



Manulife Financial Corporation

Management's Discussion and Analysis

For the three and nine months ended September 30, 2021

MANAGEMENT'S DISCUSSION AND ANALYSIS

This Management's Discussion and Analysis ("MD&A") is current as of November 3, 2021, 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, 2021 and the MD&A and audited Consolidated Financial Statements contained in our 2020 Annual Report.

For further information relating to our risk management practices and risk factors affecting the Company, see "Risk Factors and Risk Management" and "Critical Actuarial and Accounting Policies" in the MD&A in our 2020 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.

Contents

A. TOTAL COMPANY PERFORMANCE

1. Profitability
2. Business performance
3. Financial strength
4. Revenue
5. Assets under management and administration
6. Impact of fair value accounting
7. Impact of foreign currency exchange rates
8. Business highlights
9. Mosten litigation and regulatory update
10. Strategic priorities

B. PERFORMANCE BY SEGMENT

1. Asia
2. Canada
3. U.S.
4. Global Wealth and Asset Management
5. Corporate and Other

C. RISK MANAGEMENT AND RISK FACTORS UPDATE

1. Variable annuity and segregated fund guarantees
2. Caution related to sensitivities
3. Publicly traded equity performance risk
4. Interest rate and spread risk sensitivities and exposure measures
5. Alternative long-duration asset performance risk
6. Credit risk exposure measures
7. Risk factors – strategic risk from changes in tax laws

D. CRITICAL ACTUARIAL AND ACCOUNTING POLICIES

1. Critical actuarial and accounting policies
2. Actuarial methods and assumptions
3. Sensitivity of earnings to asset related assumptions
4. Accounting and reporting changes

E. OTHER

1. Outstanding common shares - selected information
2. Legal and regulatory proceedings
3. Performance and non-GAAP measures
4. Caution regarding forward-looking statements
5. Quarterly financial information
6. Other

A TOTAL COMPANY PERFORMANCE

A1 Profitability

(\$ millions, unless otherwise stated)	Quarterly Results			YTD Results	
	3Q21	2Q21	3Q20	2021	2020
Net income attributed to shareholders	\$ 1,592	\$ 2,646	\$ 2,068	\$ 5,021	\$ 4,091
Core earnings ⁽¹⁾	\$ 1,517	\$ 1,682	\$ 1,453	\$ 4,828	\$ 4,042
Diluted earnings per common share (\$)	\$ 0.80	\$ 1.33	\$ 1.04	\$ 2.51	\$ 2.04
Diluted core earnings per common share ("Core EPS") (\$) ⁽¹⁾	\$ 0.76	\$ 0.83	\$ 0.73	\$ 2.41	\$ 2.01
Return on common shareholders' equity ("ROE")	12.6%	22.2%	16.4%	13.7%	10.8%
Core ROE ⁽¹⁾	12.0%	13.9%	11.4%	13.2%	10.6%
Expense efficiency ratio ⁽¹⁾	51.3%	46.8%	51.2%	48.9%	52.9%

⁽¹⁾ This item is a non-GAAP measure. See "Performance and non-GAAP measures" below.

Quarterly profitability

Manulife's net income attributed to shareholders was \$1,592 million in the third quarter of 2021 ("3Q21") compared with \$2,068 million in the third quarter of 2020 ("3Q20"). Net income attributed to shareholders is comprised of core earnings¹ (consisting of items we believe reflect the underlying earnings capacity of the business), which amounted to \$1,517 million in 3Q21 compared with \$1,453 million in 3Q20, and items excluded from core earnings, which amounted to a net gain of \$75 million in 3Q21 compared with a net gain of \$615 million in 3Q20. The effective tax rate on net income attributed to shareholders in 3Q21 was 10% compared with 15% in 3Q20, reflecting differences in the jurisdictional mix of pre-tax profits and losses.

Net income attributed to shareholders decreased \$476 million compared with 3Q20, driven by a \$532 million charge related to the impact of updated Ultimate Reinvestment Rate ("URR") assumptions issued by the Canadian Actuarial Standards Board, which is a component of the direct impact of markets. This compares with gains on this line in 3Q20. The year-over-year change in the direct impact of markets was partially offset by more favourable investment related experience, which reflected higher-than-expected returns (including fair value changes) on alternative long-duration assets ("ALDA"), primarily due to fair value gains on private equity investments, the favourable impact of fixed income reinvestment activities and favourable credit experience.

