in 3Q21. See section E3 "Non-GAAP and other financial measures" below, for a reconciliation of core earnings to net income (loss) attributed to shareholders, and section A1 "Profitability" above, for explanations of the items excluded from core earnings.

Core earnings of \$350 million increased by \$39 million or 13% compared with 3Q21, primarily reflecting more favourable experience gains in Group Insurance, higher in-force earnings, higher Manulife Bank earnings and several smaller favourable items, partially offset by unfavourable claims experience in Individual Insurance.

Year-to-date net income attributed to shareholders was \$1,210 million in 2022 compared with \$738 million in the same period of 2021 and year-to-date core earnings were \$1,009 million in 2022 compared with \$893 million in the same period of 2021. The increase in year-to-date core earnings of \$116 million was primarily driven by higher in-force earnings and more favourable net experience gains in all businesses. Items excluded from year-to-date core earnings were a net gain of \$201 million in 2022 compared with a net charge of \$155 million for the same period of 2021. See section E3 "Non-GAAP and other financial measures" below, for a reconciliation of year-to-date core earnings to year-to-date net income (loss) attributed to shareholders.

APE sales of \$285 million in 3Q22 decreased by \$18 million or 6% compared with 3Q21, primarily driven by lower segregated fund sales and the non-recurrence of a large affinity markets sale in 3Q21, partially offset by normal variability of large-case group insurance sales. Year-to-date APE sales in 2022 were \$1,009 million, \$77 million or 8% higher than in the same period of 2021, primarily driven by higher large-case group insurance sales, partially offset by lower segregated fund sales.

- Individual insurance APE sales in 3Q22 of \$102 million decreased \$14 million or 12% compared with 3Q21, primarily due to the non-recurrence of a large affinity markets sale, lower universal life sales, partially offset by higher par and travel insurance sales.
- Group insurance APE sales in 3Q22 of \$133 million increased \$33 million or 33% compared with 3Q21, primarily due to normal variability of large-case sales.

- Annuities APE sales in 3Q22 of \$50 million decreased \$37 million or 43% compared with 3Q21, primarily due to the impact of market uncertainty on the demand for segregated fund products.

Manulife Bank average net lending assets for the quarter were \$25 billion as at September 30, 2022, up \$1.3 billion or 5% compared with the quarter ended December 31, 2021.

Assets under management were \$144.5 billion as at September 30, 2022, a decrease of \$17.5 billion or 11% compared with December 31, 2021, due to lower total invested assets and segregated funds net assets, primarily reflecting the impact of higher interest rates and a decline in equity markets.

Revenue in 3Q22 was \$4.3 billion compared with \$2.9 billion in 3Q21, an increase of \$1.4 billion compared with 3Q21, reflecting the non-recurrence of net realized and unrealized investment losses in 3Q21 compared with a net gain in 3Q22. Revenue before realized and unrealized investment gains and losses was \$4.1 billion in 3Q22, an increase of \$0.3 billion compared with 3Q21, primarily due to business growth. Year-to-date revenue was \$0.3 billion in 2022 compared with \$6.3 billion in the same period of 2021, a decrease of \$5.9 billion compared with the same period of 2021, driven by the impact of markets as noted above. Year-to-date revenue before realized and unrealized investment gains and losses was \$12.2 billion in 2022, an increase of 7% compared with the same period of 2021, also driven by similar factors noted above for the quarter.

Business highlights – In 3Q22, we announced an expansion of the Manulife *Vitality* program, making it available to new term and universal life insurance policyholders effective November, 2022.

B3 U.S.

(\$ millions, unless otherwise stated) <i>Canadian dollars</i>	Quarterly Results			YTD Results	
	3Q22	2Q22	3Q21	2022	2021
Net income attributed to shareholders ⁽¹⁾	\$ 641	\$ 832	\$ 697	\$ 3,540	\$ 1,586
Core earnings ⁽¹⁾	384	456	490	1,326	1,469
Annualized premium equivalent sales	207	209	203	615	544
Revenue	(1,567)	(4,329)	4,650	(11,240)	7,540
Revenue before realized and unrealized investment income gains and losses	3,817	3,593	4,175	9,783	11,623
Assets under management (\$ billions)	218.7	213.7	240.9	218.7	240.9
Total invested assets (\$ billions)	154.7	149.5	162.7	154.7	162.7
Segregated funds net assets (\$ billions)	64.0	64.2	78.2	64.0	78.2
<i>U.S. dollars</i>					
Net income attributed to shareholders ⁽¹⁾	US\$ 491	US\$ 651	US\$ 553	US\$ 2,775	US\$ 1,275
Core earnings ⁽¹⁾	294	357	389	1,035	1,174
Annualized premium equivalent sales	159	164	161	480	435
Revenue	(1,201)	(3,391)	3,689	(8,812)	6,188
Revenue before realized and unrealized investment income gains and losses	2,922	2,815	3,312	7,612	9,288
Assets under management (\$ billions)	159.2	165.7	189.1	159.2	189.1
Total invested assets (\$ billions)	112.6	115.9	127.7	112.6	127.7
Segregated funds net assets (\$ billions)	46.6	49.8	61.4	46.6	61.4

⁽¹⁾ See “Non-GAAP and other financial measures” below for a reconciliation of core earnings to net income (loss) attributed to shareholders.

U.S. 3Q22 net income attributed to shareholders was \$641 million compared with \$697 million in 3Q21. Net income attributed to shareholders is comprised of core earnings, which amounted to \$384 million in 3Q22 compared with \$490 million in 3Q21, and items excluded from core earnings, which amounted to a net gain of \$257 million in 3Q22 compared with a net gain of \$207 million in 3Q21. See section E3 “Non-GAAP and other financial measures” below, for a reconciliation of core earnings to net income (loss) attributed to shareholders, and section A1 “Profitability” above, for explanations of the items excluded from core earnings. The changes in net income attributed to shareholders and core earnings expressed in Canadian dollars were due to the factors described below and, in addition, the change in core earnings reflected a \$13 million favourable impact from the strengthening of the U.S. dollar compared with the Canadian dollar.

Expressed in U.S. dollars, the functional currency of the segment, 3Q22 net income attributed to shareholders was US\$491 million compared with US\$553 million in 3Q21, core earnings were US\$294 million in 3Q22 compared with US\$389 million in 3Q21, and items excluded from core earnings were a net gain of US\$197 million in 3Q22 compared with a net gain of US\$164 million in 3Q21.

Core earnings decreased US\$95 million or 24% compared with 3Q21, due to lower core earnings in Annuities and Insurance. The decline in Annuities core earnings was driven primarily by reduced in-force earnings of US\$39 million related to the reinsurance of a significant portion of the variable annuity block in 1Q22. Insurance core earnings were lower primarily due to unfavourable policyholder experience and lower new business gains. Insurance policyholder experience worsened due to increased unfavourable life insurance policyholder experience and unfavourable long-term care policyholder experience, compared with favourable policyholder experience in the prior year. In addition, higher investment income on allocated capital increased core earnings by US\$6 million compared with 3Q21 (see Corporate and Other segment).

Year-to-date net income attributed to shareholders was US\$2,775 million in 2022 compared with US\$1,275 million in the same period of 2021 and year-to-date core earnings were US\$1,035 million in 2022 compared with US\$1,174 million in the same period of 2021. Year-to-date core earnings decreased US\$139 million due to lower in-force earnings in Annuities of US\$106 million related to the previously mentioned variable annuity reinsurance transaction in 1Q22, net unfavourable policyholder experience, lower new business gains, and the non-recurrence of prior year gains from the Annuity Guaranteed Minimum Withdrawal Benefit offer program. These items were partially offset by improved and net positive other experience gains. Compared with the same period of 2021, less favourable long-term care and annuities policyholder experience was partially offset by improved unfavourable life insurance policyholder experience. In addition, higher year-to-date investment income on allocated capital increased core earnings by US\$18 million compared with 2021 (see Corporate and Other segment). Items excluded from year-to-date core earnings were a net gain of US\$1,740 million in 2022 compared with a net gain of US\$101 million for the same period of 2021. See section E3 “Non-GAAP and other financial measures” below, for a reconciliation of year-to-date core earnings to year-to-date net income (loss) attributed to shareholders. Items excluded from year-to-date core earnings included a gain of US\$641 million related to the previously mentioned variable annuity reinsurance transaction in 1Q22. Expressed in Canadian dollars, year-to-date core earnings reflected a \$31 million favourable impact of changes in foreign currency exchange rates versus the Canadian dollar.

APE sales in 3Q22 of US\$159 million decreased 1% compared with 3Q21 due to lower sales of domestic life insurance products, partially offset by an increase in international sales. Lower sales of domestic life insurance products reflect the impact of higher inflation on life insurance products that are purchased primarily to protect household income. Year-to-date APE sales in 2022 of US\$480 million increased 10% compared with the same period of 2021 primarily due to higher customer demand for international, domestic variable universal life and indexed universal life product offerings, partially offset by lower sales of domestic protection-oriented insurance products for the reason mentioned above. 3Q22 APE sales of products with the John Hancock Vitality PLUS feature increased 12% compared with 3Q21 and on a year-to-date basis, 2022 APE sales increased 28% compared with the same period in 2021, reflecting the increasing attractiveness of the Vitality feature as an option for health-focused life insurance consumers.

Assets under management as at September 30, 2022 were US\$159.2 billion, a decrease of 17% compared with December 31, 2021. The decrease in total invested assets and segregated funds net assets was primarily due to the impact from markets, reflecting an increase in interest rates and a decline in equity markets, and the continued run-off of the annuity business, including the impact on total invested assets from the above-noted variable annuity reinsurance transaction.

Revenue in 3Q22 was a net loss of US\$1.2 billion compared with a net gain of US\$3.7 billion in 3Q21. The 3Q22 net loss reflected net realized and unrealized investment losses driven by the impact of markets on total invested assets as noted above. Revenue before net realized and unrealized investment gains and losses was US\$2.9 billion in 3Q22 compared with US\$3.3 billion in 3Q21. The US\$0.4 billion decrease was driven by the unfavourable impact of markets and the above-noted variable annuity reinsurance transaction. Year-to-date revenue was a net loss of US\$8.8 billion in 2022, compared with a net gain of US\$6.2 billion in the same period of 2021. The

US\$15.0 billion decrease was driven by similar factors noted above. Year-to-date revenue before realized and unrealized investment gains and losses was US\$7.6 billion in 2022 compared with US\$9.3 billion in the same period of 2021. The US\$1.7 billion decrease was primarily driven by the year-to-date impact of the above-noted variable annuity reinsurance transaction.

Business highlights – In 3Q22, we:

- continued to innovate our wellness offerings and announced a partnership with GRAIL, a healthcare company, offering access to Galleri®, their leading edge, multi-cancer early detection test to a pilot group of customers through John Hancock Vitality. As the first life insurance carrier to make GRAIL’s Galleri® test available, we are enabling eligible customers to take proactive steps to better understand and make more informed choices about their health; and
- achieved the following digital successes which improved the customer experience while contributing to a more cost-efficient operation:
 - reduced call centre volumes by 22% by optimizing the customer registration and login processes of our John Hancock Vitality program; and
 - reduced the amount of time to onboard producers within our traditional brokerage channel by 92% by automating the background check process.

B4 Global Wealth and Asset Management

(\$ millions, unless otherwise stated)	Quarterly Results			YTD Results	
	3Q22	2Q22	3Q21	2022	2021
Net income attributed to shareholders ⁽¹⁾	\$ 345	\$ 305	\$ 351	\$ 974	\$ 1,019
Core earnings ⁽¹⁾	345	305	351	974	1,019
Core EBITDA ⁽²⁾	504	467	529	1,461	1,519
Core EBITDA margin (%) ⁽³⁾	32.7%	30.7%	31.5%	31.4%	31.6%
Sales					
Wealth and asset management gross flows	32,024	33,602	35,229	104,095	108,677
Wealth and asset management net flows	3,012	1,713	9,824	11,616	19,809
Revenue	1,542	1,521	1,680	4,649	4,814
Assets under management and administration (\$ billions)	748.8	744.7	823.6	748.8	823.6
Total invested assets (\$ billions)	3.7	4.0	4.3	3.7	4.3
Segregated funds net assets (\$ billions)	214.5	213.3	244.9	214.5	244.9
Average assets under management and administration (\$ billions) ⁽⁴⁾	771.8	776.8	815.9	785.4	786.0

⁽¹⁾ See “Non-GAAP and other financial measures” below for a reconciliation of core earnings to net income (loss) attributed to shareholders.

⁽²⁾ This item is a non-GAAP financial measure. See “Non-GAAP and other financial measures” below for more information.

⁽³⁾ This item is a non-GAAP ratio. See “Non-GAAP and other financial measures” below for more information.

⁽⁴⁾ For more information on this metric, see “Non-GAAP and other financial measures” below.

Global Wealth and Asset Management’s 3Q22 net income attributed to shareholders was \$345 million compared with \$351 million in 3Q21. Net income attributed to shareholders is comprised of core earnings, which were \$345 million in 3Q22 compared with \$351 million in 3Q21 and items excluded from core earnings, which were nil in both 3Q22 and 3Q21. See section E3 “Non-GAAP and other financial measures” below, for a reconciliation of core earnings to net income (loss) attributed to shareholders.

Core earnings in 3Q22 decreased 3% compared with 3Q21 driven by a decrease in net fee income from lower average AUMA due to equity market declines and higher interest rates in 2022. This was partially offset by lower variable incentive compensation expense and higher tax benefits. Net income attributed to shareholders decreased \$6 million in 3Q22 compared with 3Q21 driven by the same factors noted above for core earnings.

Core EBITDA was \$503 million in 3Q22, a decrease of 7% compared with 3Q21, driven by lower fee income, partially offset by lower variable incentive compensation expense as mentioned above. Core EBITDA margin was 32.7% in 3Q22, an increase of 120 basis points compared with 3Q21 driven by lower variable incentive compensation expense, partially offset by a decline in net fee income from lower average AUMA. See section E3 “Non-GAAP and other financial measures” below, for additional information on core EBITDA and core EBITDA margin. Income before income taxes for Global WAM was \$395 million in 3Q22, a decrease of \$22 million compared with 3Q21, driven by similar factors as noted above for core EBITDA.

Year-to-date net income attributed to shareholders was \$974 million in 2022 compared with \$1,019 million in the same period of 2021 and year-to-date core earnings were \$974 million in 2022 compared with \$1,019 million in the same period of 2021. The decrease in year-to-date core earnings of \$45 million or 6% was due to a decline in net fee income from lower average AUMA and lower fee spread partially offset by several smaller positive items. Items excluded from year-to-date core earnings were nil in both 2022 and 2021. See section E3 “Non-GAAP and other financial measures” below, for a reconciliation of core earnings to net income (loss) attributed to shareholders. Year-to-date net income attributed to shareholders decreased \$45 million in 2022 compared with 2021 driven by the same factors noted above for year-to-date core earnings.

Year-to-date core EBITDA was \$1,461 million in 2022 compared with \$1,519 million in the same period of 2021. The decrease in year-to-date core EBITDA of \$58 million or 5% was driven by the factors noted above for year-to-date core earnings. Year-to-date core EBITDA margin was 31.4% in 2022 compared with 31.6% in the same period of 2021. The decrease of 20 basis points was driven by the factors as noted above for year-to-date core earnings. See section E3 “Non-GAAP and other financial measures” below, for additional information on year-to-date core EBITDA and year-to-date core EBITDA margin. Year-to-date income before income taxes for Global WAM was \$1,143 million in 2022, a decrease of \$60 million compared with 2021, driven by similar factors as noted above for year-to-date core EBITDA.

Wealth and asset management gross flows were \$32.0 billion in 3Q22, a decline of 10% compared with 3Q21.

The 3Q22 results by business line were:

- Retirement gross flows of \$12.8 billion, in line with 3Q21, driven by growth in member contributions offset by lower new plan sales.
- Retail gross flows of \$15.5 billion, a decrease of 21% compared with 3Q21, driven by lower investor demand amid equity market declines and higher interest rates.
- Institutional Asset Management gross flows of \$3.7 billion, an increase of 13% compared with 3Q21, driven by higher sales of equity and fixed income mandates.

Year-to-date gross flows were \$104.1 billion in 2022, a decrease of 5% compared with the same period of 2021, mainly driven by lower retail gross flows due to the factors mentioned above. This was partially offset by higher retirement gross flows from growth in member contributions. Gross flows in Institutional Asset Management were in line with the prior year as lower sales of fixed income mandates offset a \$1.9 billion sale of an equity mandate.

Wealth and asset management net inflows were \$3.0 billion in 3Q22, compared with net inflows of \$9.8 billion in 3Q21. By business line, the results were:

- Retirement net inflows were \$1.4 billion in 3Q22 compared with net inflows of \$0.6 billion in 3Q21, reflecting higher gross flows as mentioned above and lower plan redemptions.
- Net inflows in Retail were \$1.0 billion in 3Q22 compared with net inflows of \$7.9 billion in 3Q21, reflecting lower gross flows as mentioned above and higher mutual fund redemption rates.
- Net inflows in Institutional Asset Management were \$0.6 billion in 3Q22 compared with net inflows of \$1.3 billion in 3Q21, driven by higher redemptions, partially offset by higher gross flows as mentioned above.

Year-to-date net inflows were \$11.6 billion in 2022, compared with \$19.8 billion in same period of 2021. The decrease was primarily driven by higher retail mutual fund redemption rates and lower gross flows. This was partially offset by the non-recurrence of a \$9.4 billion institutional redemption in Asia in 1Q21 as well as higher retirement gross flows from growth in member contributions.

Assets under management and administration of \$748.8 billion as at September 30, 2022 decreased 17% compared with December 31, 2021. The decrease was driven by equity market declines and the impact of higher interest rates, partially offset by year-to-date net inflows of \$11.6 billion. As at September 30, 2022, Global WAM also managed \$220.6 billion in assets for the Company’s non-WAM reporting segments. Including those managed assets, AUMA managed by Global WAM¹ was \$969.3 billion compared with \$1,102.7 billion as at December 31, 2021.

¹ This item is a non-GAAP financial measure. See “Non-GAAP and other financial measures” below for more information.

Segregated funds net assets were \$214.5 billion for September 30, 2022, 15% lower compared with December 31, 2021 on an actual exchange rate basis, driven by equity market declines and the impact of higher interest rates. Total invested assets in our general fund form a small portion of Global WAM AUMA.

Revenue in 3Q22 was \$1.5 billion, a decrease of 10% compared with 3Q21, driven by lower average AUMA. Year-to-date revenue in 2022 was \$4.6 billion, a decrease of 5% compared with the same period of 2021, driven by lower average AUMA and lower fee spread, as well as lower investment income.

Business highlights – In 3Q22, we:

- made a number of enhancements to our digital platform in Retirement including rolling out functionality that enables members in Canada to book one-on-one meetings with a Manulife PlanRight financial advisor directly in the mobile app, which generated successful engagement, and resulted in approximately 1,400 advisor meeting requests in 3Q22. In addition, we recently enhanced digital service features which enable members in the U.S. to self-serve to a greater extent, resulting in a reduction of approximately 10,000 calls to the call centre this quarter; and
- expanded our Environmental, Social and Governance investment offerings with the launch of the Global Climate Action strategy in Europe to meet increasing demand for sustainable investment solutions.