Core earnings increased \$64 million or 10% on a constant exchange rate basis² compared with 3Q20. The increase in core earnings in 3Q21 compared with 3Q20 was driven by the recognition of core investment gains¹ in the quarter (compared with nil core investment gains in 3Q20), higher net fee income from higher average assets under management and administration ("average AUMA")¹ in Global Wealth and Asset Management ("Global WAM"), which benefitted from the favourable impact of markets and net inflows, higher new business gains, in-force business growth in Canada and Asia, and favourable policyholder experience in Canada. These items were partially offset by a \$152 million (\$155 million pre-tax) charge in our Property and Casualty ("P&C") Reinsurance business for estimated losses related to Hurricane Ida and the European floods and unfavourable policyholder experience in Asia and the U.S. Core earnings in 3Q21 included a net insurance and annuity policyholder experience charge of \$50 million (\$53 million pre-tax) compared with a charge of \$25 million (\$38 million pre-tax) in 3Q20.³

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.

¹ This item is a non-GAAP measure. See "Performance and non-GAAP measures" below.

² Percentage growth / declines in core earnings, core general expenses, pre-tax core earnings, APE sales, gross flows, NBV, assets under management and administration, assets under management, core EBITDA and Global Wealth and Asset Management revenue are stated on a constant exchange rate basis. Constant exchange rate basis is a non-GAAP measure. See "Performance and non-GAAP measures" below.

³ Policyholder experience includes gains of \$5 million post-tax in 3Q21 (3Q20 – gains of \$13 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.

Year-to-date profitability

Net income attributed to shareholders for the nine months ended September 30, 2021 was \$5,021 million compared with \$4,091 million for the nine months ended September 30, 2020. Year-to-date core earnings amounted to \$4,828 million in 2021 compared with \$4,042 million in the same period of 2020, and items excluded from year-to-date core earnings amounted to a net gain of \$193 million in 2021 compared with a net gain of \$49 million in the same period of 2020. The effective tax rate on year-to-date net income attributed to shareholders was 13% in 2021 compared with 19% for the same period in 2020, reflecting differences in the jurisdictional mix of pre-tax profits and losses.

The increase of \$930 million in year-to-date net income attributed to shareholders in 2021 compared with 2020 reflects an increase in year-to-date core earnings of \$786 million and a net gain of \$193 million in items excluded from year-to-date core earnings in 2021 compared with a net gain of \$49 million in 2020.

The \$786 million or 28% increase in year-to-date core earnings compared with the same period of 2020 was driven by higher new business gains, the recognition of core investment gains in the first nine months of 2021 (compared with nil core investment gains in the same period of 2020), higher net fee income from higher average AUMA in Global WAM, which benefitted from the favourable impact of markets and net inflows, in-force business growth and higher investment income in Corporate and Other, including net gains from available-for-sale (“AFS”) equities and seed money investments in new segregated and mutual funds in the first nine months of 2021 (compared with net losses in the prior year), partially offset by lower yields from fixed income investments in 2021. This increase was partially offset by a \$152 million charge (\$155 million pre-tax) in our P&C Reinsurance business for estimated losses related to Hurricane Ida and the European floods and unfavourable policyholder experience. Year-to-date net policyholder insurance and annuity experience was a charge of \$13 million (\$7 million pre-tax) in 2021 compared with gains of \$110 million (\$114 million pre-tax) in the same period of 2020.¹ Actions to improve the capital efficiency of our legacy businesses resulted in \$3 million lower year-to-date core earnings in 2021 compared with 2020.

Core earnings by segment and the items excluded from core earnings are outlined in the tables below. On a year-to-date basis, the items excluded from core earnings were a net gain of \$193 million in 2021, consisting of a net gain from investment-related experience, reinsurance transactions and tax related and other items partially offset by a net charge from the direct impact of markets, a restructuring charge and a \$41 million charge from the change in actuarial methods and assumptions.

Core earnings by segment and the items excluded from core earnings are outlined in the tables below.

Core earnings by segment and components of items excluded from core earnings

Core Earnings by Segment ⁽¹⁾ (\$ millions, unaudited)	Quarterly Results			YTD Results	
	3Q21	2Q21	3Q20	2021	2020
Asia	\$ 533	\$ 526	\$ 559	\$ 1,629	\$ 1,539
Canada	311	318	279	893	858
U.S.	490	478	498	1,469	1,516
Global Wealth and Asset Management	351	356	308	1,019	796
Corporate and Other (excluding core investment gains)	(268)	(96)	(191)	(482)	(667)
Core investment gains ^{(1),(2)}	100	100	-	300	-
Total core earnings	\$ 1,517	\$ 1,682	\$ 1,453	\$ 4,828	\$ 4,042

⁽¹⁾ This item is a non-GAAP measure. See “Performance and non-GAAP measures” below.

⁽²⁾ As outlined in our definition of core earnings in section E3: 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.

¹ Year-to-date policyholder experience includes gains of \$24 million post-tax in 2021 (2020 – gains of \$47 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 VHIS products. These gains did not have a material impact on year-to-date core earnings as they were mostly offset by new business strain.

Items excluded from core earnings (\$ millions, unaudited)	Quarterly Results			YTD Results	
	3Q21	2Q21	3Q20	2021	2020
Investment-related experience outside of core earnings ⁽¹⁾	\$ 700	\$ 739	\$ 147	\$ 1,516	\$ (1,377)
Direct impact of equity markets and interest rates and variable annuity guarantee liabilities ⁽²⁾	(597)	217	390	(1,215)	1,255
<i>Direct impact of equity markets and variable annuity guarantee liabilities</i>	(15)	177	162	165	(579)
<i>Fixed income reinvestment rates assumed in the valuation of policy liabilities</i>	(44)	76	142	(800)	(169)
<i>Sale of AFS bonds and, impact of derivative positions in the Corporate and Other segment</i>	(6)	(36)	86	(48)	2,003
<i>Changes to the ultimate reinvestment rate</i>	(532)	-	-	(532)	-
Change in actuarial methods and assumptions ⁽³⁾	(41)	-	(198)	(41)	(198)
Reinsurance transactions ⁽⁴⁾	13	8	276	29	297
Restructuring charge	-	-	-	(115)	-
Tax-related items and other	-	-	-	19	72
Items excluded from core earnings	\$ 75	\$ 964	\$ 615	\$ 193	\$ 49

⁽¹⁾ Total investment-related experience in 3Q21 was a net gain of \$800 million, compared with a net gain of \$147 million in 3Q20, and in accordance with our definition of core earnings, we included \$100 million of investment-related experience gains in core earnings and a \$700 million gain in items excluded from core earnings in 3Q21 (no core investment gains and a gain of \$147 million, respectively, in 3Q20). 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. Investment-related experience gains in 3Q20 reflected the favourable impact of fixed income reinvestment activities and higher-than-expected returns (including fair value changes) on ALDA primarily driven by fair value gains on private equity, partially offset by modest credit losses and the estimated impact of the sale of NAL Resources Limited, a wholly owned oil & gas subsidiary, to Whitecap Resources Inc., which closed on January 4, 2021.

⁽²⁾ 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. The direct impact of markets was a net gain of \$390 million in 3Q20 driven by strong equity market performance, higher fixed income reinvestment rates and gains on the sale of AFS bonds. The gain from fixed income reinvestment rates reflected nonparallel movement in swap spreads, partially offset by narrowing corporate spreads, primarily in the U.S.

⁽³⁾ Refer to section D2 "Actuarial methods and assumptions" below for detail.

⁽⁴⁾ Reinsurance transactions in Asia contributed gains of \$13 million in 3Q21. In 3Q20, reinsurance transactions in the U.S., Asia and Canada contributed gains of \$262 million, \$8 million and \$6 million, respectively.

The **expense efficiency ratio**¹ was 51.3% for 3Q21, compared with 51.2% in 3Q20. The ratio was driven by an 8% increase in pre-tax core earnings¹ compared with 3Q20 and a 7% increase in general expenses included in core earnings ("core general expenses").¹ We continue to focus on expense discipline to achieve our goal of consistently achieving a ratio of less than 50%.