B5 Corporate and Other

(\$ millions, unless otherwise stated)	Quarterly Results			YTD Results	
	3Q22	2Q22	3Q21	2022	2021
Net income (loss) attributed to shareholders ⁽¹⁾	\$ (738)	\$ (497)	\$ (252)	\$ (1,976)	\$ (734)
Core loss excluding core investment gains ⁽¹⁾	\$ (370)	\$ (157)	\$ (268)	\$ (736)	\$ (482)
Core investment gains	100	100	100	300	300
Total core earnings (loss)	\$ (270)	\$ (57)	\$ (168)	\$ (436)	\$ (182)
Revenue	\$ (383)	\$ (356)	\$ 84	\$ (1,340)	\$ (30)

⁽¹⁾ See “Non-GAAP and other financial measures” below for a reconciliation of core earnings to net income (loss) attributed to shareholders.

Corporate and Other is composed of investment performance on assets backing capital, net of amounts allocated to operating segments; financing costs; costs incurred by the corporate office related to shareholder activities (not allocated to the operating segments); our Property and Casualty (“P&C”) Reinsurance business; as well as our run-off reinsurance operation including variable annuities and accident and health.

For segment reporting purposes, settlement costs for macro equity hedges and other non-operating items are included in Corporate and Other earnings. This segment is also where we reclassify favourable investment-related experience to core earnings from items excluded from core earnings, subject to certain limits (see “Non-GAAP and other financial measures” below). In each of the operating segments, we report all investment-related experience in items excluded from core earnings.

Corporate and Other reported a 3Q22 net loss attributed to shareholders of \$738 million compared with net loss attributed to shareholders of \$252 million in 3Q21. The core loss was \$270 million in 3Q22 compared with a core loss of \$168 million in 3Q21 and the items excluded from core earnings amounted to a net charge of \$468 million in 3Q22 compared with a net charge of \$84 million in 3Q21. See section E3 “Non-GAAP and other financial measures” below, for a reconciliation of core earnings (loss) to net income (loss) attributed to shareholders.

The \$102 million increase in core loss was primarily due to a \$256 million charge in our P&C Reinsurance business for estimated losses relating to Hurricane Ian compared with a \$152 million charge for estimated losses related to Hurricane Ida and the European floods in 3Q21. In addition, the core loss includes \$56 million of lower net gains on sales of AFS equities, \$38 million of higher losses on seed money investments in segregated funds and mutual funds and higher interest on allocated capital to operating segments in 3Q22, which was substantially offset by higher yields on fixed income investments; and lower pension expenses that were primarily due to market impacts and lower variable incentive compensation.

The 3Q22 items excluded from core loss was a net charge of \$468 million, primarily driven by losses on sales of AFS bonds and other direct impacts of markets and the reclassification of \$100 million of the total Company’s favourable investment-related experience to core earnings.

On a year-to-date basis, the net loss attributed to shareholders was \$1,976 million in 2022 compared with a net loss attributed to shareholders of \$734 million in the same period of 2021. The year-to-date core loss was \$436 million in 2022 compared with a core loss of \$182 million in the same period of 2021. The increase in the year-to-date core loss of \$254 million was primarily attributable to the year-to-date net charge of \$153 million from the unfavourable impact of markets on seed money investments in new segregated funds and mutual funds and sales of AFS equities in 2022 compared with a \$145 million year-to-date net gain in 2021, higher P&C Reinsurance provisions compared with prior year and \$87 million of higher year-to-date interest on allocated capital to operating segments in 2022. These losses were partially offset by higher yields on fixed income investments; and lower pension expenses that are primarily due to market impacts and lower variable compensation expense. Items excluded from the year-to-date core loss were a net loss of \$1,540 million in 2022 compared with a net loss of \$552 million in the same period of 2021. See section E3 “Non-GAAP and other financial measures” below, for a reconciliation of core earnings to net income (loss) attributed to shareholders.

Revenue in 3Q22 was a loss of \$383 million compared with a gain of \$84 million in 3Q21. The \$467 million variance was primarily driven by higher net realized losses on the sale of AFS bonds in 3Q22, higher losses from seed money investments, lower gains from AFS equities and higher interest on allocated capital to operating segments. These amounts were partially offset by gains on derivative positions in 3Q22 compared with a loss in 3Q21 and higher yields on fixed income investments.

Year-to-date revenue was a loss of \$1,340 million in 2022 compared with a loss of \$30 million in the same period of 2021. The increase in the loss was largely due to similar items noted above other than derivative positions which contributed lower losses in 2022 compared with 2021.

C RISK MANAGEMENT AND RISK FACTORS UPDATE

This section provides an update to our risk management practices and risk factors outlined in the MD&A in our 2021 Annual Report (“2021 MD&A”). Text and tables in this section of the MD&A represent our disclosure on market and liquidity risk in accordance with IFRS 7 “Financial Instruments – Disclosures”. Disclosures in accordance with IFRS 7 are identified by a vertical line in the left margin of each page. The identified text and tables represent an integral part of our unaudited Interim Consolidated Financial Statements.

C1 Variable annuity and segregated fund guarantees

As described in the MD&A in our 2021 Annual Report, 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 guaranteed values. Depending on future equity market levels, liabilities on current in-force business would be due primarily in the period from 2022 to 2042.

We seek to mitigate a portion of the risks embedded in our retained (i.e. net of reinsurance) variable annuity and segregated fund guarantee business through the combination of our dynamic and macro hedging strategies (see section C3 “Publicly traded equity performance risk” 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

As at (\$ millions)	September 30, 2022			December 31, 2021		
	Guarantee value ⁽¹⁾	Fund value	Amount at risk ^{(1),(2),(3)}	Guarantee value ⁽¹⁾	Fund value	Amount at risk ^{(1),(2),(3)}
Guaranteed minimum income benefit	\$ 4,499	\$ 2,679	\$ 1,823	\$ 4,419	\$ 3,603	\$ 918
Guaranteed minimum withdrawal benefit	38,953	33,917	6,412	39,098	41,809	2,233
Guaranteed minimum accumulation benefit	20,240	20,036	314	19,820	20,226	12
Gross living benefits ⁽⁴⁾	63,692	56,632	8,549	63,337	65,638	3,163
Gross death benefits ⁽⁵⁾	10,837	14,754	2,673	11,105	22,920	618
Total gross of reinsurance	74,529	71,386	11,222	74,442	88,558	3,781
Living benefits reinsured	26,245	22,184	5,329	3,788	3,102	771
Death benefits reinsured	3,833	2,488	1,150	639	547	253
Total reinsured ⁽⁶⁾	30,078	24,672	6,479	4,427	3,649	1,024
Total, net of reinsurance	\$ 44,451	\$ 46,714	\$ 4,743	\$ 70,015	\$ 84,909	\$ 2,757

⁽¹⁾ Guaranteed 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 September 30, 2022 was \$4,743 million (December 31, 2021 – \$2,757 million) of which: US\$1,124 million (December 31, 2021 – US\$1,336 million) was on our U.S. business, \$2,485 million (December 31, 2021 – \$886 million) was on our Canadian business, US\$242 million (December 31, 2021 – US\$53 million) was on our Japan business and US\$277 million (December 31, 2021 – US\$87 million) was related to Asia (other than Japan) and our 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.

⁽⁶⁾ Reinsured amounts at September 30, 2022 reflect the U.S. variable annuity reinsurance transaction which closed on February 1, 2022.

C2 Caution related to sensitivities

In this document, we provide 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 and the actuarial factors, investment activity and investment returns assumed in the determination of policy liabilities. 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 actuarial and investment return and future investment activity assumptions; actual experience differing from the assumptions, changes in business mix, effective tax rates and other market factors; and the general limitations of our 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, we cannot provide assurance that the actual impact on net income attributed to shareholders or on MLI's LICAT ratio will be as indicated.

Market movements affect LICAT capital sensitivities both through income and other components of the regulatory capital framework. For example, LICAT is affected by changes to other comprehensive income.

C3 Publicly traded equity performance risk

As outlined in our 2021 Annual Report, we have net exposure to equity risk through asset and liability mismatches; our variable annuity guarantee dynamic hedging strategy is not designed to completely offset the sensitivity of policy liabilities to all risks associated with the guarantees embedded in these products. The macro hedging strategy is designed to mitigate public equity risk arising from variable annuity guarantees not dynamically hedged and from other unhedged exposures in our insurance liabilities (see pages 58 and 59 of our 2021 Annual Report).

Changes in public equity prices may impact other items including, but not limited to, asset-based fees earned on assets under management and administration or policyholder account value, and estimated profits and amortization of deferred policy acquisition and other costs. These items are not hedged.

The table below shows the potential impact on net income attributed to shareholders resulting from an immediate 10%, 20% and 30% change in market values of publicly traded equities followed by a return to the expected level of growth assumed in the valuation of policy liabilities. If market values were to remain flat for an entire year, the potential impact would be roughly equivalent to an immediate decline in market values equal to the expected level of annual growth assumed in the valuation of policy liabilities. Further, if after market values dropped 10%, 20% or 30% they continued to decline, remained flat, or grew more slowly than assumed in the valuation the potential impact on net income attributed to shareholders could be considerably more than shown. Refer to section D3 “Sensitivity of earnings to asset related assumptions” for more information on the level of growth assumed and on the net income sensitivity to changes in these long-term assumptions. The potential impact is shown after taking into account the impact of the change in markets on the hedge assets. While we cannot reliably estimate the amount of the change in dynamically hedged variable annuity guarantee liabilities that will not be offset by the profit or loss on the dynamic hedge assets, we make certain assumptions for the purposes of estimating the impact on net income attributed to shareholders.

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 are rebalanced at 5% intervals. In addition, we assume that the macro hedge assets are rebalanced in line with 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 Standards of Practice for the valuation of insurance contract liabilities and guidance published by the CIA constrain the investment return assumptions for public equities and certain ALDA assets based on historical return benchmarks for public equities. The potential impact on net income attributed to shareholders does not take into account possible changes to investment return assumptions resulting from the impact of declines in public equity market values on these historical return benchmarks.

Potential immediate impact on net income attributed to shareholders arising from changes to public equity returns^{(1),(2),(3)}

As at September 30, 2022

(\$ millions)	-30%	-20%	-10%	+10%	+20%	+30%
Underlying sensitivity to net income attributed to shareholders⁽⁴⁾						
Variable annuity guarantees	\$ (1,250)	\$ (760)	\$ (350)	\$ 290	\$ 530	\$ 720
General fund equity investments ⁽⁵⁾	(1,500)	(1,000)	(500)	440	820	1,200
Total underlying sensitivity before hedging	(2,750)	(1,760)	(850)	730	1,350	1,920
Impact of macro and dynamic hedge assets ⁽⁶⁾	970	590	280	(270)	(490)	(680)
Net potential impact on net income attributed to shareholders after impact of hedging⁽⁷⁾	\$ (1,780)	\$ (1,170)	\$ (570)	\$ 460	\$ 860	\$ 1,240

As at December 31, 2021

(\$ millions)	-30%	-20%	-10%	+10%	+20%	+30%
Underlying sensitivity to net income attributed to shareholders⁽⁴⁾						
Variable annuity guarantees	\$ (2,560)	\$ (1,480)	\$ (630)	\$ 440	\$ 750	\$ 960
General fund equity investments ⁽⁵⁾	(1,430)	(890)	(440)	450	880	1,320
Total underlying sensitivity before hedging	(3,990)	(2,370)	(1,070)	890	1,630	2,280
Impact of macro and dynamic hedge assets ⁽⁶⁾	2,060	1,190	500	(470)	(820)	(1,110)
Net potential impact on net income attributed to shareholders after impact of hedging⁽⁷⁾	\$ (1,930)	\$ (1,180)	\$ (570)	\$ 420	\$ 810	\$ 1,170

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

⁽²⁾ The tables above show the potential impact on net income attributed to shareholders resulting from an immediate 10%, 20% and 30% change in market values of publicly traded equities followed by a return to the expected level of growth assumed in the valuation of policy liabilities, excluding impacts from asset-based fees earned on assets under management and policyholder account value.

⁽³⁾ Please refer to section D3 "Sensitivity of earnings to asset related assumptions" for more information on the level of growth assumed and on the net income sensitivity to changes in these long-term assumptions.

⁽⁴⁾ Defined as earnings sensitivity to a change in public equity markets including settlements on reinsurance contracts, but before the offset of hedge assets or other risk mitigants.

⁽⁵⁾ This impact for general fund equity investments includes general fund investments supporting our policy liabilities, investment in seed money investments (in segregated and mutual funds made by Corporate and Other segment) and the impact on policy liabilities related to the projected future fee income on variable universal life and other unit linked products. The impact does not include: (i) any potential impact on public equity weightings; (ii) any gains or losses on AFS public equities held in the Corporate and Other segment; or (iii) any gains or losses on public equity investments held in Manulife Bank. The participating policy funds are largely self-supporting and generate no material impact on net income attributed to shareholders as a result of changes in equity markets.

⁽⁶⁾ Includes the impact of rebalancing equity hedges in the macro and dynamic hedging program. The impact of dynamic hedge rebalancing represents the impact of rebalancing equity hedges for dynamically hedged variable annuity guarantee best estimate liabilities at 5% intervals, but does not include any impact in respect of other sources of hedge ineffectiveness (e.g. fund tracking, realized volatility and equity, interest rate correlations different from expected among other factors).

⁽⁷⁾ The sensitivity on net income attributed to shareholders from changes in public equity returns after the impact of hedging is largely unchanged as at September 30, 2022 compared with December 31, 2021. This is due to the decline in sensitivities in 1Q22 as a result of the U.S. variable annuity reinsurance transaction being largely offset by the increase in sensitivities in the second quarter of 2022 ("2Q22") and 3Q22 as a result of the impact of equity market declines on our variable universal life business projected fee income.

Changes in equity markets impact our available and required components of the LICAT total ratio. The following table shows the potential impact to MLI's LICAT total ratio resulting from changes in public equity market values.

Potential immediate impact on MLI's LICAT total ratio arising from public equity returns different than the expected returns assumed in the valuation of policy liabilities^{(1),(2),(3)}

Percentage points	Impact on MLI's LICAT total ratio					
	-30%	-20%	-10%	+10%	+20%	+30%
September 30, 2022	(2)	(1)	-	1	1	1
December 31, 2021	(1)	-	-	-	1	-

⁽¹⁾ See "Caution related to sensitivities" above. In addition, estimates exclude changes to the net actuarial gains/losses with respect to the Company's pension obligations as a result of changes in equity markets, as the impact on the quoted sensitivities is not considered to be material.

⁽²⁾ The potential impact is shown assuming that the change in value of the hedge assets does not completely offset the change in the dynamically hedged variable annuity guarantee liabilities. The estimated amount that would not be completely offset relates to our practices of not hedging the provisions for adverse deviation and of rebalancing equity hedges for dynamically hedged variable annuity liabilities at 5% intervals.

⁽³⁾ The Office of the Superintendent of Financial Institutions ("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.

C4 Interest rate and spread risk sensitivities and exposure measures

As at September 30, 2022, we estimated the sensitivity of our net income attributed to shareholders to a 50 basis point parallel decline in interest rates to be neutral, and to a 50 basis point parallel increase in interest rates to be neutral.

The table below shows the potential impact on net income attributed to shareholders from a 50 basis point parallel move in interest rates. This includes a change of 50 basis points 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, and with a floor of zero on government rates where government rates are not currently negative (currently zero floor applies to all countries we operate in except Japan), relative to the rates assumed in the valuation of policy liabilities, including embedded derivatives. For variable annuity guarantee liabilities that are dynamically hedged, it is assumed that interest rate hedges are rebalanced at 20 basis point intervals.

As the sensitivity to a 50 basis point change in interest rates includes any associated change in the applicable reinvestment scenarios, the impact of changes to interest rates for less than, or more than 50 basis points is unlikely to be linear. Furthermore, our sensitivities are not consistent across all regions in which we operate, and the impact of yield curve changes will vary depending upon the geography where the change occurs. Reinvestment assumptions used in the valuation of policy liabilities tend to amplify the negative effects of a decrease in interest rates and dampen the positive effects of interest rate increases. This is because the reinvestment assumptions used in the valuation of our insurance liabilities are based on interest rate scenarios and calibration criteria set by the Canadian Actuarial Standards Board. Therefore, in any particular quarter, changes to the reinvestment assumptions are not fully aligned to changes in current market interest rates especially when there is a significant change in the shape of the interest rate curve. As a result, the impact from non-parallel movements may be materially different from the estimated impact of parallel movements. For example, if long-term interest rates increase more than short-term interest rates (sometimes referred to as a steepening of the yield curve) in North America, the decrease in the value of our swaps may be greater than the decrease in the value of our insurance liabilities. This could result in a charge to net income attributed to shareholders in the short-term even though the rising and steepening of the yield curve, if sustained, may have a positive long-term economic impact.

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 impact on net income attributed to shareholders does not take into account any future potential changes to our ultimate reinvestment rate ("URR") assumptions or calibration criteria for stochastic risk-free rates. At September 30, 2022, we estimated the sensitivity of our net income attributed to shareholders to a 10 basis point reduction in the ultimate reinvestment rate ("URR") in all geographies, and a corresponding change to stochastic risk-free modeling, to be a charge of \$300 million (post-tax); and note that the impact of changes to the URR are not linear. The long-term URR for risk-free rates in Canada is prescribed at 2.9% and we use the same assumption for the U.S. Our assumption for Japan is 1.5%.

The potential impact on net income attributable to shareholders does not take into account other potential impacts of lower interest rate levels, for example, increased strain on the sale of new business or lower interest earned on our surplus assets. The impact on net income attributed to shareholders also does not reflect any unrealized gains or losses on AFS fixed income assets held in our Corporate and Other segment. Changes in the market value of these assets may provide a natural economic offset to the interest rate risk arising from our product liabilities. In order for there to also be an accounting offset, the Company would need to realize a portion of the AFS fixed income asset unrealized gains or losses. It is not certain we would realize any of the unrealized gains or losses available.

The impact does not reflect any potential effect of changing interest rates to the value of our ALDA assets. Rising interest rates could negatively impact the value of our ALDA (see "Critical Actuarial and Accounting Policies – Fair

Value of Invested Assets”, on page 95 of our 2021 Annual Report). More information on ALDA assets can be found under the section C5 “Alternative long-duration asset performance risk”.

Under LICAT, changes in unrealized gains or losses in our AFS bond portfolio resulting from interest rate shocks tend to dominate capital sensitivities. As a result, the reduction in interest rates improves LICAT ratios and vice-versa.

The following table shows the potential impact on net income attributed to shareholders as well as the change in the market value of AFS fixed income assets held in our Corporate and Other segment, which could be realized through the sale of these assets.