On a year-to-date basis, the expense efficiency ratio was 48.9% in 2021 compared with 52.9% in 2020. The 4.0 percentage point improvement in the ratio compared with 2020 was driven by a 27% increase in year-to-date pre-tax core earnings and a 6% increase in year-to-date core general expenses.

¹ This item is a non-GAAP measure. See "Performance and non-GAAP measures" below.

A2 Business performance⁽¹⁾

(\$ millions, unless otherwise stated) (unaudited)	Quarterly Results			YTD Results	
	3Q21	2Q21	3Q20	2021	2020
Asia APE sales	\$ 930	\$ 950	\$ 1,005	\$ 3,160	\$ 2,873
Canada APE sales	\$ 303	\$ 274	\$ 289	\$ 932	\$ 903
U.S. APE sales	\$ 203	\$ 191	\$ 136	\$ 544	\$ 431
Total APE sales	\$ 1,436	\$ 1,415	\$ 1,430	\$ 4,636	\$ 4,207
Asia new business value	\$ 399	\$ 399	\$ 365	\$ 1,275	\$ 1,019
Canada new business value	\$ 71	\$ 76	\$ 67	\$ 225	\$ 190
U.S. new business value	\$ 69	\$ 75	\$ 28	\$ 188	\$ 104
Total new business value	\$ 539	\$ 550	\$ 460	\$ 1,688	\$ 1,313
Global Wealth and Asset Management net flows (\$ billions)	\$ 9.8	\$ 8.6	\$ (2.2)	\$ 19.8	\$ 6.1
Global Wealth and Asset Management gross flows (\$ billions)	\$ 35.2	\$ 33.7	\$ 27.5	\$ 108.7	\$ 98.7
Global Wealth and Asset Management assets under management and administration (\$ billions)	\$ 823.6	\$ 798.5	\$ 715.4	\$ 823.6	\$ 715.4

⁽¹⁾ These items are non-GAAP measures. See "Performance and non-GAAP measures" below.

Annualized premium equivalent ("APE") sales¹ were \$1.4 billion in 3Q21, an increase of 5% compared with 3Q20. In Asia, APE sales decreased 2% compared with 3Q20 as growth in Hong Kong and Asia Other² was more than offset by lower Corporate Owned Life Insurance ("COLI") product sales in Japan. In Hong Kong, APE sales increased 12% compared with 3Q20 reflecting strong growth in our bank channel, demand from mainland Chinese visitors through our Macau branch and an expanded agency force. Sales continued to be dampened by COVID-19 containment measures as cross-border travel between Hong Kong and China remains constrained. Asia Other APE sales increased 8% compared with 3Q20, as higher sales in bancassurance were partially offset by lower agency sales, which were adversely impacted by COVID-19 containment measures in markets such as Vietnam and Indonesia. In Japan, APE sales declined 50% compared with 3Q20, primarily due to a decrease in COLI product sales. In Canada, APE sales increased 5% compared with 3Q20, primarily driven by higher individual insurance sales and increased customer demand for our lower risk segregated fund products, partially offset by variability in the large-case group insurance market. In the U.S., APE sales increased 58% compared with 3Q20, due to higher customer demand for international, domestic indexed universal life and variable universal life product offerings. APE sales of products with the John Hancock Vitality PLUS feature in 3Q21 increased 84% compared with 3Q20. This feature continues to be a differentiator in the market, particularly in the current environment of greater consumer interest in improving baseline health.

Year-to-date APE sales of \$4.6 billion in 2021 were 15% higher than the same period of 2020, driven by higher sales in across all segments.

New business value ("NBV")¹ was \$539 million in 3Q21, an increase of 22% compared with 3Q20. In Asia, NBV increased 15% compared with 3Q20 to \$399 million, reflecting higher sales volumes in Hong Kong and Asia Other and favourable interest rates and product management actions in Hong Kong, partially offset by a decline in Japan due to lower COLI product sales. In Canada, NBV of \$71 million was up 6% compared with 3Q20, primarily due to the impact of higher margins in annuities and continued growth in individual insurance, partially offset by lower volumes in group insurance. In the U.S., NBV of \$69 million was up 162% compared with 3Q20, primarily driven by higher sales volumes and favourable product mix, notably due to higher international sales.