Potential impact on net income attributed to shareholders and MLI’s LICAT ratio of an immediate parallel change in interest rates relative to rates assumed in the valuation of policy liabilities^{(1),(2),(3),(4)}

As at	September 30, 2022		December 31, 2021	
	-50bp	+50bp	-50bp	+50bp
Net income attributed to shareholders (\$ millions)	\$ nil	\$ nil	\$ (200)	\$ nil
Changes in other comprehensive income from fair value changes in AFS fixed income assets held in the Corporate and Other segment (\$ millions)	1,600	(1,400)	2,100	(1,900)
MLI’s LICAT ratio (change in percentage points) ⁽⁵⁾	3	(3)	5	(4)

- (1) See “Caution related to sensitivities” above. In addition, estimates exclude changes to the net actuarial gains/losses with respect to the Company’s pension obligations as a result of changes in interest rates, as the impact on the quoted sensitivities is not considered to be material.
- (2) 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.
- (3) The amount of gain or loss that can be realized on AFS fixed income assets held in the Corporate and Other segment will depend on the aggregate amount of unrealized gain or loss.
- (4) Sensitivities are based on projected asset and liability cash flows and the impact of realizing fair value changes in AFS fixed income is based on the holdings at the end of the period.
- (5) LICAT impacts include realized and unrealized fair value changes in AFS fixed income assets. LICAT impacts do not reflect the impact of the scenario switch discussed below.

The following tables show the potential impact on net income attributed to shareholders resulting from a change in corporate spreads and swap spreads over government bond rates for all maturities across all markets with a floor of zero on the total interest rate, relative to the spreads assumed in the valuation of policy liabilities.

Potential impact on net income attributed to shareholders and MLI’s LICAT ratio arising from changes to corporate spreads and swap spreads relative to spreads assumed in the valuation of policy liabilities^{(1),(2),(3)}

Corporate spreads ^{(4),(5)}	September 30, 2022		December 31, 2021	
	-50bp	+50bp	-50bp	+50bp
As at				
Net income attributed to shareholders (\$ millions) ⁽⁶⁾	\$ nil	\$ nil	\$ (600)	\$ 500
MLI’s LICAT ratio (change in percentage points) ⁽⁷⁾	(3)	3	(3)	4

Swap spreads	September 30, 2022		December 31, 2021	
	-20bp	+20bp	-20bp	+20bp
As at				
Net income attributed to shareholders (\$ millions)	\$ 100	\$ nil	\$ nil	\$ nil
MLI’s LICAT ratio (change in percentage points) ⁽⁷⁾	nil	nil	nil	nil

- (1) See “Caution related to sensitivities” above.
- (2) The impact on net income attributed to shareholders assumes no gains or losses are realized on our AFS fixed income assets held in the Corporate and Other segment and excludes the impact of changes in segregated fund bond values due to changes in credit spreads. The participating policy funds are largely self-supporting and generate no material impact on net income attributed to shareholders as a result of changes in corporate and swap spreads.
- (3) Sensitivities are based on projected asset and liability cash flows.
- (4) Corporate spreads are assumed to grade to the long-term average over five years.
- (5) As the sensitivity to a 50 basis point decline in corporate spreads includes the impact of a change in deterministic reinvestment scenarios where applicable, the impact of changes to corporate spreads for less than, or more than, the amounts indicated are unlikely to be linear.
- (6) The sensitivity on net income attributed to shareholders due to changes in corporate spreads decreased significantly as at September 30, 2022 compared with December 31, 2021, as the rise in risk-free interest rates reduced projected reinvestments in the actuarial valuation models.
- (7) LICAT impacts include realized and unrealized fair value change in AFS fixed income assets. Under LICAT, spread movements are determined from a selection of investment grade bond indices with BBB and better bonds for each jurisdiction. For LICAT, we use the following indices: FTSE TMX Canada All Corporate Bond Index, Barclays USD Liquid Investment Grade Corporate Index, and Nomura-BPI (Japan). LICAT impacts presented for corporate spreads do not reflect the impact of the scenario switch discussed below.

LICAT Scenario Switch

Typically, a reduction in interest rates improves LICAT ratios and vice-versa. However, when interest rates decline past a certain threshold, reflecting the combined movement in risk-free rates and corporate spreads, a different prescribed interest rate stress scenario needs to be taken into account in the LICAT ratio calculation in accordance with OSFI guidelines for LICAT.

The LICAT guideline specifies four stress scenarios for interest rates and prescribes the methodology to determine the most adverse scenario to apply for each LICAT geographic region¹ based on current market inputs and the Company's balance sheet.

With the rise in interest rates in 2022, the probability of a scenario switch has decreased significantly. In a lower interest rate environment, we would estimate the incremental impact of a potential switch in the scenarios to be approximately a one-time six percentage point decrease in MLI's LICAT ratio. Should a scenario switch be triggered in a LICAT geographic region, the full impact would be reflected immediately for non-participating products while the impact for participating products would be reflected over six quarters using a rolling average of interest rate risk capital, in line with the smoothing approach prescribed in the OSFI Advisory effective January 1, 2021.

The potential negative impact of a switch in scenarios is not reflected in the stated risk-free rate and corporate spread sensitivities, as it is a one-time impact. After this one-time event, further decreases in risk-free interest rates would continue to improve the LICAT capital position, similar to the sensitivity above.

The level of interest rates and corporate spreads that would trigger a switch in the scenarios is dependent on market conditions and movements in the Company's asset and liability position. The scenario switch, if triggered, could reverse in response to subsequent increases in interest rates and/or corporate spreads.

C5 Alternative long-duration asset performance risk

The following table shows the potential impact on net income attributed to shareholders resulting from an immediate 10% change in market values of ALDA followed by a return to the expected level of growth assumed in the valuation of policy liabilities. If market values were to remain flat for an entire year, the potential impact would be roughly equivalent to an immediate decline in market values equal to the expected level of annual growth assumed in the valuation of policy liabilities. Further, if after market values dropped 10% they continued to decline, remained flat, or grew more slowly than assumed in the valuation of policy liabilities, the potential impact on net income attributed to shareholders could be considerably more than shown. Refer to section D3 "Sensitivity of earnings to asset related assumptions", for more information on the level of growth assumed and on the net income sensitivity to changes in these long-term assumptions.

ALDA includes commercial real estate, timber and farmland real estate, infrastructure, and private equities, some of which relate to oil and gas.

¹ LICAT geographic locations include North America, the United Kingdom, Europe, Japan, and Other Region.

Potential impact on net income attributed to shareholders and MLI LICAT ratio arising from changes in ALDA returns relative to returns assumed in the valuation of policy liabilities ^{(1),(2),(3),(4),(5),(6)}

As at (\$ millions)	September 30, 2022		December 31, 2021	
	-10%	+10%	-10%	+10%
Net income attributed to shareholders				
Real estate, agriculture and timber assets	\$ (1,300)	\$ 1,300	\$ (1,400)	\$ 1,400
Private equities and other ALDA	(1,600)	1,500	(1,900)	1,800
Total⁽⁷⁾	\$ (2,900)	\$ 2,800	\$ (3,300)	\$ 3,200
MLI's LICAT ratio (change in percentage points)	(3)	2	(4)	3

(1) See "Caution Related to Sensitivities" above.

(2) This impact is calculated as at a point-in-time impact and does not include: (i) any potential impact on ALDA weightings; or (ii) any gains or losses on ALDA held in the Corporate and Other segment.

(3) The participating policy funds are largely self-supporting and generate no material impact on net income attributed to shareholders as a result of changes in ALDA returns. For some classes of ALDA, where there is not an appropriate long-term benchmark available, the return assumptions used in valuation are not permitted by the Standards of Practice and CIA guidance to result in a lower reserve than an assumption based on a historical return benchmark for public equities in the same jurisdiction.

(4) Net income impact does not consider any impact of the market correction on assumed future return assumptions.

(5) Please refer to section D3 "Sensitivity of earnings to asset related assumptions" for more information on the level of growth assumed and on the net income sensitivity to changes in these long-term assumptions.

(6) The impact of changes to the portfolio asset mix supporting our North American legacy businesses are reflected in the sensitivities when the changes take place.

(7) The decrease in net income sensitivity under each ALDA returns scenario was primarily driven by the increase in fixed income yields since December 31, 2021.

This led to higher fixed income reinvestment rates relative to ALDA returns, which decreases the ALDA sensitivity because more fixed income assets are held compared to ALDA.

C6 Credit risk exposure measures

Allowances for losses on loans are established taking into consideration normal historical credit loss levels and future expectations, with an allowance for adverse deviations. Additionally, we make general provisions for credit losses from future asset impairments in the determination of policy liabilities. The amount of the provision for credit losses included in policy liabilities is established through regular monitoring of all credit related exposures, considering such information as general market conditions, industry and borrower specific credit events and any other relevant trends or conditions. To the extent that an asset is written off, or disposed of, any allowance and general provisions for credit losses are released.

Our general provision for credit losses included in policyholder liabilities as at September 30, 2022 was \$3,699 million compared with \$4,109 million as at December 31, 2021. The decline in the provision compared with December 31, 2021 is primarily due to the impact of higher interest rates. This provision represents 1.4% of our fixed income assets¹ supporting policy liabilities reported on our Consolidated Statements of Financial Position as at September 30, 2022.

The impact of a 50% increase in fixed income credit default rates over the next year in excess of the rates assumed in policy liabilities would reduce net income attributed to shareholders by \$75 million and \$70 million, respectively, as at September 30, 2022 and December 31, 2021.

Credit downgrades of fixed income investments would adversely impact our regulatory capital, as required capital levels for these investments are based on the credit quality of each instrument. In addition, credit downgrades could also lead to a higher general provision for credit losses than had been assumed in policy liabilities, resulting in an increase in policy liabilities and a reduction in net income attributed to shareholders. The estimated impact of a one-notch² ratings downgrade across 25% of fixed income assets would result in an increase to policy liabilities and a decrease to our net income attributed to shareholders of \$250 million post-tax. This ratings downgrade would result in a one percentage point reduction to our LICAT ratio.

Approximately 19% of the impact from the one-notch ratings downgrade on our policy liabilities and net income attributed to shareholders noted above relates to fixed income assets rated below investment grade.

Approximately 1% of our fixed income assets as of September 30, 2022 is rated below investment grade.

¹ Includes debt securities, private placements and mortgages.

² A one-notch downgrade is equivalent to a ratings downgrade from A to A- or BBB- to BB+.

The table below shows net impaired assets and allowances for loan losses.

Net impaired assets and loan losses

As at (\$ millions, unless otherwise stated)	September 30, 2022	December 31, 2021
Net impaired fixed income assets	\$ 303	\$ 228
Net impaired fixed income assets as a % of total invested assets	0.074%	0.053%
Allowance for loan losses	\$ 52	\$ 44

C7 Risk factors – strategic risk from changes in tax laws¹

As noted in “Risk Management and Risk Factors – Strategic Risk Factors” in the MD&A in our 2021 Annual Report, we outlined risk factors that could impact on our financial plans and ability to implement our business strategy. The macro-economic environment can be significantly impacted by the actions of both the government sector, including central banks, and the private sector. Changes in tax laws, tax regulations, or interpretations of such laws or regulations could make some of our products less attractive to consumers, could increase our corporate taxes or cause us to change the value of our deferred tax assets and liabilities as well as our tax assumptions included in the valuation of our policy liabilities. This could have a material adverse effect on our business, results of operations and financial condition.

- In 2021, 136 of the 140 members of the Organization for Economic Co-Operation and Development (“OECD”) / G20 Inclusive Framework agreed on a two-pillar solution to address tax challenges from the digital economy, and to close the gaps in international tax systems. These include a new approach to allocating certain profits of multinational entities amongst countries and a global minimum income tax rate of 15%. These rules are targeted to be effective in 2023, pending release of implementation guidelines, enactment of domestic tax laws and amendment of bilateral tax treaties beforehand. On April 7, 2022, the Canadian government reaffirmed its commitment to the two-pillar solution in its 2022 Budget statement. The Company is closely monitoring developments and potential impacts and, in particular, for issues unique to the insurance industry. If enacted, we expect an increase in the effective tax rate, pending further details on timing and specific implementation in both Canada and other affected countries.
- Canada’s 2022 Budget statement also provided clarity on how the one-time Canada Recovery Dividend and permanent corporate tax rate increase for certain financial institutions would be applied. Both tax measures are expected to apply to Canada’s insurance and banking operations. Draft legislation was released for consultation on August 9, 2022. The proposed form of the Canada Recovery Dividend is a one-time 15% tax applicable to the average taxable income for 2020 and 2021 in excess of \$1 billion and is not expected to be a material cost to the Company. Upon substantive enactment in 2022, the 1.5% corporate tax rate increase on Canadian taxable income over \$100 million is estimated to have an immediate favourable impact on the value of our existing deferred tax asset, offset over time by a slight increase to our effective tax rate as future Canadian insurance and banking earnings are taxed at the new higher federal corporate tax rate of 16.5%.
- The August 9, 2022 draft legislation also provided proposed rules to govern the transition to IFRS 17 for Canadian tax purposes. The five-year transition period for both insurance reserves and revaluations of investments under IFRS 9 should generally smooth the current tax impact of the change in accounting standard but is not expected to have a material effect on the Company’s annual cash tax payable.
- The U.S. Inflation Reduction Act of 2022 was signed into law on August 16, 2022, which includes a 15% minimum tax based on financial statement income, effective starting in 2023. Many related regulations remain to be drafted to clarify how the tax will operate, but at this time we do not expect our IFRS effective tax rate to be materially affected by this new tax, though the timing of cash tax payments could be accelerated.

¹ See “Caution regarding forward-looking statements” below.

D CRITICAL ACTUARIAL AND ACCOUNTING POLICIES

D1 Critical actuarial and accounting policies

Our significant accounting policies are described in note 1 to our Consolidated Financial Statements for the year ended December 31, 2021. The critical actuarial and accounting policies and estimation processes relate to the determination of insurance and investment contract liabilities, assessment of control over other entities for consolidation, estimation of fair value of invested assets, evaluation of invested asset impairment, accounting for derivative financial instruments, determination of pension and other post-employment benefit obligations and expenses, accounting for income taxes and uncertain tax positions and valuation and impairment of goodwill and intangible assets starting on page 87 of our 2021 Annual Report.

D2 Actuarial methods and assumptions

A comprehensive review of actuarial methods and assumptions is performed annually. The review is designed to reduce the Company's exposure to uncertainty by ensuring assumptions for both asset and liability related risks remain appropriate. This is accomplished by monitoring experience and selecting assumptions which represent a current best estimate view of expected future experience, and margins for adverse deviations 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 changes in the economic environment are likely to result in future changes to the actuarial assumptions, which could materially impact the measurement of insurance contract liabilities.

The completion of the 2022 annual review of actuarial methods and assumptions resulted in a decrease in insurance contract liabilities, net of reinsurance, of \$80 million, and a net gain to net income attributed to shareholders of \$36 million post-tax.

For the three and nine months ended September 30, 2022 (\$ millions)	Change in insurance contract liabilities, net of reinsurance			Change in net income attributed to shareholders (post-tax)
	Total	Attributed to participating policyholders' account ⁽¹⁾	Attributed to shareholders' account	
Long-term care triennial review	\$ 19	\$ -	\$ 19	\$ (15)
Mortality and morbidity updates	157	(5)	162	(126)
Lapses and policyholder behaviour updates	317	74	243	(192)
Investment related updates	(210)	(1)	(209)	157
Other updates	(363)	(145)	(218)	212
Net impact	\$ (80)	\$ (77)	\$ (3)	\$ 36

⁽¹⁾ The change in insurance contract liabilities, net of reinsurance, attributable to the participating policyholders' account was primarily driven by an increase in expected long-term interest rates within the valuation models to reflect the higher interest rate environment, partially offset by the lapse assumption update in Canada.

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 resulted in a net \$15 million post-tax charge to net income attributed to shareholders.

The experience study showed that claim costs established in our last triennial review remain appropriate in aggregate for our older blocks of business¹ supported by robust claims data on this mature block. Insurance contract liabilities were strengthened for claim costs on our newer block of business². This was driven by lower active life mortality³ 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 the current year. We also reviewed and updated incidence and claim termination assumptions which, on a net basis, provided a partial offset to the increase in insurance contract liabilities on active life mortality and utilization. In addition, some

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.

policyholders are electing to reduce their benefits in lieu of paying increased premiums which resulted in a reduction in insurance contract liabilities. The overall claims experience review led to a post-tax charge to net income attributed to shareholders of approximately \$2.3 billion (US\$1.7 billion).

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, we have 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 our insurance contract liabilities at that time and demonstrates our continued strong track record of progress in securing premium rate increases.¹ In 2022, the review of future premium increases assumed in insurance contract liabilities resulted in a post-tax gain to net income attributed to shareholders of approximately \$2.1 billion (US\$1.6 billion), in comparison to a total estimated ask of \$6.7 billion (US\$5.1 billion). This reflects expected future premium increases that are due to our 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. Our assumptions reflect the estimated timing and amount of state approved premium increases.

Other refinements to LTC valuation resulted in a post-tax gain of approximately \$0.2 billion (US\$0.2 billion) to net income attributed to shareholders.

Mortality and morbidity updates

Mortality and morbidity updates resulted in a \$126 million post-tax charge to net income attributed to shareholders, driven by a detailed review of the mortality and morbidity assumptions for our Canada insurance business, and by updates to morbidity assumptions in Vietnam to align with experience.

Lapses and policyholder behaviour updates

Updates to lapses and policyholder behaviour assumptions resulted in a \$192 million post-tax charge to net income attributed to shareholders.

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

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

Investment-related updates

Updates to investment return assumptions resulted in a \$157 million post-tax gain to net income attributed to shareholders, primarily driven by annual updates to our valuation models to reflect market movements during the year. No changes were made to our long-term assumed returns.

Other updates

Other updates resulted in a \$212 million post-tax gain to net income attributed to shareholders, which included refinements to the projection of our tax and liability cash flows, as well as various other modelling updates.

Impact of changes in actuarial methods and assumptions by segment

The impact of changes in actuarial methods and assumptions in Canada resulted in a \$35 million post-tax gain to net income attributed to shareholders. The gain was primarily driven by refinements to our valuation models, due to annual updates to reflect market movements during the year, partially offset by updates of mortality and morbidity assumptions for our insurance business and lapse assumptions for certain term insurance products.

The impact of changes in actuarial methods and assumptions in the U.S. resulted in a \$36 million post-tax gain, driven by refinements to our valuation models, due to annual updates to reflect market movements during the year. The triennial review of long-term care was net neutral overall.

¹ Our actual experience obtaining premium increases could be materially different than what we have assumed, resulting in further increases or decreases in insurance contract liabilities, which could be material. See "Caution regarding forward-looking statements" below.

The impact of changes in actuarial methods and assumptions in Asia resulted in a \$45 million post-tax charge to net income attributed to shareholders. The charge was primarily driven by updates to lapse assumptions in Singapore and morbidity updates in Vietnam, partially offset by refinements to the projection of tax and liability cash flows in Vietnam.

The impact of changes in actuarial methods and assumptions in Corporate and Other (which includes our Reinsurance businesses) resulted in a \$10 million post-tax gain to net income attributed to shareholders.

D3 Sensitivity of earnings to asset related assumptions

When the assumptions underlying our determination of policy liabilities are updated to reflect recent and emerging experience or change in outlook, the result is a change in the value of policy liabilities which in turn affects net income attributed to shareholders. The sensitivity of net income attributed to shareholders to changes in certain asset related assumptions underlying policy liabilities is shown below and assumes that there is a simultaneous change in the assumptions across all business units.

For changes in asset related assumptions, the sensitivity is shown net of the corresponding impact on net income attributed to shareholders of the change in the value of the assets supporting policy liabilities. In practice, experience for each assumption will frequently vary by geographic market and business, and assumption updates are made on a business/geographic specific basis. Actual results can differ materially from these estimates for a variety of reasons including the interaction among these factors when more than one changes, changes in actuarial and investment return and future investment activity assumptions, actual experience differing from the assumptions, changes in business mix, effective tax rates and other market factors, and the general limitations of our internal models.

Potential impact on net income attributed to shareholders arising from changes to asset related assumptions supporting actuarial liabilities

As at (\$ millions)	Increase (decrease) in after-tax net income attributed to shareholders			
	September 30, 2022		December 31, 2021	
	Increase	Decrease	Increase	Decrease
Asset related assumptions updated periodically in valuation basis changes				
100 basis point change in future annual returns for public equities ⁽¹⁾	\$ 400	\$ (400)	\$ 500	\$ (500)
100 basis point change in future annual returns for ALDA ⁽²⁾	3,300	(3,600)	3,900	(4,700)
100 basis point change in equity volatility assumption for stochastic segregated fund modelling ⁽³⁾	(100)	100	(200)	200

⁽¹⁾ The sensitivity to public equity returns above includes the impact on both segregated fund guarantee reserves and on other policy liabilities. Expected long-term annual market growth assumptions for public equities are based on long-term historical observed experience and compliance with actuarial standards. As at September 30, 2022, the growth rates inclusive of dividends in the major markets used in the stochastic valuation models for valuing segregated fund guarantees are 9.0% per annum in Canada, 9.6% per annum in the U.S. and 6.2% per annum in Japan. Growth assumptions for European equity funds are market-specific and vary between 8.3% and 9.9%.

⁽²⁾ ALDA include commercial real estate, timber, farmland, infrastructure and private equities, some of which relate to oil and gas. Expected long-term return assumptions for ALDA and public equity are set in accordance with the Standards of Practice for the valuation of insurance contract liabilities and guidance published by the CIA. Annual best estimate return assumptions for ALDA and public equity include market growth rates and annual income, such as rent, production proceeds and dividends, and will vary based on our holding period. As of September 30, 2022, over a 20-year horizon, our best estimate return assumptions range between 5.25% and 11.5%, with an average of 9.2% based on the current asset mix backing our guaranteed insurance and annuity business. As of September 30, 2022, our return assumptions including the margins for adverse deviations in our valuation, which take into account the uncertainty of achieving the returns, range between 2.5% and 7.5%, with an average of 6.0% based on the asset mix backing our guaranteed insurance and annuity business.

⁽³⁾ Volatility assumptions for public equities are based on long-term historical observed experience and compliance with actuarial standards. As of September 30, 2022, the resulting volatility assumptions are 16.5% per annum in Canada and 17.1% per annum in the U.S. for large-cap public equities, and 19.1% per annum in Japan. For European equity funds, the volatility varies between 16.3% and 17.7%.

D4 Accounting and reporting changes

For accounting and reporting changes during the quarter, refer to note 2 of our unaudited Interim Consolidated Financial Statements for the three and nine months ended September 30, 2022.

E OTHER

E1 Outstanding common shares - selected information

As at October 31, 2022, MFC had 1,883,636,606 common shares outstanding.

E2 Legal and regulatory proceedings

We are regularly involved in legal actions, both as a defendant and as a plaintiff. Information on legal and regulatory proceedings can be found in note 12 of our unaudited Interim Consolidated Financial Statements for the three and nine months ended September 30, 2022.

E3 Non-GAAP and other financial measures

The Company prepares its Consolidated Financial Statements in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board. We use a number of non-GAAP and other financial measures to evaluate overall performance and to assess each of our businesses. This section includes information required by National Instrument 52-112 – *Non-GAAP and Other Financial Measures Disclosure* in respect of “specified financial measures” (as defined therein).

Non-GAAP financial measures include core earnings (loss); pre-tax core earnings; core earnings available to common shareholders; core earnings before income taxes, depreciation and amortization (“core EBITDA”); core general expenses; Manulife Bank net lending assets; Manulife Bank average net lending assets; assets under management (“AUM”); assets under management and administration (“AUMA”); Global WAM managed AUMA; and net annualized fee income. In addition, non-GAAP financial measures include the following stated on a constant exchange rate (“CER”) basis: any of the foregoing non-GAAP financial measures; Global WAM revenue; net income attributed to shareholders; and common shareholders’ net income.

Non-GAAP ratios include core ROE; diluted core earnings per common share (“core EPS”); common share core dividend payout ratio (“dividend payout ratio”); expense efficiency ratio; core EBITDA margin; effective tax rate on core earnings and net fee income yield. In addition, non-GAAP ratios include the percentage growth/decline on a CER basis in any of the above non-GAAP financial measures; Global WAM revenue; net income attributed to shareholders; common shareholders’ net income; pre-tax net income attributed to shareholders; general expenses; basic earnings per common share (“basic EPS”); and diluted earnings per common share (“diluted EPS”).

Other specified financial measures include assets under administration (“AUA”); consolidated capital; new business value (“NBV”); new business value margin (“NBV margin”); sales; annualized premium equivalent (“APE”) sales; gross flows; net flows; average assets under management and administration (“average AUMA”), Global WAM average managed AUMA; average assets under administration; remittances; any of the foregoing specified financial measures stated on a CER basis; and percentage growth/decline in any of the foregoing specified financial measures on a CER basis.

Non-GAAP financial measures and non-GAAP ratios are not standardized financial measures under GAAP and, therefore, might not be comparable to similar financial measures disclosed by other issuers. Therefore, they should not be considered in isolation or as a substitute for any other financial information prepared in accordance with GAAP.

Core earnings (loss) is a financial measure which we believe aids investors in better understanding the long-term earnings capacity and valuation of the business. Core earnings allows investors to focus on the Company’s operating performance by excluding the direct impact of changes in equity markets and interest rates, changes in actuarial methods and assumptions as well as a number of other items, outlined below, that we believe are material, but do not reflect the underlying earnings capacity of the business. For example, due to the long-term nature of our business, the mark-to-market movements of equity markets, interest rates, foreign currency exchange rates and commodity prices from period-to-period can, and frequently do, have a substantial impact on the reported amounts of our assets, liabilities and net income attributed to shareholders. These reported amounts are not actually realized at the time and may never be realized if the markets move in the opposite direction in a subsequent period. This makes it very difficult for investors to evaluate how our businesses are performing from period-to-period and to compare our performance with other issuers.

We believe that core earnings better reflect the underlying earnings capacity and valuation of our business. We use core earnings as the basis for management planning and reporting and, along with net income attributed to

shareholders, as a key metric used in our short and mid-term incentive plans at the total Company and operating segment level. We also base our mid and long-term strategic priorities on core earnings.

While core earnings is relevant to how we manage our business and offers a consistent methodology, it is not insulated from macro-economic factors which can have a significant impact. See below for reconciliation of core earnings to net income attributed to shareholders and income before income taxes. Net income attributed to shareholders excludes net income attributed to participating policyholders and non-controlling interests.

The items included in core earnings and items excluded from core earnings are determined in accordance with the methodology under OSFI's Source of Earnings Disclosure (Life Insurance Companies) guideline and are listed below.

Any future changes to the core earnings definition referred to below, will be disclosed.

Items included in core earnings:

1. Expected earnings on in-force policies, including expected release of provisions for adverse deviation, fee income, margins on group business and spread business such as Manulife Bank and asset fund management.
2. Macro hedging costs based on expected market returns.
3. New business strain and gains.
4. Policyholder experience gains or losses.
5. Acquisition and operating expenses compared with expense assumptions used in the measurement of policy liabilities.
6. Up to \$400 million of net favourable investment-related experience reported in a single year, which are referred to as "core investment gains". This means up to \$100 million in the first quarter, up to \$200 million on a year-to-date basis in the second quarter, up to \$300 million on a year-to-date basis in the third quarter and up to \$400 million on a full year basis in the fourth quarter. Any investment-related experience losses reported in a quarter will be offset against the net year-to-date investment-related experience gains with the difference being included in core earnings subject to a maximum of the year-to-date core investment gains and a minimum of zero, which reflects our expectation that investment-related experience will be positive through-the-business cycle. To the extent any investment-related experience losses cannot be fully offset in a quarter they will be carried forward to be offset against investment-related experience gains in subsequent quarters in the same year, for purposes of determining core investment gains. Investment-related experience relates to fixed income investing, ALDA returns, credit experience and asset mix changes other than those related to a strategic change. An example of a strategic asset mix change is outlined below.
 - This favourable and unfavourable investment-related experience is a combination of reported investment experience as well as the impact of investing activities on the measurement of our policy liabilities. We do not attribute specific components of investment-related experience to amounts included or excluded from core earnings.
 - The \$400 million threshold represents the estimated average annualized amount of net favourable investment-related experience that the Company reasonably expects to achieve through-the-business cycle based on historical experience. It is not a forecast of expected net favourable investment-related experience for any given fiscal year.
 - Our average net annualized investment-related experience, including core investment gains, calculated from the introduction of core earnings in 2012 to the end of 2021 was \$546 million (2012 to the end of 2020 was \$380 million).
 - The decision announced on December 22, 2017 to reduce the allocation to ALDA in the portfolio asset mix supporting our legacy businesses was the first strategic asset mix change since we introduced the core earnings metric in 2012. We refined our description of investment-related experience in 2017 to note that asset mix changes other than those related to a strategic change are taken into consideration in the investment-related experience component of core investment gains.

- While historical investment return time horizons may vary in length based on underlying asset classes generally exceeding 20 years, for purposes of establishing the threshold, we look at a business cycle that is five or more years and includes a recession. We monitor the appropriateness of the threshold as part of our annual five-year planning process and would adjust it, either to a higher or lower amount, in the future if we believed that our threshold was no longer appropriate.
- Specific criteria used for evaluating a potential adjustment to the threshold may include, but are not limited to, the extent to which actual investment-related experience differs materially from actuarial assumptions used in measuring insurance contract liabilities, material market events, material dispositions or acquisitions of assets, and regulatory or accounting changes.

Core investment gains are reported in the Corporate and Other segment, with an offsetting adjustment to investment-related experience gains and losses in items excluded from core earnings.

7. Earnings on surplus other than mark-to-market items. Gains on available-for-sale (“AFS”) equities and seed money investments in segregated and mutual funds are included in core earnings.
8. Routine or non-material legal settlements.
9. All other items not specifically excluded.
10. Tax on the above items.
11. All tax related items except the impact of enacted or substantively enacted income tax rate changes.

Items excluded from core earnings:

1. The direct impact of equity markets and interest rates and variable annuity guarantee liabilities includes the items listed below.
 - The earnings impact of the difference between the net increase (decrease) in variable annuity liabilities that are dynamically hedged and the performance of the related hedge assets. Our variable annuity dynamic hedging strategy is not designed to completely offset the sensitivity of insurance and investment contract liabilities to all risks or measurements associated with the guarantees embedded in these products for a number of reasons, including: provisions for adverse deviation, fund performance, the portion of the interest rate risk that is not dynamically hedged, realized equity and interest rate volatilities and changes to policyholder behaviour.
 - Gains (charges) on variable annuity guarantee liabilities not dynamically hedged.
 - Gains (charges) on general fund equity investments supporting policy liabilities and on fee income.
 - Gains (charges) on macro equity hedges relative to expected costs. The expected cost of macro hedges is calculated using the equity assumptions used in the valuation of insurance and investment contract liabilities.
 - Gains (charges) on higher (lower) fixed income reinvestment rates assumed in the valuation of insurance and investment contract liabilities.
 - Gains (charges) on sale of AFS bonds and open derivatives not in hedging relationships in the Corporate and Other segment.
2. Net favourable investment-related experience in excess of \$400 million per annum or net unfavourable investment-related experience on a year-to-date basis.
3. Mark-to-market gains or losses on assets held in the Corporate and Other segment other than gains on AFS equities and seed money investments in new segregated or mutual funds.
4. Changes in actuarial methods and assumptions. As noted in the “Critical actuarial and accounting policies” section of our 2021 MD&A, policy liabilities for IFRS are valued in Canada under standards established by the Actuarial Standards Board. The standards require a comprehensive review of actuarial methods and assumptions to be performed annually. The review is designed to reduce the Company’s exposure to uncertainty by ensuring assumptions for both asset related and liability related risks remain appropriate and is accomplished by monitoring experience and selecting assumptions which represent a current best estimate

view of expected future experience, and margins that are appropriate for the risks assumed. Changes related to ultimate reinvestment rates (“URR”) are included in the direct impact of equity markets and interest rates and variable annuity guarantee liabilities. By excluding the results of the annual reviews, core earnings assist investors in evaluating our operational performance and comparing our operational performance from period to period with other global insurance companies because the associated gain or loss is not reflective of current year performance and not reported in net income in most actuarial standards outside of Canada.

5. The impact on the measurement of policy liabilities of changes in product features or new reinsurance transactions, if material.
6. Goodwill impairment charges.
7. Gains or losses on disposition of a business.
8. Material one-time only adjustments, including highly unusual/extraordinary and material legal settlements or other items that are material and exceptional in nature.
9. Tax on the above items.
10. Net income (loss) attributed to participating policyholders and non-controlling interests.
11. Impact of enacted or substantially enacted income tax rate changes.

Reconciliation of core earnings to net income attributed to shareholders

	3Q22					
(\$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total
Income (loss) before income taxes	\$ 476	\$ 819	\$ 766	\$ 395	\$ (819)	\$ 1,637
Income tax (expense) recovery						
Core earnings	(61)	(116)	(62)	(50)	18	(271)
Items excluded from core earnings	2	(75)	(52)	-	64	(61)
Income tax (expense) recovery	(59)	(191)	(114)	(50)	82	(332)
Net income (post-tax)	417	628	652	345	(737)	1,305
Less: Net income (post-tax) attributed to						
Non-controlling interests	(19)	-	-	-	1	(18)
Participating policyholders	(85)	50	11	-	-	(24)
Net income (loss) attributed to shareholders (post-tax)	521	578	641	345	(738)	1,347
Less: Items excluded from core earnings ⁽¹⁾						
Investment-related experience outside of core earnings	(3)	97	127	-	(96)	125
Direct impact of equity markets and interest rates and variable annuity guarantee liabilities	95	96	137	-	(382)	(54)
Change in actuarial methods and assumptions	(45)	35	36	-	10	36
Restructuring charge	-	-	-	-	-	-
Reinsurance transactions, tax related items and other	(39)	-	(43)	-	-	(82)
Core earnings (post-tax)	\$ 513	\$ 350	\$ 384	\$ 345	\$ (270)	\$ 1,322
Income tax on core earnings (see above)	61	116	62	50	(18)	271
Core earnings (pre-tax)	\$ 574	\$ 466	\$ 446	\$ 395	\$ (288)	\$ 1,593

⁽¹⁾ These items are disclosed under OSFI's Source of Earnings Disclosure (Life Insurance Companies) guideline.

Core earnings, CER basis and U.S. dollars

	3Q22					
(Canadian \$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total
Core earnings (post-tax)	\$ 513	\$ 350	\$ 384	\$ 345	\$ (270)	\$ 1,322
CER adjustment ⁽¹⁾	-	-	-	-	-	-
Core earnings, CER basis (post-tax)	\$ 513	\$ 350	\$ 384	\$ 345	\$ (270)	\$ 1,322
Income tax on core earnings, CER basis ⁽²⁾	61	116	62	50	(18)	271
Core earnings, CER basis (pre-tax)	\$ 574	\$ 466	\$ 446	\$ 395	\$ (288)	\$ 1,593
Core earnings (U.S. dollars) - Asia and U.S. segments						
Core earnings (post-tax)⁽³⁾, US \$	\$ 394		\$ 294			
CER adjustment US \$ ⁽¹⁾	-		-			
Core earnings, CER basis (post-tax), US \$	\$ 394		\$ 294			

⁽¹⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

⁽²⁾ Income tax on core earnings adjusted to reflect the foreign exchange rates for the Statement of Income in effect for 3Q22.

⁽³⁾ Core earnings (post-tax) in Canadian \$ is translated to US \$ using the US \$ Statement of Income exchange rate for 3Q22.

Reconciliation of core earnings to net income attributed to shareholders

	2Q22						
(\$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total	
Income (loss) before income taxes	\$ 216	\$ 224	\$ 1,010	\$ 362	\$ (555)	\$ 1,257	
Income tax (expense) recovery							
Core earnings	(74)	(119)	(92)	(57)	4	(338)	
Items excluded from core earnings	44	64	(82)	-	54	80	
Income tax (expense) recovery	(30)	(55)	(174)	(57)	58	(258)	
Net income (post-tax)	186	169	836	305	(497)	999	
Less: Net income (post-tax) attributed to							
Non-controlling interests	(11)	-	-	-	-	(11)	
Participating policyholders	(164)	84	4	-	-	(76)	
Net income (loss) attributed to shareholders (post-tax)	361	85	832	305	(497)	1,086	
Less: Items excluded from core earnings ⁽¹⁾							
Investment-related experience outside of core earnings	80	86	591	-	(166)	591	
Direct impact of equity markets and interest rates and variable annuity guarantee liabilities	(232)	(346)	(215)	-	(274)	(1,067)	
Change in actuarial methods and assumptions	-	-	-	-	-	-	
Restructuring charge	-	-	-	-	-	-	
Reinsurance transactions, tax related items and other	-	-	-	-	-	-	
Core earnings (post-tax)	\$ 513	\$ 345	\$ 456	\$ 305	\$ (57)	\$ 1,562	
Income tax on core earnings (see above)	74	119	92	57	(4)	338	
Core earnings (pre-tax)	\$ 587	\$ 464	\$ 548	\$ 362	\$ (61)	\$ 1,900	

⁽¹⁾ These items are disclosed under OSFI's Source of Earnings Disclosure (Life Insurance Companies) guideline.

Core earnings, CER basis and U.S. dollars

	2Q22						
(Canadian \$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total	
Core earnings (post-tax)	\$ 513	\$ 345	\$ 456	\$ 305	\$ (57)	\$ 1,562	
CER adjustment ⁽¹⁾	3	-	10	4	1	18	
Core earnings, CER basis (post-tax)	\$ 516	\$ 345	\$ 466	\$ 309	\$ (56)	\$ 1,580	
Income tax on core earnings, CER basis ⁽²⁾	75	119	94	58	(5)	341	
Core earnings, CER basis (pre-tax)	\$ 591	\$ 464	\$ 560	\$ 367	\$ (61)	\$ 1,921	
Core earnings (U.S. dollars) - Asia and U.S. segments							
Core earnings (post-tax)⁽³⁾, US \$	\$ 401		\$ 357				
CER adjustment US \$ ⁽¹⁾	(6)		-				
Core earnings, CER basis (post-tax), US \$	\$ 395		\$ 357				

⁽¹⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

⁽²⁾ Income tax on core earnings adjusted to reflect the foreign exchange rates for the Statement of Income in effect for 3Q22.