Year-to-date NBV was \$1.7 billion in 2021, an increase of 36% compared with the same period of 2020 largely due to higher APE sales volume, favourable product mix and favourable interest rates.

Global Wealth and Asset Management reported net inflows¹ of \$9.8 billion in 3Q21 compared with net outflows of \$2.2 billion in 3Q20. Net inflows in Retail were \$7.9 billion in 3Q21 compared with net inflows of

¹ This item is a non-GAAP measure. See "Performance and non-GAAP measures" below.

² Asia Other excludes Japan and Hong Kong.

\$0.7 billion in 3Q20, driven by double-digit growth in gross flows¹ across all geographies amid increased investor demand as well as lower mutual fund redemption rates. Net inflows in Institutional Asset Management were \$1.3 billion in 3Q21 compared with net outflows of \$3.9 billion in 3Q20, driven by the non-recurrence of a \$5.0 billion redemption in Europe in 3Q20, and higher sales of timberland mandates in the U.S., partially offset by lower gross flows of fixed income products in China. Net inflows in Retirement were \$0.6 billion in 3Q21 compared with net inflows of \$1.0 billion in 3Q20, reflecting higher plan redemptions, partially offset by growth in member contributions and new plan sales.

Year-to-date net inflows were \$19.8 billion in 2021, compared with \$6.1 billion for the same period of 2020. The increase was primarily driven by Retail, from higher net inflows across all geographies, and the non-recurrence of the \$5.0 billion institutional redemption in 2020. This increase was partially offset by a \$9.4 billion institutional redemption in Asia and the non-recurrence of a \$6.9 billion institutional sale in Canada in 2020.

A3 Financial strength

(unaudited)	Quarterly Results			YTD Results	
	3Q21	2Q21	3Q20	2021	2020
MLI's LICAT ratio	138%	137%	155%	138%	155%
Financial leverage ratio	25.5%	25.9%	26.7%	25.5%	26.7%
Consolidated capital (\$ billions) ⁽¹⁾	\$ 63.1	\$ 61.4	\$ 62.1	\$ 63.1	\$ 62.1
Book value per common share (\$)	\$ 25.78	\$ 24.76	\$ 25.49	\$ 25.78	\$ 25.49
Book value per common share excluding AOCI (\$)	\$ 23.41	\$ 22.89	\$ 21.13	\$ 23.41	\$ 21.13

⁽¹⁾ This item is a non-GAAP measure. See "Performance and non-GAAP measures" below.

The Life Insurance Capital Adequacy Test ("LICAT") ratio for The Manufacturers Life Insurance Company ("MLI") as at September 30, 2021 was 138% compared with 137% as at June 30, 2021. The one percentage point increase was mainly due to the favourable impacts from market movements and portfolio optimization initiatives, partially offset by a modest net unfavourable capital impact related to the annual review of actuarial methods and assumptions.

MFC's LICAT ratio was 129% as at September 30, 2021, compared with 127% as at June 30, 2021. The difference between the MLI and MFC ratios as at June 30, 2021 was largely due to the \$4.9 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, it qualifies as regulatory capital for MLI.

MFC's financial leverage ratio as at September 30, 2021 was 25.5%, a decrease of 0.4 percentage points from 25.9% as at June 30, 2021. The decrease in the ratio was driven by growth in retained earnings and the favourable impact of a weaker Canadian dollar, partially offset by a reduction in participating policyholders' equity.

MFC's consolidated capital¹ was \$63.1 billion as at September 30, 2021, an increase of \$2.0 billion compared with \$61.1 billion as at December 31, 2020, driven by growth in retained earnings.

Cash and cash equivalents and marketable securities² was \$263.1 billion as at September 30, 2021 in line with \$262.9 billion as at December 31, 2020.

Book value per common share as at September 30, 2021 was \$25.78, a 3% increase compared with \$25.00 as at December 31, 2020. Book value per common share excluding accumulated other comprehensive income ("AOCI") was \$23.41 as at September 30, 2021, an 8% increase compared with \$21.74 as at December 31, 2020. The number of common shares outstanding was 1,942 million as at September 30, 2021 and was 1,940 million as at December 31, 2020.