⁽³⁾ Core earnings (post-tax) in Canadian \$ is translated to US \$ using the US \$ Statement of Income exchange rate for 2Q22.

Reconciliation of core earnings to net income attributed to shareholders

	1Q22					
(\$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total
Income (loss) before income taxes	\$ 681	\$ 880	\$ 2,577	\$ 386	\$ (813)	\$ 3,711
Income tax (expense) recovery						
Core earnings	(74)	(110)	(105)	(61)	26	(324)
Items excluded from core earnings	(11)	(115)	(405)	-	46	(485)
Income tax (expense) recovery	(85)	(225)	(510)	(61)	72	(809)
Net income (post-tax)	596	655	2,067	325	(741)	2,902
Less: Net income (post-tax) attributed to						
Non-controlling interests	20	-	-	1	-	21
Participating policyholders	(197)	108	-	-	-	(89)
Net income (loss) attributed to shareholders (post-tax)	773	547	2,067	324	(741)	2,970
Less: Items excluded from core earnings ⁽¹⁾						
Investment-related experience outside of core earnings	64	53	527	-	(86)	558
Direct impact of equity markets and interest rates and variable annuity guarantee liabilities	180	180	212	-	(475)	97
Change in actuarial methods and assumptions	-	-	-	-	-	-
Restructuring charge	-	-	-	-	-	-
Reinsurance transactions, tax related items and other	(8)	-	842	-	(71)	763
Core earnings (post-tax)	\$ 537	\$ 314	\$ 486	\$ 324	\$ (109)	\$ 1,552
Income tax on core earnings (see above)	74	110	105	61	(26)	324
Core earnings (pre-tax)	\$ 611	\$ 424	\$ 591	\$ 385	\$ (135)	\$ 1,876

⁽¹⁾ These items are disclosed under OSFI's Source of Earnings Disclosure (Life Insurance Companies) guideline.

Core earnings, CER basis and U.S. dollars

	1Q22					
(Canadian \$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total
Core earnings (post-tax)	\$ 537	\$ 314	\$ 486	\$ 324	\$ (109)	\$ 1,552
CER adjustment ⁽¹⁾	(7)	-	15	6	1	15
Core earnings, CER basis (post-tax)	\$ 530	\$ 314	\$ 501	\$ 330	\$ (108)	\$ 1,567
Income tax on core earnings, CER basis ⁽²⁾	73	110	108	61	(26)	326
Core earnings, CER basis (pre-tax)	\$ 603	\$ 424	\$ 609	\$ 391	\$ (134)	\$ 1,893
Core earnings (U.S. dollars) - Asia and U.S. segments						
Core earnings (post-tax)⁽³⁾, US \$	\$ 424		\$ 384			
CER adjustment US \$ ⁽¹⁾	(18)		-			
Core earnings, CER basis (post-tax), US \$	\$ 406		\$ 384			

⁽¹⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

⁽²⁾ Income tax on core earnings adjusted to reflect the foreign exchange rates for the Statement of Income in effect for 3Q22.

⁽³⁾ Core earnings (post-tax) in Canadian \$ is translated to US \$ using the US \$ Statement of Income exchange rate for 1Q22.

Reconciliation of core earnings to net income attributed to shareholders

	4Q21						
(\$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Asia	Canada	U.S.	Global WAM	Corporate and Other		Total
Income (loss) before income taxes	\$ 684	\$ 806	\$ 614	\$ 438	\$ (61)		\$ 2,481
Income tax (expense) recovery							
Core earnings	(68)	(101)	(117)	(52)	(8)		(346)
Items excluded from core earnings	(15)	(77)	(4)	2	10		(84)
Income tax (expense) recovery	(83)	(178)	(121)	(50)	2		(430)
Net income (post-tax)	601	628	493	388	(59)		2,051
Less: Net income (post-tax) attributed to							
Non-controlling interests	32	-	-	1	(1)		32
Participating policyholders	(76)	12	(1)	-	-		(65)
Net income (loss) attributed to shareholders (post-tax)	645	616	494	387	(58)		2,084
Less: Items excluded from core earnings ⁽¹⁾							
Investment-related experience outside of core earnings	58	90	58	-	(80)		126
Direct impact of equity markets and interest rates and variable annuity guarantee liabilities	32	240	125	-	1		398
Change in actuarial methods and assumptions	-	-	-	-	-		-
Restructuring charge	-	-	-	-	-		-
Reinsurance transactions, tax related items and other	8	-	(156)	-	-		(148)
Core earnings (post-tax)	\$ 547	\$ 286	\$ 467	\$ 387	\$ 21		\$ 1,708
Income tax on core earnings (see above)	68	101	117	52	8		346
Core earnings (pre-tax)	\$ 615	\$ 387	\$ 584	\$ 439	\$ 29		\$ 2,054

⁽¹⁾ These items are disclosed under OSFI's Source of Earnings Disclosure (Life Insurance Companies) guideline.

Core earnings, CER basis and U.S. dollars

	4Q21						
(Canadian \$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Asia	Canada	U.S.	Global WAM	Corporate and Other		Total
Core earnings (post-tax)	\$ 547	\$ 286	\$ 467	\$ 387	\$ 21		\$ 1,708
CER adjustment ⁽¹⁾	(3)	-	16	10	1		24
Core earnings, CER basis (post-tax)	\$ 544	\$ 286	\$ 483	\$ 397	\$ 22		\$ 1,732
Income tax on core earnings, CER basis ⁽²⁾	68	101	122	51	7		349
Core earnings, CER basis (pre-tax)	\$ 612	\$ 387	\$ 605	\$ 448	\$ 29		\$ 2,081
Core earnings (U.S. dollars) - Asia and U.S. segments							
Core earnings (post-tax)⁽³⁾, US \$	\$ 435		\$ 370				
CER adjustment US \$ ⁽¹⁾	(18)		-				
Core earnings, CER basis (post-tax), US \$	\$ 417		\$ 370				

⁽¹⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

⁽²⁾ Income tax on core earnings adjusted to reflect the foreign exchange rates for the Statement of Income in effect for 3Q22.

⁽³⁾ Core earnings (post-tax) in Canadian \$ is translated to US \$ using the US \$ Statement of Income exchange rate for 4Q21.

Reconciliation of core earnings to net income attributed to shareholders

	3Q21						
(\$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total	
Income (loss) before income taxes	\$ 650	\$ (101)	\$ 800	\$ 418	\$ (287)	\$ 1,480	
Income tax (expense) recovery							
Core earnings	(52)	(109)	(79)	(66)	12	(294)	
Items excluded from core earnings	(31)	153	(16)	(1)	23	128	
Income tax (expense) recovery	(83)	44	(95)	(67)	35	(166)	
Net income (post-tax)	567	(57)	705	351	(252)	1,314	
Less: Net income (post-tax) attributed to							
Non-controlling interests	48	-	-	-	-	48	
Participating policyholders	(303)	(31)	8	-	-	(326)	
Net income (loss) attributed to shareholders (post-tax)	822	(26)	697	351	(252)	1,592	
Less: Items excluded from core earnings ⁽¹⁾							
Investment-related experience outside of core earnings	62	97	617	-	(76)	700	
Direct impact of equity markets and interest rates and variable annuity guarantee liabilities	(129)	(369)	(96)	-	(3)	(597)	
Change in actuarial methods and assumptions	343	(65)	(314)	-	(5)	(41)	
Restructuring charge	-	-	-	-	-	-	
Reinsurance transactions, tax related items and other	13	-	-	-	-	13	
Core earnings (post-tax)	\$ 533	\$ 311	\$ 490	\$ 351	\$ (168)	\$ 1,517	
Income tax on core earnings (see above)	52	109	79	66	(12)	294	
Core earnings (pre-tax)	\$ 585	\$ 420	\$ 569	\$ 417	\$ (180)	\$ 1,811	

⁽¹⁾ These items are disclosed under OSFI's Source of Earnings Disclosure (Life Insurance Companies) guideline.

Core earnings, CER basis and U.S. dollars

	3Q21						
(Canadian \$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total	
Core earnings (post-tax)	\$ 533	\$ 311	\$ 490	\$ 351	\$ (168)	\$ 1,517	
CER adjustment ⁽¹⁾	(8)	-	18	6	(4)	12	
Core earnings, CER basis (post-tax)	\$ 525	\$ 311	\$ 508	\$ 357	\$ (172)	\$ 1,529	
Income tax on core earnings, CER basis ⁽²⁾	51	110	82	67	(12)	298	
Core earnings, CER basis (pre-tax)	\$ 576	\$ 421	\$ 590	\$ 424	\$ (184)	\$ 1,827	
Core earnings (U.S. dollars) - Asia and U.S. segments							
Core earnings (post-tax)⁽³⁾, US \$	\$ 424		\$ 389				
CER adjustment US \$ ⁽¹⁾	(22)		-				
Core earnings, CER basis (post-tax), US \$	\$ 402		\$ 389				

⁽¹⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

⁽²⁾ Income tax on core earnings adjusted to reflect the foreign exchange rates for the Statement of Income in effect for 3Q22.

⁽³⁾ Core earnings (post-tax) in Canadian \$ is translated to US \$ using the US \$ Statement of Income exchange rate for 3Q21.

Reconciliation of core earnings to net income attributed to shareholders

	YTD 2022					
(\$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total
Income (loss) before income taxes	\$ 1,373	\$ 1,923	\$ 4,353	\$ 1,143	\$ (2,187)	\$ 6,605
Income tax (expense) recovery						
Core earnings	(209)	(345)	(259)	(168)	48	(933)
Items excluded from core earnings	35	(126)	(539)	-	164	(466)
Income tax (expense) recovery	(174)	(471)	(798)	(168)	212	(1,399)
Net income (post-tax)	1,199	1,452	3,555	975	(1,975)	5,206
Less: Net income (post-tax) attributed to						
Non-controlling interests	(10)	-	-	1	1	(8)
Participating policyholders	(446)	242	15	-	-	(189)
Net income (loss) attributed to shareholders (post-tax)	1,655	1,210	3,540	974	(1,976)	5,403
Less: Items excluded from core earnings ⁽¹⁾						
Investment-related experience outside of core earnings	141	236	1,245	-	(348)	1,274
Direct impact of equity markets and interest rates and variable annuity guarantee liabilities	43	(70)	134	-	(1,131)	(1,024)
Change in actuarial methods and assumptions	(45)	35	36	-	10	36
Restructuring charge	-	-	-	-	-	-
Reinsurance transactions, tax related items and other	(47)	-	799	-	(71)	681
Core earnings (post-tax)	\$ 1,563	\$ 1,009	\$ 1,326	\$ 974	\$ (436)	\$ 4,436
Income tax on core earnings (see above)	209	345	259	168	(48)	933
Core earnings (pre-tax)	\$ 1,772	\$ 1,354	\$ 1,585	\$ 1,142	\$ (484)	\$ 5,369

⁽¹⁾ These items are disclosed under OSFI's Source of Earnings Disclosure (Life Insurance Companies) guideline.

Core earnings, CER basis and U.S. dollars

	YTD 2022					
(Canadian \$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total
Core earnings (post-tax)	\$ 1,563	\$ 1,009	\$ 1,326	\$ 974	\$ (436)	\$ 4,436
CER adjustment ⁽¹⁾	(4)	-	25	10	2	33
Core earnings, CER basis (post-tax)	\$ 1,559	\$ 1,009	\$ 1,351	\$ 984	\$ (434)	\$ 4,469
Income tax on core earnings, CER basis ⁽²⁾	209	345	264	169	(49)	938
Core earnings, CER basis (pre-tax)	\$ 1,768	\$ 1,354	\$ 1,615	\$ 1,153	\$ (483)	\$ 5,407
Core earnings (U.S. dollars) - Asia and U.S. segments						
Core earnings (post-tax)⁽³⁾, US \$	\$ 1,219		\$ 1,035			
CER adjustment US \$ ⁽¹⁾	(24)		-			
Core earnings, CER basis (post-tax), US \$	\$ 1,195		\$ 1,035			

⁽¹⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

⁽²⁾ Income tax on core earnings adjusted to reflect the foreign exchange rates for the Statement of Income in effect for 3Q22.

⁽³⁾ Core earnings (post-tax) in Canadian \$ is translated to US \$ using the US \$ Statement of Income exchange rate for the three respective quarters that make up 2022 year-to-date core earnings.

Reconciliation of core earnings to net income attributed to shareholders

	YTD 2021					
(\$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total
Income (loss) before income taxes	\$ 2,504	\$ 985	\$ 1,870	\$ 1,203	\$ (918)	\$ 5,644
Income tax (expense) recovery						
Core earnings	(254)	(312)	(301)	(182)	35	(1,014)
Items excluded from core earnings	(107)	154	36	(1)	149	231
Income tax (expense) recovery	(361)	(158)	(265)	(183)	184	(783)
Net income (post-tax)	2,143	827	1,605	1,020	(734)	4,861
Less: Net income (post-tax) attributed to						
Non-controlling interests	222	-	-	1	-	223
Participating policyholders	(491)	89	19	-	-	(383)
Net income (loss) attributed to shareholders (post-tax)	2,412	738	1,586	1,019	(734)	5,021
Less: Items excluded from core earnings ⁽¹⁾						
Investment-related experience outside of core earnings	255	239	1,283	-	(261)	1,516
Direct impact of equity markets and interest rates and variable annuity guarantee liabilities	137	(329)	(852)	-	(171)	(1,215)
Change in actuarial methods and assumptions	343	(65)	(314)	-	(5)	(41)
Restructuring charge	-	-	-	-	(115)	(115)
Reinsurance transactions, tax related items and other	48	-	-	-	-	48
Core earnings (post-tax)	\$ 1,629	\$ 893	\$ 1,469	\$ 1,019	\$ (182)	\$ 4,828
Income tax on core earnings (see above)	254	312	301	182	(35)	1,014
Core earnings (pre-tax)	\$ 1,883	\$ 1,205	\$ 1,770	\$ 1,201	\$ (217)	\$ 5,842

⁽¹⁾ These items are disclosed under OSFI's Source of Earnings Disclosure (Life Insurance Companies) guideline.

Core earnings, CER basis and U.S. dollars

	YTD 2021					
(Canadian \$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total
Core earnings (post-tax)	\$ 1,629	\$ 893	\$ 1,469	\$ 1,019	\$ (182)	\$ 4,828
CER adjustment ⁽¹⁾	(22)	1	64	27	(2)	68
Core earnings, CER basis (post-tax)	\$ 1,607	\$ 894	\$ 1,533	\$ 1,046	\$ (184)	\$ 4,896
Income tax on core earnings, CER basis ⁽²⁾	251	313	314	184	(34)	1,028
Core earnings, CER basis (pre-tax)	\$ 1,858	\$ 1,207	\$ 1,847	\$ 1,230	\$ (218)	\$ 5,924
Core earnings (U.S. dollars) - Asia and U.S. segments						
Core earnings (post-tax)⁽³⁾, US \$	\$ 1,301		\$ 1,174			
CER adjustment US \$ ⁽¹⁾	(69)		-			
Core earnings, CER basis (post-tax), US \$	\$ 1,232		\$ 1,174			

⁽¹⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

⁽²⁾ Income tax on core earnings adjusted to reflect the foreign exchange rates for the Statement of Income in effect for 3Q22.

⁽³⁾ Core earnings (post-tax) in Canadian \$ is translated to US \$ using the US \$ Statement of Income exchange rate for the three respective quarters that make up 2021 year-to-date core earnings.

Reconciliation of core earnings to net income attributed to shareholders

(\$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	2021					
	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total
Income (loss) before income taxes	\$ 3,188	\$ 1,791	\$ 2,484	\$ 1,641	\$ (979)	\$ 8,125
Income tax (expense) recovery						
Core earnings	(322)	(413)	(418)	(234)	27	(1,360)
Items excluded from core earnings	(122)	77	32	1	159	147
Income tax (expense) recovery	(444)	(336)	(386)	(233)	186	(1,213)
Net income (post-tax)	2,744	1,455	2,098	1,408	(793)	6,912
Less: Net income (post-tax) attributed to						
Non-controlling interests	254	-	-	2	(1)	255
Participating policyholders	(567)	101	18	-	-	(448)
Net income (loss) attributed to shareholders (post-tax)	3,057	1,354	2,080	1,406	(792)	7,105
Less: Items excluded from core earnings ⁽¹⁾						
Investment-related experience outside of core earnings	313	329	1,341	-	(341)	1,642
Direct impact of equity markets and interest rates and variable annuity guarantee liabilities	169	(89)	(727)	-	(170)	(817)
Change in actuarial methods and assumptions	343	(65)	(314)	-	(5)	(41)
Restructuring charge	-	-	-	-	(115)	(115)
Reinsurance transactions, tax related items and other	56	-	(156)	-	-	(100)
Core earnings (post-tax)	\$ 2,176	\$ 1,179	\$ 1,936	\$ 1,406	\$ (161)	\$ 6,536
Income tax on core earnings (see above)	322	413	418	234	(27)	1,360
Core earnings (pre-tax)	\$ 2,498	\$ 1,592	\$ 2,354	\$ 1,640	\$ (188)	\$ 7,896

⁽¹⁾ These items are disclosed under OSFI's Source of Earnings Disclosure (Life Insurance Companies) guideline.

Core earnings, CER basis and U.S. dollars

(Canadian \$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	2021					
	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total
Core earnings (post-tax)	\$ 2,176	\$ 1,179	\$ 1,936	\$ 1,406	\$ (161)	\$ 6,536
CER adjustment ⁽¹⁾	(24)	-	80	37	(1)	92
Core earnings, CER basis (post-tax)	\$ 2,152	\$ 1,179	\$ 2,016	\$ 1,443	\$ (162)	\$ 6,628
Income tax on core earnings, CER basis ⁽²⁾	319	413	436	236	(27)	1,377
Core earnings, CER basis (pre-tax)	\$ 2,471	\$ 1,592	\$ 2,452	\$ 1,679	\$ (189)	\$ 8,005
Core earnings (U.S. dollars) - Asia and U.S. segments						
Core earnings (post-tax)⁽³⁾, US \$	\$ 1,736		\$ 1,544			
CER adjustment US \$ ⁽¹⁾	(87)		-			
Core earnings, CER basis (post-tax), US \$	\$ 1,649		\$ 1,544			

⁽¹⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

⁽²⁾ Income tax on core earnings adjusted to reflect the foreign exchange rates for the Statement of Income in effect for 3Q22.

⁽³⁾ Core earnings (post-tax) in Canadian \$ is translated to US \$ using the US \$ Statement of Income exchange rates for the four respective quarters that make up 2021 core earnings.

Segment core earnings by business line or geographic source

(\$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)

Asia

(US \$ millions)	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Hong Kong	\$ 217	\$ 216	\$ 219	\$ 270	\$ 248	\$ 652	\$ 679	\$ 949
Japan	89	84	77	77	86	250	246	323
Asia Other ⁽¹⁾	115	132	156	132	125	403	487	619
Mainland China								96
Singapore								162
Vietnam								290
Other Emerging Markets ⁽²⁾								71
Regional Office	(27)	(31)	(28)	(44)	(35)	(86)	(111)	(155)
Total Asia core earnings	\$ 394	\$ 401	\$ 424	\$ 435	\$ 424	\$ 1,219	\$ 1,301	\$ 1,736

⁽¹⁾ Core earnings for Asia Other is reported by country annually, on a full year basis.