¹ This item is a non-GAAP measure. See "Performance and non-GAAP measures" below.

² 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.

A4 Revenue

(\$ millions, unaudited)	Quarterly Results			YTD Results	
	3Q21	2Q21	3Q20	2021	2020
Gross premiums	\$ 11,233	\$ 10,614	\$ 10,376	\$ 32,839	\$ 30,639
Premiums ceded to reinsurers	(1,250)	(1,200)	(4,370)	(3,834)	(7,045)
Net premium income	9,983	9,414	6,006	29,005	23,594
Investment income	3,964	4,099	3,521	11,277	12,067
Other revenue	2,994	2,760	2,749	8,391	8,094
Revenue before realized and unrealized investment gains and losses	16,941	16,273	12,276	48,673	43,755
Realized and unrealized gains and losses on assets supporting insurance and investment contract liabilities and on the macro hedge program ⁽¹⁾	(958)	9,551	1,100	(8,463)	17,284
Total revenue	\$ 15,983	\$ 25,824	\$ 13,376	\$ 40,210	\$ 61,039

⁽¹⁾ See section A6 "Impact of fair value accounting". Also see section A1 "Profitability - Items excluded from core earnings" for information on the direct impact of equity markets and interest rates and variable annuity guarantee liabilities.

Total revenue in 3Q21 was \$16.0 billion compared with \$13.4 billion in 3Q20. 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 "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.

3Q21 revenue before realized and unrealized investment gains and losses of \$16.9 billion increased \$4.7 billion compared with 3Q20, driven primarily by the non-recurrence of a large ceded premium from the reinsurance of a block of legacy U.S. Bank-Owned Life Insurance ("BOLI") business in 3Q20 and higher premiums from in-force business growth.

Net realized and unrealized investment gains and losses on assets supporting insurance and investment contract liabilities and on the macro hedge program was a net charge of \$1.0 billion in 3Q21 compared with a net gain of \$1.1 billion in 3Q20. 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. The 3Q20 gain was due the impact of declines in interest rates on corporate bonds, primarily in the U.S., and fair value gains on private equities. The impact of growth in equity markets in North America and Asia was mostly offset by losses from derivatives hedging our equity exposure.

On a year-to-date basis, revenue before net realized and unrealized investment gains and losses of \$48.7 billion was \$4.9 billion higher than the same period of 2020 due to similar factors noted above. Net realized and unrealized investment gains and losses on assets supporting insurance and investment contract liabilities and on the macro hedge program was a net charge of \$8.5 billion in 2021 compared with a net gain of \$17.3 billion in 2020. The year-to-date charge in 2021 was primarily due to the impact of interest rate increases in North America and Asia partially offset by fair value gains in ALDA and overall growth in equity markets. The year-to-date gain in 2020 was primarily due to the impact of interest rate declines in North America and gains from derivatives hedging our equity exposure.

See section A6 "Impact of fair value accounting" below. Also, see section A1 for additional information on the impact on 3Q21 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")¹

AUMA as at September 30, 2021 was \$1.4 trillion, an increase of 7% compared with December 31, 2020, primarily due to the favourable impact of markets and year-to-date net inflows.

¹ This item is a non-GAAP measure. See "Performance and non-GAAP measures" below.

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 “Profitability” section above for discussion of 3Q21 experience).

Net realized and unrealized investment losses on assets supporting insurance and investment contract liabilities and on the macro hedge program were \$1.0 billion for 3Q21 (3Q20 – net gains of \$1.1 billion) and on a year-to-date basis, were net losses of \$8.5 billion for 2021 (2020 – net gains of \$17.3 billion). See “Revenue” section above for discussion of results.

As outlined in “Critical Actuarial and Accounting Policies” in the MD&A in our 2020 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 “Performance and non-GAAP measures” below.

As noted in “Critical Actuarial and Accounting Policies – Future Accounting and Reporting Changes” in the MD&A in our 2020 Annual Report, IFRS 17 “Insurance Contracts” will replace IFRS 4 and therefore CALM 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. The measurement of the discount rate used to estimate the present value of insurance contract liabilities and the reporting of new business gains are among the more significant changes. Under IFRS 17, new business gains are recorded on the balance sheet (in the contractual service margin component of insurance contract liabilities) and are amortized into income as services are provided. We reported \$262 million (post-tax) of new business gains in net income attributed to shareholders in 3Q21 (3Q20 – \$232 million) and \$820 million (post-tax) for year-to-date 2021 (2020 – \$543 million).