⁽²⁾ Other Emerging Markets includes Indonesia, the Philippines, Malaysia, Thailand, Cambodia and Myanmar.

(US \$ millions), CER basis ⁽¹⁾	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Hong Kong	\$ 217	\$ 216	\$ 219	\$ 270	\$ 248	\$ 652	\$ 679	\$ 949
Japan	89	79	64	64	68	232	193	257
Asia Other ⁽²⁾	115	131	151	127	121	397	471	598
Mainland China								90
Singapore								156
Vietnam								287
Other Emerging Markets ⁽³⁾								65
Regional Office	(27)	(31)	(28)	(44)	(35)	(86)	(111)	(155)
Total Asia core earnings, CER basis	\$ 394	\$ 395	\$ 406	\$ 417	\$ 402	\$ 1,195	\$ 1,232	\$ 1,649

⁽¹⁾ Core earnings adjusted to reflect the foreign exchange rates for the Statement of Income in effect for 3Q22.

⁽²⁾ Core earnings for Asia Other is reported by country annually, on a full year basis.

⁽³⁾ Other Emerging Markets includes Indonesia, the Philippines, Malaysia, Thailand, Cambodia and Myanmar.

Canada

(Canadian \$ millions)	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Insurance	\$ 240	\$ 233	\$ 206	\$ 184	\$ 211	\$ 679	\$ 586	\$ 770
Annuities	56	68	70	62	56	194	172	234
Manulife Bank	54	44	38	40	44	136	135	175
Total Canada core earnings	\$ 350	\$ 345	\$ 314	\$ 286	\$ 311	\$ 1,009	\$ 893	\$ 1,179

U.S.

(US \$ millions)	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
U.S. Insurance	\$ 244	\$ 316	\$ 328	\$ 274	\$ 279	\$ 888	\$ 854	\$ 1,128
U.S. Annuities	50	41	56	96	110	147	320	416
Total U.S. core earnings	\$ 294	\$ 357	\$ 384	\$ 370	\$ 389	\$ 1,035	\$ 1,174	\$ 1,544

Global WAM by business line

(Canadian \$ millions)	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Retirement	\$ 193	\$ 165	\$ 177	\$ 218	\$ 206	\$ 535	\$ 601	\$ 819
Retail	137	126	141	160	136	404	391	551
Institutional asset management	15	14	6	9	9	35	27	36
Total Global WAM core earnings	\$ 345	\$ 305	\$ 324	\$ 387	\$ 351	\$ 974	\$ 1,019	\$ 1,406

(Canadian \$ millions), CER basis ⁽¹⁾	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Retirement	\$ 193	\$ 168	\$ 181	\$ 225	\$ 211	\$ 542	\$ 622	\$ 846
Retail	137	127	143	162	138	407	398	561
Institutional asset management	15	14	6	10	8	35	26	36
Total Global WAM core earnings, CER basis	\$ 345	\$ 309	\$ 330	\$ 397	\$ 357	\$ 984	\$ 1,046	\$ 1,443

⁽¹⁾ Core earnings adjusted to reflect the foreign exchange rates for the Statement of Income in effect for 3Q22.

Global WAM by geographic source

(Canadian \$ millions)	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Asia	\$ 75	\$ 76	\$ 86	\$ 88	\$ 103	\$ 237	\$ 309	\$ 397
Canada	116	109	108	119	106	333	310	429
U.S.	154	120	130	180	142	404	400	580
Total Global WAM core earnings	\$ 345	\$ 305	\$ 324	\$ 387	\$ 351	\$ 974	\$ 1,019	\$ 1,406

(Canadian \$ millions), CER basis ⁽¹⁾	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Asia	\$ 75	\$ 78	\$ 87	\$ 92	\$ 105	\$ 240	\$ 318	\$ 410
Canada	116	109	108	119	105	333	310	429
U.S.	154	122	135	186	147	411	418	604
Total Global WAM core earnings, CER basis	\$ 345	\$ 309	\$ 330	\$ 397	\$ 357	\$ 984	\$ 1,046	\$ 1,443

⁽¹⁾ Core earnings adjusted to reflect the foreign exchange rates for the Statement of Income in effect for 3Q22.

Corporate and Other

(Canadian \$ millions)	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Corporate and Other excluding core investment gains	\$ (370)	\$ (157)	\$ (209)	\$ (79)	\$ (268)	\$ (736)	\$ (482)	\$ (561)
Core investment gains	100	100	100	100	100	300	300	400
Total Corporate and Other core earnings	\$ (270)	\$ (57)	\$ (109)	\$ 21	\$ (168)	\$ (436)	\$ (182)	\$ (161)

Core earnings available to common shareholders is a financial measure that is used in the calculation of core ROE and core EPS. It is calculated as core earnings (post-tax) less preferred share dividends.

(\$ millions, and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Core earnings	\$ 1,322	\$ 1,562	\$ 1,552	\$ 1,708	\$ 1,517	\$ 4,436	\$ 4,828	\$ 6,536
Less: Preferred share dividends	(51)	(60)	(52)	(71)	(37)	(163)	(144)	(215)
Core earnings available to common shareholders	1,271	1,502	1,500	1,637	1,480	4,273	4,684	6,321
CER adjustment ⁽¹⁾	-	18	15	24	12	33	68	92
Core earnings available to common shareholders, CER basis	\$ 1,271	\$ 1,520	\$ 1,515	\$ 1,661	\$ 1,492	\$ 4,306	\$ 4,752	\$ 6,413

⁽¹⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

Core ROE measures profitability using core earnings available to common shareholders as a percentage of the capital deployed to earn the core earnings. The Company calculates core ROE using average common shareholders' equity quarterly, as the average of common shareholders' equity at the start and end of the quarter, and annually, as the average of the quarterly average common shareholders' equity for the year.

(\$ millions, unless otherwise stated)	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Core earnings available to common shareholders	\$ 1,271	\$ 1,502	\$ 1,500	\$ 1,637	\$ 1,480	\$ 4,273	\$ 4,684	\$ 6,321
Annualized core earnings available to common shareholders	\$ 5,045	\$ 6,022	\$ 6,085	\$ 6,483	\$ 5,874	\$ 5,714	\$ 6,262	\$ 6,321
Average common shareholders' equity (see below)	\$ 49,129	\$ 49,814	\$ 51,407	\$ 51,049	\$ 49,075	\$ 50,117	\$ 47,601	\$ 48,463
Core ROE (annualized) (%)	10.3%	12.1%	11.8%	12.7%	12.0%	11.4%	13.2%	13.0%
Average common shareholders' equity								
Total shareholders' and other equity	\$ 56,078	\$ 55,500	\$ 56,457	\$ 58,408	\$ 55,457	\$ 56,078	\$ 55,457	\$ 58,408
Less: Preferred shares and other equity	(6,660)	(6,660)	(5,670)	(6,381)	(5,387)	(6,660)	(5,387)	(6,381)
Common shareholders' equity	\$ 49,418	\$ 48,840	\$ 50,787	\$ 52,027	\$ 50,070	\$ 49,418	\$ 50,070	\$ 52,027
Average common shareholders' equity	\$ 49,129	\$ 49,814	\$ 51,407	\$ 51,049	\$ 49,075	\$ 50,117	\$ 47,601	\$ 48,463

Core EPS is equal to core earnings available to common shareholders divided by diluted weighted average common shares outstanding.

(\$ millions, and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Core EPS								
Core earnings available to common shareholders	\$ 1,271	\$ 1,502	\$ 1,500	\$ 1,637	\$ 1,480	\$ 4,273	\$ 4,684	\$ 6,321
Diluted weighted average common shares outstanding (millions)	1,904	1,924	1,942	1,946	1,946	1,923	1,946	1,946
Core earnings per share	\$ 0.67	\$ 0.78	\$ 0.77	\$ 0.84	\$ 0.76	\$ 2.22	\$ 2.41	\$ 3.25
Core EPS, CER basis								
Core earnings available to common shareholders, CER basis	\$ 1,271	\$ 1,520	\$ 1,515	\$ 1,661	\$ 1,492	\$ 4,306	\$ 4,752	\$ 6,413
Diluted weighted average common shares outstanding (millions)	1,904	1,924	1,942	1,946	1,946	1,923	1,946	1,946
Core earnings per share, CER basis	\$ 0.67	\$ 0.79	\$ 0.78	\$ 0.85	\$ 0.77	\$ 2.24	\$ 2.44	\$ 3.30

Core earnings related to strategic priorities

The Company measures its progress on certain strategic priorities using core earnings, including core earnings from highest potential businesses. The core earnings for these businesses is calculated consistent with our definition of core earnings.

Highest potential businesses

For the nine months ended September 30,

(\$ millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period)	2022	2021
Core earnings highest potential businesses ⁽¹⁾	\$ 2,928	\$ 3,041
Core earnings - All other businesses excl. core investment gains	1,208	1,487
Core investment gains	300	300
Core earnings	4,436	4,828
Items excluded from core earnings	967	193
Net income (loss) attributed to shareholders	\$ 5,403	\$ 5,021
Highest Potential Businesses core earnings contribution	66%	63%

⁽¹⁾ Includes core earnings from Asia and Global WAM segments, Canada group benefits, and behavioural insurance products.

The **effective tax rate on core earnings** is equal to income tax on core earnings divided by pre-tax core earnings.

The Company also uses financial performance measures that are prepared on a **constant exchange rate basis**, which exclude the impact of currency fluctuations (from local currency to Canadian dollars at a total Company level and from local currency to U.S. dollars in Asia). Such financial measures may be stated on a constant exchange rate basis or the percentage growth/decline in the financial measure on a constant exchange rate basis, using the income statement and balance sheet exchange rates effective for the third quarter of 2022.

Information supporting constant exchange rate basis for GAAP and non-GAAP financial measures is presented below and throughout the rest of this section.

Net income financial measures on a CER basis

(\$ Canadian millions, post-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)

	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Net income (loss) attributed to shareholders:								
Asia	\$ 521	\$ 361	\$ 773	\$ 645	\$ 822	\$ 1,655	\$ 2,412	\$ 3,057
Canada	578	85	547	616	(26)	1,210	738	1,354
U.S.	641	832	2,067	494	697	3,540	1,586	2,080
Global WAM	345	305	324	387	351	974	1,019	1,406
Corporate and Other	(738)	(497)	(741)	(58)	(252)	(1,976)	(734)	(792)
Total net income (loss) attributed to shareholders	1,347	1,086	2,970	2,084	1,592	5,403	5,021	7,105
Preferred share dividends and other equity distributions	(51)	(60)	(52)	(71)	(37)	(163)	(144)	(215)
Common shareholders net income (loss)	\$ 1,296	\$ 1,026	\$ 2,918	\$ 2,013	\$ 1,555	\$ 5,240	\$ 4,877	\$ 6,890
CER adjustment⁽¹⁾								
Asia	\$ -	\$ 25	\$ 50	\$ 37	\$ 6	\$ 75	\$ 75	\$ 113
Canada	-	-	-	-	-	-	-	-
U.S.	-	13	60	21	31	73	96	117
Global WAM	-	4	4	9	2	8	21	30
Corporate and Other	-	(6)	(13)	(1)	(6)	(19)	3	1
Total net income (loss) attributed to shareholders	-	36	101	66	33	137	195	261
Preferred share dividends and other equity distributions	-	-	-	-	-	-	-	-
Common shareholders net income (loss)	\$ -	\$ 36	\$ 101	\$ 66	\$ 33	\$ 137	\$ 195	\$ 261
Net income (loss) attributed to shareholders, CER basis								
Asia	\$ 521	\$ 386	\$ 823	\$ 682	\$ 828	\$ 1,730	\$ 2,487	\$ 3,170
Canada	578	85	547	616	(26)	1,210	738	1,354
U.S.	641	845	2,127	515	728	3,613	1,682	2,197
Global WAM	345	309	328	396	353	982	1,040	1,436
Corporate and Other	(738)	(503)	(754)	(59)	(258)	(1,995)	(731)	(791)
Total net income (loss) attributed to shareholders, CER basis	1,347	1,122	3,071	2,150	1,625	5,540	5,216	7,366
Preferred share dividends and other equity distributions, CER basis	(51)	(60)	(52)	(71)	(37)	(163)	(144)	(215)
Common shareholders net income (loss), CER basis	\$ 1,296	\$ 1,062	\$ 3,019	\$ 2,079	\$ 1,588	\$ 5,377	\$ 5,072	\$ 7,151
Asia net income attributed to shareholders, U.S. dollars								
Asia net income (loss) attributed to shareholders, US \$ ⁽²⁾	\$ 399	\$ 283	\$ 610	\$ 513	\$ 654	\$ 1,292	\$ 1,924	\$ 2,437
CER adjustment, US \$ ⁽¹⁾	-	12	22	9	(20)	34	(18)	(9)
Asia net income (loss) attributed to shareholders, U.S. \$, CER basis⁽¹⁾	\$ 399	\$ 295	\$ 632	\$ 522	\$ 634	\$ 1,326	\$ 1,906	\$ 2,428
Net income (loss) attributed to shareholders (pre-tax)								
Net income (loss) attributed to shareholders (post-tax)	\$ 1,347	\$ 1,086	\$ 2,970	\$ 2,084	\$ 1,592	\$ 5,403	\$ 5,021	\$ 7,105
Tax on net income attributed to shareholders	310	188	778	440	171	1,276	745	1,185
Net income (loss) attributed to shareholders (pre-tax)	1,657	1,274	3,748	2,524	1,763	6,679	5,766	8,290
CER adjustment ⁽¹⁾	-	37	92	24	35	129	24	48
Net income (loss) attributed to shareholders (pre-tax), CER basis	\$ 1,657	\$ 1,311	\$ 3,840	\$ 2,548	\$ 1,798	\$ 6,808	\$ 5,790	\$ 8,338

⁽¹⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

⁽²⁾ Asia net income attributed to shareholders (post-tax) in Canadian dollars is translated to U.S. dollars using the U.S. dollar Statement of Income rate for the reporting period.

Basic EPS and diluted EPS, CER basis

(\$ millions, unless otherwise stated)

	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Common shareholders net income, CER basis ⁽¹⁾	\$ 1,296	\$ 1,062	\$ 3,019	\$ 2,079	\$ 1,588	\$ 5,377	\$ 5,072	\$ 7,151
Weighted average common shares outstanding (millions)	1,902	1,921	1,938	1,943	1,942	1,920	1,942	1,942
Basic EPS, CER basis	\$ 0.68	\$ 0.55	\$ 1.56	\$ 1.07	\$ 0.82	\$ 2.80	\$ 2.61	\$ 3.68
Common shareholders net income, CER basis ⁽¹⁾	\$ 1,296	\$ 1,062	\$ 3,019	\$ 2,079	\$ 1,588	\$ 5,377	\$ 5,072	\$ 7,151
Diluted weighted average common shares outstanding (millions)	1,904	1,924	1,942	1,946	1,946	1,923	1,946	1,946
Diluted EPS, CER basis	\$ 0.68	\$ 0.55	\$ 1.55	\$ 1.07	\$ 0.82	\$ 2.80	\$ 2.61	\$ 3.68

⁽¹⁾ Common shareholders net income adjusted to reflect the foreign exchange rates for the Statement of Income in effect for 3Q22.

General expenses, CER basis

(\$ millions, and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)

	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
General expenses	\$ 1,900	\$ 1,843	\$ 1,898	\$ 2,000	\$ 1,904	\$ 5,641	\$ 5,828	\$ 7,828
CER adjustment ⁽¹⁾	-	11	1	7	1	12	18	25
General expenses, CER basis	\$ 1,900	\$ 1,854	\$ 1,899	\$ 2,007	\$ 1,905	\$ 5,653	\$ 5,846	\$ 7,853

⁽¹⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

Global WAM revenue, CER basis

(\$ millions, and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)

	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Total revenue	\$ 7,777	\$ (2,401)	\$ (3,630)	\$ 21,611	\$ 15,983	\$ 1,746	\$ 40,210	\$ 61,821
Less: Revenue for segments other than Global WAM	6,235	(3,922)	(5,216)	19,884	14,303	(2,903)	35,396	55,280
Global WAM revenue	1,542	1,521	1,586	1,727	1,680	4,649	4,814	6,541
CER adjustment ⁽¹⁾	-	19	25	33	27	44	107	140
Global WAM revenue, CER basis	\$ 1,542	\$ 1,540	\$ 1,611	\$ 1,760	\$ 1,707	\$ 4,693	\$ 4,921	\$ 6,681

⁽¹⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

Common share core dividend payout ratio is a ratio that measures the percentage of core earnings paid to common shareholders as dividends. It is calculated as dividends per common share divided by core EPS.

	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Per share dividend	\$ 0.33	\$ 0.33	\$ 0.33	\$ 0.33	\$ 0.28	\$ 0.99	\$ 0.84	\$ 1.17
Core EPS	\$ 0.67	\$ 0.78	\$ 0.77	\$ 0.84	\$ 0.76	\$ 2.22	\$ 2.41	\$ 3.25
Common share core dividend payout ratio	49%	42%	43%	39%	37%	45%	35%	36%

AUMA is a financial measure of the size of the Company. It is comprised of AUM and AUA. AUM includes assets of general account, consisting of total invested assets and segregated funds net assets, and external client assets for which we provide investment management services, consisting of mutual fund, institutional asset management and other fund net assets. AUA are assets for which we provide administrative services only. Assets under management and administration is a common industry metric for wealth and asset management businesses.

Our Global WAM business also manages assets on behalf of other segments of the Company. **Global WAM-managed AUMA** is a financial measure equal to the sum of Global WAM's AUMA and assets managed by Global WAM on behalf of other segments. It is an important measure of the assets managed by Global WAM.

AUM and AUMA reconciliations

(Canadian \$ in millions, and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)

As at	CAD \$						US \$(⁴)	
	September 30, 2022						September 30, 2022	
	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total	Asia	U.S.
Total Invested Assets								
Manulife Bank net lending assets	\$ -	\$ 24,637	\$ -	\$ -	\$ -	\$ 24,637	\$ -	\$ -
Derivative reclassification ⁽¹⁾	-	-	-	-	5,880	5,880	-	-
Invested assets excluding above items	121,285	85,164	154,739	3,741	15,846	380,775	88,263	112,615
Total	121,285	109,801	154,739	3,741	21,726	411,292	88,263	112,615
Segregated funds net assets								
Segregated funds net assets - Institutional	-	-	-	4,118	-	4,118	-	-
Segregated funds net assets - Other ⁽²⁾	22,032	34,773	63,996	210,352	(26)	331,127	16,042	46,575
Total	22,032	34,773	63,996	214,470	(26)	335,245	16,042	46,575
AUM per financial statements	143,317	144,574	218,735	218,211	21,700	746,537	104,305	159,190
Mutual funds	-	-	-	249,520	-	249,520	-	-
Institutional asset management ⁽³⁾	-	-	-	100,361	-	100,361	-	-
Other funds	-	-	-	12,910	-	12,910	-	-
Total AUM	143,317	144,574	218,735	581,002	21,700	1,109,328	104,305	159,190
Assets under administration	-	-	-	167,759	-	167,759	-	-
Total AUMA	\$ 143,317	\$ 144,574	\$ 218,735	\$ 748,761	\$ 21,700	\$ 1,277,087	\$ 104,305	\$ 159,190
Total AUMA, US \$(⁴)						\$ 929,433		
Total AUMA	\$ 143,317	\$ 144,574	\$ 218,735	\$ 748,761	\$ 21,700	\$ 1,277,087		
CER adjustment ⁽⁵⁾	-	-	-	-	-	-		
Total AUMA, CER basis	\$ 143,317	\$ 144,574	\$ 218,735	\$ 748,761	\$ 21,700	\$ 1,277,087		
Global WAM Managed AUMA								
Global WAM AUMA				\$ 748,761				
AUM managed by Global WAM for Manulife's other segments				220,637				
Total				\$ 969,398				

⁽¹⁾ Corporate and Other consolidation adjustment related to net derivative assets reclassified from total invested assets to other lines on the Statement of Financial Position.

⁽²⁾ Corporate and Other segregated funds net asset represents elimination of amounts held by the Company.

⁽³⁾ Institutional asset management excludes Institutional segregated funds net assets.

⁽⁴⁾ US \$ AUMA is calculated as total AUMA in Canadian \$ divided by the US \$ exchange rate in effect at the end of the quarter.

⁽⁵⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

As at	CAD \$						US \$ ⁽⁴⁾	
	June 30, 2022						June 30, 2022	
	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total	Asia	U.S.
Total Invested Assets								
Manulife Bank net lending assets	\$ -	\$ 24,500	\$ -	\$ -	\$ -	\$ 24,500	\$ -	\$ -
Derivative reclassification ⁽¹⁾	-	-	-	-	5,233	5,233	-	-
Invested assets excluding above items	117,128	82,755	149,506	3,967	19,240	372,596	90,822	115,901
Total	117,128	107,255	149,506	3,967	24,473	402,329	90,822	115,901
Segregated funds net assets								
Segregated funds net assets - Institutional	-	-	-	4,098	-	4,098	-	-
Segregated funds net assets - Other ⁽²⁾	21,874	35,577	64,200	209,181	(27)	330,805	16,953	49,770
Total	21,874	35,577	64,200	213,279	(27)	334,903	16,953	49,770
AUM per financial statements	139,002	142,832	213,706	217,246	24,446	737,232	107,775	165,671
Mutual funds	-	-	-	250,445	-	250,445	-	-
Institutional asset management ⁽³⁾	-	-	-	100,205	-	100,205	-	-
Other funds	-	-	-	12,110	-	12,110	-	-
Total AUM	139,002	142,832	213,706	580,006	24,446	1,099,992	107,775	165,671
Assets under administration	-	-	-	164,697	-	164,697	-	-
Total AUMA	\$ 139,002	\$ 142,832	\$ 213,706	\$ 744,703	\$ 24,446	\$ 1,264,689	\$ 107,775	\$ 165,671
Total AUMA, US \$⁽⁴⁾						\$ 980,379		
Total AUMA	\$ 139,002	\$ 142,832	\$ 213,706	\$ 744,703	\$ 24,446	\$ 1,264,689		
CER adjustment ⁽⁵⁾	5,514	-	13,894	33,035	-	52,443		
Total AUMA, CER basis	\$ 144,516	\$ 142,832	\$ 227,600	\$ 777,738	\$ 24,446	\$ 1,317,132		
Global WAM Managed AUMA								
Global WAM AUMA				\$ 744,703				
AUM managed by Global WAM for Manulife's other segments				220,103				
Total				\$ 964,806				

Note: For footnotes (1) to (5), refer to the "AUM and AUMA reconciliation" table as at September 30, 2022 above.

As at	CAD \$						US \$ ⁽⁴⁾	
	March 31, 2022						March 31, 2022	
	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total	Asia	U.S.
Total Invested Assets								
Manulife Bank net lending assets	\$ -	\$ 24,004	\$ -	\$ -	\$ -	\$ 24,004	\$ -	\$ -
Derivative reclassification ⁽¹⁾	-	-	-	-	(270)	(270)	-	-
Invested assets excluding above items	120,529	88,736	150,989	3,468	21,945	385,667	96,463	120,830
Total	120,529	112,740	150,989	3,468	21,675	409,401	96,463	120,830
Segregated funds net assets								
Segregated funds net assets - Institutional	-	-	-	4,338	-	4,338	-	-
Segregated funds net assets - Other ⁽²⁾	23,868	39,649	71,823	232,276	(26)	367,590	19,108	57,476
Total	23,868	39,649	71,823	236,614	(26)	371,928	19,108	57,476
AUM per financial statements	144,397	152,389	222,812	240,082	21,649	781,329	115,571	178,306
Mutual funds	-	-	-	274,665	-	274,665	-	-
Institutional asset management ⁽³⁾	-	-	-	101,105	-	101,105	-	-
Other funds	-	-	-	13,269	-	13,269	-	-
Total AUM	144,397	152,389	222,812	629,121	21,649	1,170,368	115,571	178,306
Assets under administration	-	-	-	178,843	-	178,843	-	-
Total AUMA	\$ 144,397	\$ 152,389	\$ 222,812	\$ 807,964	\$ 21,649	\$ 1,349,211	\$ 115,571	\$ 178,306
Total AUMA, US \$⁽⁴⁾						\$ 1,079,714		
Total AUMA	\$ 144,397	\$ 152,389	\$ 222,812	\$ 807,964	\$ 21,649	\$ 1,349,211		
CER adjustment ⁽⁵⁾	5,549	-	22,119	52,761	-	80,429		
Total AUMA, CER basis	\$ 149,946	\$ 152,389	\$ 244,931	\$ 860,725	\$ 21,649	\$ 1,429,640		
Global WAM Managed AUMA								
Global WAM AUMA				\$ 807,964				
AUM managed by Global WAM for Manulife's other segments				231,373				
Total				\$ 1,039,337				

Note: For footnotes (1) to (5), refer to the "AUM and AUMA reconciliation" table as at September 30, 2022 above.

As at	CAD \$						US \$ ⁽⁴⁾	
	December 31, 2021						December 31, 2021	
	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total	Asia	U.S.
Total Invested Assets								
Manulife Bank net lending assets	\$ -	\$ 23,447	\$ -	\$ -	\$ -	\$ 23,447	\$ -	\$ -
Derivative reclassification ⁽¹⁾	-	-	-	-	(7,475)	(7,475)	-	-
Invested assets excluding above items	129,207	96,425	164,830	4,458	16,206	411,126	101,893	130,013
Total	129,207	119,872	164,830	4,458	8,731	427,098	101,893	130,013
Segregated funds net assets								
Segregated funds net assets - Institutional	-	-	-	4,470	-	4,470	-	-
Segregated funds net assets - Other ⁽²⁾	25,505	42,124	79,620	248,097	(28)	395,318	20,112	62,801
Total	25,505	42,124	79,620	252,567	(28)	399,788	20,112	62,801
AUM per financial statements	154,712	161,996	244,450	257,025	8,703	826,886	122,005	192,814
Mutual funds	-	-	-	290,863	-	290,863	-	-
Institutional asset management ⁽³⁾	-	-	-	106,407	-	106,407	-	-
Other funds	-	-	-	14,001	-	14,001	-	-
Total AUM	154,712	161,996	244,450	668,296	8,703	1,238,157	122,005	192,814
Assets under administration	-	-	-	187,631	-	187,631	-	-
Total AUMA	\$ 154,712	\$ 161,996	\$ 244,450	\$ 855,927	\$ 8,703	\$ 1,425,788	\$ 122,005	\$ 192,814
Total AUMA, US \$⁽⁴⁾						\$ 1,124,616		
Total AUMA	\$ 154,712	\$ 161,996	\$ 244,450	\$ 855,927	\$ 8,703	\$ 1,425,788		
CER adjustment ⁽⁵⁾	1,955	-	20,419	45,465	-	67,839		
Total AUMA, CER basis	\$ 156,667	\$ 161,996	\$ 264,869	\$ 901,392	\$ 8,703	\$ 1,493,627		
Global WAM Managed AUMA								
Global WAM AUMA				\$ 855,927				
AUM managed by Global WAM for Manulife's other segments				246,773				
Total				\$ 1,102,700				

Note: For footnotes (1) to (5), refer to the "AUM and AUMA reconciliation" table as at September 30, 2022 above.

As at	CAD \$						US \$(⁴)	
	September 30, 2021						September 30, 2021	
	Asia	Canada	U.S.	Global WAM	Corporate and Other	Total	Asia	U.S.
Total Invested Assets								
Manulife Bank net lending assets	\$ -	\$ 23,139	\$ -	\$ -	\$ -	\$ 23,139	\$ -	\$ -
Derivative reclassification ⁽¹⁾	-	-	-	-	(6,226)	(6,226)	-	-
Invested assets excluding above items	124,880	94,510	162,720	4,333	15,731	402,174	98,022	127,714
Total	124,880	117,649	162,720	4,333	9,505	419,087	98,022	127,714
Segregated funds net assets								
Segregated funds net assets - Institutional	-	-	-	4,400	-	4,400	-	-
Segregated funds net assets - Other ⁽²⁾	24,892	40,178	78,223	240,151	(45)	383,399	19,540	61,395
Total	24,892	40,178	78,223	244,551	(45)	387,799	19,540	61,395
AUM per financial statements	149,772	157,827	240,943	248,884	9,460	806,886	117,562	189,109
Mutual funds	-	-	-	277,421	-	277,421	-	-
Institutional asset management ⁽³⁾	-	-	-	103,732	-	103,732	-	-
Other funds	-	-	-	12,562	-	12,562	-	-
Total AUM Assets under administration	149,772	157,827	240,943	642,599	9,460	1,200,601	117,562	189,109
	-	-	-	181,013	-	181,013	-	-
Total AUMA	\$ 149,772	\$ 157,827	\$ 240,943	\$ 823,612	\$ 9,460	\$ 1,381,614	\$ 117,562	\$ 189,109
Total AUMA, US \$(⁴)						\$ 1,084,384		
Total AUMA	\$ 149,772	\$ 157,827	\$ 240,943	\$ 823,612	\$ 9,460	\$ 1,381,614		
CER adjustment ⁽⁵⁾	612	-	18,839	40,546	-	59,997		
Total AUMA, CER basis	\$ 150,384	\$ 157,827	\$ 259,782	\$ 864,158	\$ 9,460	\$ 1,441,611		
Global WAM Managed AUMA								
Global WAM AUMA				\$ 823,612				
AUM managed by Global WAM for Manulife's other segments				240,798				
Total				\$ 1,064,410				

Note: For footnotes (1) to (5), refer to the "AUM and AUMA reconciliation" table as at September 30, 2022 above.

Global WAM AUMA and managed AUMA by business line and geographic source

(\$ millions, and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)

As at	Sept 30, 2022	Jun 30, 2022	Mar 31, 2022	Dec 31, 2021	Sept 30, 2021
Global WAM AUMA by business line					
Retirement	\$ 379,687	\$ 377,674	\$ 412,689	\$ 440,831	\$ 426,742
Retail	263,106	261,354	289,008	303,232	287,717
Institutional asset management	105,968	105,675	106,267	111,864	109,153
Total	\$ 748,761	\$ 744,703	\$ 807,964	\$ 855,927	\$ 823,612
Global WAM AUMA by business line, CER basis⁽¹⁾					
Retirement	\$ 379,687	\$ 396,969	\$ 444,769	\$ 469,763	\$ 453,024
Retail	263,106	271,570	305,522	317,251	300,262
Institutional asset management	105,968	109,199	110,434	114,378	110,872
Total	\$ 748,761	\$ 777,738	\$ 860,725	\$ 901,392	\$ 864,158
Global WAM AUMA by geographic source					
Asia	\$ 97,083	\$ 96,510	\$ 98,608	\$ 104,584	\$ 100,899
Canada	203,988	206,073	227,252	238,798	228,347
U.S.	447,690	442,120	482,104	512,545	494,366
Total	\$ 748,761	\$ 744,703	\$ 807,964	\$ 855,927	\$ 823,612
Global WAM AUMA by geographic source, CER basis⁽¹⁾					
Asia	\$ 97,083	\$ 100,724	\$ 103,362	\$ 107,112	\$ 102,675
Canada	203,988	206,073	227,252	238,798	228,347
U.S.	447,690	470,941	530,111	555,482	533,136
Total	\$ 748,761	\$ 777,738	\$ 860,725	\$ 901,392	\$ 864,158
Global WAM Managed AUMA by business line					
Retirement	\$ 379,687	\$ 377,674	\$ 412,689	\$ 440,831	\$ 426,742
Retail	336,459	335,367	370,999	391,911	373,685
Institutional asset management	253,252	251,765	255,649	269,958	263,983
Total	\$ 969,398	\$ 964,806	\$ 1,039,337	\$ 1,102,700	\$ 1,064,410
Global WAM Managed AUMA by business line, CER basis⁽¹⁾					
Retirement	\$ 379,687	\$ 396,969	\$ 444,769	\$ 469,763	\$ 453,024
Retail	336,459	348,586	392,573	410,564	390,490
Institutional asset management	253,252	263,481	272,583	283,896	276,163
Total	\$ 969,398	\$ 1,009,036	\$ 1,109,925	\$ 1,164,223	\$ 1,119,677
Global WAM Managed AUMA by geographic source					
Asia	\$ 192,004	\$ 190,301	\$ 195,346	\$ 207,827	\$ 200,976
Canada	251,603	254,400	279,700	293,902	281,523
U.S.	525,791	520,105	564,291	600,971	581,911
Total	\$ 969,398	\$ 964,806	\$ 1,039,337	\$ 1,102,700	\$ 1,064,410
Global WAM Managed AUMA by geographic source, CER basis⁽¹⁾					
Asia	\$ 192,004	\$ 200,624	\$ 209,742	\$ 219,002	\$ 210,606
Canada	251,603	254,400	279,700	293,902	281,523
U.S.	525,791	554,012	620,483	651,319	627,548
Total	\$ 969,398	\$ 1,009,036	\$ 1,109,925	\$ 1,164,223	\$ 1,119,677

⁽¹⁾ AUMA adjusted to reflect the foreign exchange rates for the Statement of Financial Position in effect for 3Q22.

Average assets under management and administration (“average AUMA”) is the average of Global WAM’s AUMA during the reporting period. It is a measure used in analyzing and explaining fee income and earnings of our Global WAM segment. It is calculated as the average of the opening balance of AUMA and the ending balance of AUMA using daily balances where available and month-end or quarter-end averages when daily averages are unavailable. Similarly, Global WAM **average managed AUMA and average AUA** are the average of Global WAM’s managed AUMA and AUA, respectively, and are calculated in a manner consistent with average AUMA.

Manulife Bank net lending assets is a financial measure equal to the sum of Manulife Bank’s loans and mortgages, net of allowances. **Manulife Bank average net lending assets** is a financial measure which is calculated as the quarter-end average of the opening and the ending balance of net lending assets. Both of these financial measures are a measure of the size of Manulife Bank’s portfolio of loans and mortgages and are used to analyze and explain its earnings.

As at (\$ millions)	Sept 30, 2022	Jun 30, 2022	Mar 31, 2022	Dec 31, 2021	Sept 30, 2021
Mortgages	\$ 54,685	\$ 53,422	\$ 52,287	\$ 52,014	\$ 51,001
Less: mortgages not held by Manulife Bank	32,847	31,704	30,950	31,073	30,202
Total mortgages held by Manulife Bank	21,838	21,718	21,337	20,941	20,799
Loans to bank clients	2,799	2,782	2,667	2,506	2,340
Manulife Bank net lending assets	\$ 24,637	\$ 24,500	\$ 24,004	\$ 23,447	\$ 23,139
Manulife Bank average net lending assets					
Beginning of period	\$ 24,500	\$ 24,004	\$ 23,447	\$ 23,139	\$ 22,884
End of period	24,637	24,500	24,004	23,447	23,139
Manulife Bank average net lending assets by quarter	\$ 24,569	\$ 24,252	\$ 23,726	\$ 23,293	\$ 23,012
Manulife Bank average net lending assets – Year-to-date	\$ 24,042				\$ 22,951
Manulife Bank average net lending assets – full year				\$ 23,105	

Consolidated capital serves as a foundation of our capital management activities at the MFC level. Consolidated capital is calculated as the sum of: (i) total equity excluding accumulated other comprehensive income (“AOCI”) on cash flow hedges; and (ii) certain other capital instruments that qualify as regulatory capital. 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 defined by OSFI.

As at (\$ millions)	Sep 30, 2022	Jun 30, 2022	Mar 31, 2022	Dec 31, 2021	Sep 30, 2021
Total equity	\$ 56,307	\$ 55,798	\$ 56,849	\$ 58,869	\$ 55,951
Exclude AOCI gain/(loss) on cash flow hedges	(18)	(48)	(70)	(156)	(159)
Total equity excluding AOCI on cash flow hedges	56,325	55,846	56,919	59,025	56,110
Qualifying capital instruments	7,118	7,001	6,950	6,980	6,986
Consolidated capital	\$ 63,443	\$ 62,847	\$ 63,869	\$ 66,005	\$ 63,096

Core EBITDA is a financial measure which Manulife uses to better understand the long-term earnings capacity and valuation of our Global WAM business on a basis more comparable to how the profitability of global asset managers is generally measured. Core EBITDA presents core earnings before the impact of interest, taxes, depreciation, and amortization. Core EBITDA excludes certain acquisition expenses related to insurance contracts in our retirement businesses which are deferred and amortized over the expected lifetime of the customer relationship under the CALM. Core EBITDA was selected as a key performance indicator for our Global WAM business, as EBITDA is widely used among asset management peers, and core earnings is a primary profitability metric for the Company overall.

Reconciliation of Global WAM core earnings to core EBITDA and Global WAM core EBITDA by business line and geographic source

(\$ millions, pre-tax and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)

	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Global WAM core earnings (post-tax)	\$ 345	\$ 305	\$ 324	\$ 387	\$ 351	\$ 974	\$ 1,019	\$ 1,406
Addback taxes, acquisition costs, other expenses and deferred sales commissions								
Core income tax (expense) recovery (see above)	50	57	61	52	66	168	182	234
Acquisition costs, other expenses	86	80	81	79	86	247	244	323
Deferred sales commissions	23	25	24	25	26	72	74	99
Core EBITDA	\$ 504	\$ 467	\$ 490	\$ 543	\$ 529	\$ 1,461	\$ 1,519	\$ 2,062
CER adjustment ⁽¹⁾	-	5	9	12	11	14	26	38
Core EBITDA, CER basis	\$ 504	\$ 472	\$ 499	\$ 555	\$ 540	\$ 1,475	\$ 1,545	\$ 2,100
Core EBITDA by business line								
Retirement	\$ 287	\$ 263	\$ 277	\$ 306	\$ 313	\$ 827	\$ 904	\$ 1,210
Retail	193	179	201	220	199	573	570	790
Institutional asset management	24	25	12	17	17	61	45	62
Total	\$ 504	\$ 467	\$ 490	\$ 543	\$ 529	\$ 1,461	\$ 1,519	\$ 2,062
Core EBITDA by geographic source								
Asia	\$ 111	\$ 106	\$ 113	\$ 115	\$ 134	\$ 330	\$ 396	\$ 511
Canada	180	171	171	185	172	522	497	682
U.S.	213	190	206	243	223	609	626	869
Total	\$ 504	\$ 467	\$ 490	\$ 543	\$ 529	\$ 1,461	\$ 1,519	\$ 2,062
Core EBITDA by business line, CER basis⁽²⁾								
Retirement	\$ 287	\$ 267	\$ 284	\$ 315	\$ 321	\$ 838	\$ 934	\$ 1,248
Retail	193	180	203	223	201	576	567	790
Institutional asset management	24	25	12	17	18	61	44	62
Total, CER basis	\$ 504	\$ 472	\$ 499	\$ 555	\$ 540	\$ 1,475	\$ 1,545	\$ 2,100
Core EBITDA by geographic source, CER basis⁽²⁾								
Asia	\$ 111	\$ 107	\$ 115	\$ 118	\$ 137	\$ 333	\$ 394	\$ 512
Canada	180	171	171	185	172	522	497	682
U.S.	213	194	213	252	231	620	654	906
Total, CER basis	\$ 504	\$ 472	\$ 499	\$ 555	\$ 540	\$ 1,475	\$ 1,545	\$ 2,100

⁽¹⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

⁽²⁾ Core EBITDA adjusted to reflect the foreign exchange rates for the Statement of Income in effect for 3Q22.

Core EBITDA margin is a financial measure which Manulife uses to better understand the long-term profitability of our Global WAM business on a more comparable basis to how profitability of global asset managers are measured. Core EBITDA margin presents core earnings before the impact of interest, taxes, depreciation, and amortization divided by total revenue from these businesses. Core EBITDA margin was selected as a key performance indicator for our Global WAM business, as EBITDA margin is widely used among asset management peers, and core earnings is a primary profitability metric for the Company overall.

(\$ millions, unless otherwise stated)	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Core EBITDA margin								
Core EBITDA	\$ 504	\$ 467	\$ 490	\$ 543	\$ 529	\$ 1,461	\$ 1,519	\$ 2,062
Global WAM revenue	\$ 1,542	\$ 1,521	\$ 1,586	\$ 1,727	\$ 1,680	\$ 4,649	\$ 4,814	\$ 6,541
Core EBITDA margin	32.7%	30.7%	30.9%	31.4%	31.5%	31.4%	31.6%	31.5%

Expense efficiency ratio is a financial measure which Manulife uses to measure progress towards our target to be more efficient. It is defined as core general expenses divided by the sum of core earnings before income taxes (“pre-tax core earnings”) and core general expenses. **Core general expenses** is used to calculate our expense efficiency ratio and is equal to pre-tax general expenses included in core earnings and excludes such items as material legal provisions for settlements, restructuring charges and expenses related to integration and acquisitions.

(\$ millions, and based on actual foreign exchange rates in effect in the applicable reporting period, unless otherwise stated)	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Expense Efficiency Ratio								
Core general expenses	\$ 1,859	\$ 1,843	\$ 1,877	\$ 1,973	\$ 1,904	\$ 5,579	\$ 5,580	\$ 7,553
Core earnings (pre-tax)	1,593	1,900	1,876	2,054	1,811	5,369	5,842	7,896
Total - Core earnings (pre-tax) and Core general expenses	\$ 3,452	\$ 3,743	\$ 3,753	\$ 4,027	\$ 3,715	\$ 10,948	\$ 11,422	\$ 15,449
Expense Efficiency Ratio	53.9%	49.2%	50.0%	49.0%	51.3%	51.0%	48.9%	48.9%
Core general expenses								
General expenses - Financial Statements	\$ 1,900	\$ 1,843	\$ 1,898	\$ 2,000	\$ 1,904	\$ 5,641	\$ 5,828	\$ 7,828
Less: General expenses included in items excluded from core earnings								
Restructuring charge	-	-	-	-	-	-	150	150
Integration and acquisition	-	-	8	-	-	8	-	-
Legal provisions and Other expenses	41	-	13	27	-	54	98	125
Total	\$ 41	\$ -	\$ 21	\$ 27	\$ -	\$ 62	\$ 248	\$ 275
Core general expenses	\$ 1,859	\$ 1,843	\$ 1,877	\$ 1,973	\$ 1,904	\$ 5,579	\$ 5,580	\$ 7,553
Core general expenses	\$ 1,859	\$ 1,843	\$ 1,877	\$ 1,973	\$ 1,904	\$ 5,579	\$ 5,580	\$ 7,553
CER adjustment ⁽¹⁾	-	11	-	6	1	11	14	20
Core general expenses, CER basis	\$ 1,859	\$ 1,854	\$ 1,877	\$ 1,979	\$ 1,905	\$ 5,590	\$ 5,594	\$ 7,573

⁽¹⁾ The impact of updating foreign exchange rates to that which was used in 3Q22.

Embedded value (“EV”) is a measure of the present value of shareholders’ interests in the expected future distributable earnings on in-force business reflected in the Consolidated Statements of Financial Position of Manulife, excluding any value associated with future new business. EV is calculated as the sum of the adjusted net worth and the value of in-force business calculated as at December 31. The adjusted net worth is the IFRS shareholders’ equity adjusted for goodwill and intangible assets, fair value of surplus assets, the fair value of debt, preferred shares, and other equity, and local statutory balance sheet, regulatory reserve, and capital for our Asian

businesses. The value of in-force business in Canada and the U.S. is the present value of expected future IFRS earnings, on an IFRS 4 basis, on in-force business less the present value of the cost of holding capital to support the in-force business under the LICAT framework. The value of in-force business in Asia reflects local statutory earnings and capital requirements. The value of in-force excludes Global WAM, Bank or P&C Reinsurance businesses.

Net annualized fee income yield on average AUMA ("Net fee income yield") is a financial measure that represents the net annualized fee income from Global WAM channels over average AUMA. This measure provides information on Global WAM's adjusted return generated from managing AUMA.

Net annualized fee income is a financial measure that represents Global WAM income before income taxes, adjusted to exclude items unrelated to net fee income, including general expenses, investment income, non-AUMA related net benefits and claims, and net premium taxes. It also excludes the components of Global WAM net fee income from managing assets on behalf of other segments. This measure is annualized based on the number of days in the year divided the number of days in the reporting period.

Reconciliation of income before income taxes to net fee income yield

(\$ millions, unless otherwise stated)	Quarterly Results					YTD Results		Full Year Results
	3Q22	2Q22	1Q22	4Q21	3Q21	2022	2021	2021
Income before income taxes	\$ 1,637	\$ 1,257	\$ 3,711	\$ 2,481	\$ 1,480	\$ 6,605	\$ 5,644	\$ 8,125
Less: Income before income taxes for segments other than Global WAM	1,242	895	3,325	2,043	1,062	5,462	4,441	6,484
Global WAM income before income taxes	395	362	386	438	418	1,143	1,203	1,641
Items unrelated to net fee income	565	580	600	616	599	1,745	1,708	2,324
Global WAM net fee income	960	942	986	1,054	1,017	2,888	2,911	3,965
Less: Net fee income from other segments	112	112	118	122	118	342	336	458
Global WAM net fee income excluding net fee income from other segments	848	830	868	932	899	2,546	2,575	3,507
Net annualized fee income	\$ 3,362	\$ 3,328	\$ 3,516	\$ 3,698	\$ 3,565	\$ 3,403	\$ 3,444	\$ 3,507
Average Assets under Management and Administration	\$ 771,812	\$ 776,833	\$ 820,393	\$ 835,494	\$ 815,927	\$ 785,440	\$ 786,034	\$ 798,022
Net fee income yield (bps)	43.6	42.8	42.9	44.3	43.7	43.3	43.8	43.9

New business value ("NBV") is the change in embedded value as a result of sales in the reporting period. NBV is calculated as the present value of shareholders' interests in expected future distributable earnings, after the cost of capital calculated under the LICAT framework in Canada and the U.S. and the local capital requirements in Asia, on actual new business sold in the period using assumptions that are consistent with the assumptions used in the calculation of embedded value. NBV excludes businesses with immaterial insurance risks, such as the Company's Global WAM, Manulife Bank and the P&C Reinsurance businesses. NBV is a useful metric to evaluate the value created by the Company's new business franchise.

New business value margin ("NBV margin") is calculated as NBV divided by APE sales excluding non-controlling interests. APE sales are calculated as 100% of regular premiums and deposits sales and 10% of single premiums and deposits sales. NBV margin is a useful metric to help understand the profitability of our new business.

Sales are measured according to product type:

For individual insurance, sales include 100% of new annualized premiums and 10% of both excess and single premiums. For individual insurance, new annualized premiums reflect the annualized premium expected in the first year of a policy that requires premium payments for more than one year. Single premium is the lump sum premium from the sale of a single premium product, e.g. travel insurance. Sales are reported gross before the impact of reinsurance.

For group insurance, sales include new annualized premiums and administrative services only premium equivalents on new cases, as well as the addition of new coverages and amendments to contracts, excluding rate increases.

Insurance-based wealth accumulation product sales include all new deposits into variable and fixed annuity contracts. As we discontinued sales of new variable annuity contracts in the U.S. in 1Q13, subsequent deposits into existing U.S. variable annuity contracts are not reported as sales. Asia variable annuity deposits are included in APE sales.

APE sales are comprised of 100% of regular premiums and deposits and 10% of excess and single premiums and deposits for both insurance and insurance-based wealth accumulation products.

Gross flows is a new business measure presented for our Global WAM business and includes all deposits into mutual funds, group pension/retirement savings products, private wealth and institutional asset management products. Gross flows is a common industry metric for WAM businesses as it provides a measure of how successful the businesses are at attracting assets.

Net flows is presented for our Global WAM business and includes gross flows less redemptions for mutual funds, group pension/retirement savings products, private wealth and institutional asset management products. In addition, net flows include the net flows of exchange traded funds and non-proprietary product sold by Manulife Securities. Net flows is a common industry metric for WAM businesses as it provides a measure of how successful the businesses are at attracting and retaining assets. When net flows are positive, they are referred to as net inflows. Conversely, negative net flows are referred to as net outflows.

Remittances is defined as the cash remitted or available for distribution to the Manulife Group from operating subsidiaries and excess capital generated by standalone Canadian operations. It is one of the key metrics used by management to evaluate our financial flexibility.

E4 Caution regarding forward-looking statements

From time to time, MFC makes written and/or oral forward-looking statements, including in this document. In addition, our representatives may make forward-looking statements orally to analysts, investors, the media and others. All such statements are made pursuant to the “safe harbour” provisions of Canadian provincial securities laws and the U.S. Private Securities Litigation Reform Act of 1995.

The forward-looking statements in this document include, but are not limited to, statements with respect to the expected annual savings related to actions taken in the first quarter of 2021, the impact of IFRS 17 and the Company’s earnings presentation and reporting under the new accounting standard and our medium-term financial and operating targets under IFRS 17, including our core ROE target, dividend payout ratio target and new CSM targets, the impact of changes in tax laws, and the estimated timing and amount of state approved future premium increases on our U.S. LTC business and, also relate to, among other things, our objectives, goals, strategies, intentions, plans, beliefs, expectations and estimates, and can generally be identified by the use of words such as “may”, “will”, “could”, “should”, “would”, “likely”, “suspect”, “outlook”, “expect”, “intend”, “estimate”, “anticipate”, “believe”, “plan”, “forecast”, “objective”, “seek”, “aim”, “continue”, “goal”, “restore”, “embark” and “endeavour” (or the negative thereof) and words and expressions of similar import, and include statements concerning possible or assumed future results. Although we believe that the expectations reflected in such forward-looking statements are reasonable, such statements involve risks and uncertainties, and undue reliance should not be placed on such statements and they should not be interpreted as confirming market or analysts’ expectations in any way.

Certain material factors or assumptions are applied in making forward-looking statements and actual results may differ materially from those expressed or implied in such statements. Important factors that could cause actual results to differ materially from expectations include but are not limited to: general business and economic conditions (including but not limited to the performance, volatility and correlation of equity markets, interest rates, credit and swap spreads, inflation rates, currency rates, investment losses and defaults, market liquidity and creditworthiness of guarantors, reinsurers and counterparties); the ongoing prevalence of COVID-19, including any variants, as well as actions that have been, or may be taken by governmental authorities in response to COVID-

19, including the impacts of any variants; changes in laws and regulations; changes in accounting standards applicable in any of the territories in which we operate; changes in regulatory capital requirements; our ability to obtain premium rate increases on in-force policies; our ability to execute strategic plans and changes to strategic plans; downgrades in our financial strength or credit ratings; our ability to maintain our reputation; impairments of goodwill or intangible assets or the establishment of provisions against future tax assets; the accuracy of estimates relating to morbidity, mortality and policyholder behaviour; the accuracy of other estimates used in applying accounting policies, actuarial methods and embedded value methods; our ability to implement effective hedging strategies and unforeseen consequences arising from such strategies; our ability to source appropriate assets to back our long-dated liabilities; level of competition and consolidation; our ability to market and distribute products through current and future distribution channels; unforeseen liabilities or asset impairments arising from acquisitions and dispositions of businesses; the realization of losses arising from the sale of investments classified as available-for-sale; our liquidity, including the availability of financing to satisfy existing financial liabilities on expected maturity dates when required; obligations to pledge additional collateral; the availability of letters of credit to provide capital management flexibility; accuracy of information received from counterparties and the ability of counterparties to meet their obligations; the availability, affordability and adequacy of reinsurance; legal and regulatory proceedings, including tax audits, tax litigation or similar proceedings; our ability to adapt products and services to the changing market; our ability to attract and retain key executives, employees and agents; the appropriate use and interpretation of complex models or deficiencies in models used; political, legal, operational and other risks associated with our non-North American operations; geopolitical uncertainty, including international conflicts; acquisitions and our ability to complete acquisitions including the availability of equity and debt financing for this purpose; the disruption of or changes to key elements of the Company's or public infrastructure systems; environmental concerns, including climate change; our ability to protect our intellectual property and exposure to claims of infringement; and our inability to withdraw cash from subsidiaries.

Additional information about material risk factors that could cause actual results to differ materially from expectations and about material factors or assumptions applied in making forward-looking statements may be found in this document under "Risk Management and Risk Factors Update" and "Critical Actuarial and Accounting Policies", under "Risk Management and Risk Factors" and "Critical Actuarial and Accounting Policies" in the Management's Discussion and Analysis in our most recent annual report and, in the "Risk Management" note to the consolidated financial statements in our most recent annual and interim reports and elsewhere in our filings with Canadian and U.S. securities regulators.

The forward-looking statements in this document are, unless otherwise indicated, stated as of the date hereof and are presented for the purpose of assisting investors and others in understanding our financial position and results of operations, our future operations, as well as our objectives and strategic priorities, and may not be appropriate for other purposes. We do not undertake to update any forward-looking statements, except as required by law.

E5 Quarterly financial information

The following table provides summary information related to our eight most recently completed quarters.

As at and for the three months ended (\$ millions, except per share amounts or otherwise stated, unaudited)	Sept 30, 2022	Jun 30, 2022	Mar 31, 2022	Dec 31, 2021	Sept 30, 2021	Jun 30, 2021	Mar 31, 2021	Dec 31, 2020
Revenue								
Premium income								
Life and health insurance	\$ 8,710	\$ 8,783	\$ 9,521	\$ 9,159	\$ 9,269	\$ 8,716	\$ 8,986	\$ 8,651
Annuities and pensions ⁽¹⁾	762	844	(19)	901	714	698	622	672
Net premium income	9,472	9,627	9,502	10,060	9,983	9,414	9,608	9,323
Investment income	3,883	3,675	3,417	4,350	3,964	4,099	3,214	4,366
Realized and unrealized gains and losses on assets supporting insurance and investment contract liabilities ⁽²⁾	(7,955)	(17,760)	(18,540)	4,460	(958)	9,551	(17,056)	1,683
Other revenue	2,377	2,057	1,991	2,741	2,994	2,760	2,637	2,497
Total revenue	\$ 7,777	\$(2,401)	\$(3,630)	\$21,611	\$15,983	\$25,824	\$(1,597)	\$17,869
Income (loss) before income taxes	\$ 1,637	\$ 1,257	\$ 3,711	\$ 2,481	\$ 1,480	\$ 3,292	\$ 872	\$ 2,065
Income tax (expense) recovery	(332)	(258)	(809)	(430)	(166)	(610)	(7)	(224)
Net income (loss)	\$ 1,305	\$ 999	\$ 2,902	\$ 2,051	\$ 1,314	\$ 2,682	\$ 865	\$ 1,841
Net income (loss) attributed to shareholders	\$ 1,347	\$ 1,086	\$ 2,970	\$ 2,084	\$ 1,592	\$ 2,646	\$ 783	\$ 1,780
Basic earnings (loss) per common share	\$ 0.68	\$ 0.53	\$ 1.51	\$ 1.04	\$ 0.80	\$ 1.33	\$ 0.38	\$ 0.90
Diluted earnings (loss) per common share	\$ 0.68	\$ 0.53	\$ 1.50	\$ 1.03	\$ 0.80	\$ 1.33	\$ 0.38	\$ 0.89
Segregated funds deposits	\$ 9,841	\$10,094	\$12,328	\$10,920	\$10,929	\$10,301	\$12,395	\$ 9,741
Total assets (in billions)	\$ 835	\$ 821	\$ 865	\$ 918	\$ 898	\$ 879	\$ 859	\$ 880
Weighted average common shares (in millions)	1,902	1,921	1,938	1,943	1,942	1,942	1,941	1,940
Diluted weighted average common shares (in millions)	1,904	1,924	1,942	1,946	1,946	1,946	1,945	1,943
Dividends per common share	\$ 0.330	\$ 0.330	\$ 0.330	\$ 0.330	\$ 0.280	\$ 0.280	\$ 0.280	\$ 0.280
CDN\$ to US\$1 - Statement of Financial Position	1.3740	1.2900	1.2496	1.2678	1.2741	1.2394	1.2575	1.2732
CDN\$ to US\$1 - Statement of Income	1.3057	1.2765	1.2663	1.2601	1.2602	1.2282	1.2660	1.3030

⁽¹⁾ Includes lower revenue related to the reinsurance of a block of our legacy U.S. variable annuity business of US\$0.9 billion in 1Q22.

⁽²⁾ For fixed income assets supporting insurance and investment contract liabilities and for equities supporting pass-through products and derivatives related to variable hedging programs, the impact of realized and unrealized gains (losses) on the assets is largely offset in the change in insurance and investment contract liabilities.

E6 Other

No changes were made in our internal control over financial reporting during the nine months ended September 30, 2022, that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

As in prior quarters, MFC's Audit Committee has reviewed this MD&A and the unaudited interim financial report and MFC's Board of Directors approved this MD&A prior to its release.