A7 Impact of foreign currency exchange rates

Changes in foreign currency exchange rates from 3Q20 to 3Q21, primarily due to a stronger Canadian dollar compared with the U.S. dollar, decreased core earnings by \$68 million in 3Q21. Changes in foreign currency exchange rates decreased year-to-date core earnings by \$298 million in 2021 compared with the same period of 2020. 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

Global WAM was accepted as a signatory to the UK Stewardship Code, which is regarded as one of the most comprehensive set of sustainable investment standards in the industry. This result is a testament to the strength of our investment approach and ability to pursue sustainable investment solutions for our clients. In Asia, we continued to expand our footprint in China as Manulife-Sinochem opened its 15th provincial branch in Shaanxi province. In the U.S., we experienced sales momentum, which was supported by a 2-placement increase in

market ranking to seventh in brokerage¹ as well as the highest quarterly sales of international products in the 17-year history of our high net worth business.

In 3Q21, we continued to make progress on our digital journey. In Asia, we launched Singapore's first in market flexible digital retirement plan with DBS Bank. The product offers customers multiple flexible options to tailor a plan that best serves their financial and retirement needs. In Canada, our group benefits team launched a digital process of collecting medical evidence required to review and approve short-term absence claims from doctors. Additionally, we have rolled-out Microsoft's Azure Machine Learning technology in Canada and the U.S., allowing us to leverage large data sets to mine insights, drive business growth, and improve customer experience. This technology represents a meaningful shift to greater cloud capabilities. In Global WAM, our Asia online investment platform, Manulife iFunds continued to show strong momentum aided by Malaysia, where sales and digital applications have increased significantly year over year.

A9 Mosten litigation and regulatory update

In our third quarter of 2018 MD&A, we disclosed developments in the litigation Mosten Investment LP ("Mosten") brought against the Company in Saskatchewan. The basis of the claims by Mosten has been that life insurers can be compelled to accept unlimited premium payments into certain universal life policies and associated side accounts. In effect, Mosten was seeking to use insurance policies to invest sizeable sums that have no connection to the insurance coverage.

On October 4, 2018 Manulife issued a press release regarding certain short-selling activity relating to the Mosten litigation, stating that the short seller's report was an attempt to profit at the expense of our shareholders. We further stated that we disagree with the conclusions of the report and that we continue to believe that Mosten's position is legally unfounded as we firmly believe that the consumers purchasing universal life policies, and the insurers issuing these policies, never intended to have the policies function as deposit or securities contracts. On October 29, 2018, the Government of Saskatchewan published new regulations that limit the amount of premiums a life insurer may receive or accept for deposit in certain life insurance policies and associated side accounts. In his March 15, 2019 decision, the trial judge accepted Manulife's position on the interpretation of the policies, namely that they do not permit making unlimited deposits for investment purposes unrelated to the payment of life insurance premiums. The trial judge also ruled that the 2018 regulations had prospective effect only with respect to new policies issued after the date of the regulation.

In its March 10, 2021 decision, the Saskatchewan Court of Appeal rejected the trial judge's interpretation of the policies but, ruling in Manulife's favour, held that the 2018 regulations (and subsequent 2020 regulations) operate prospectively in a manner that prohibits Saskatchewan-licensed insurers from accepting deposits that do not relate to the payment of life insurance premiums, thereby preventing Mosten from using existing or new insurance policies as an investment vehicle. Similar legislation has been enacted by the governments of Ontario, Prince Edward Island, Alberta, New Brunswick, Nova Scotia and Quebec. On May 10, 2021 Manulife received notice that Mosten has sought leave to appeal the Saskatchewan Court of Appeal's decision regarding the regulations to the Supreme Court of Canada. Manulife has opposed Mosten's application for leave to appeal and has also sought leave to cross-appeal the Saskatchewan Court of Appeal's decision regarding interpretation of the policies to the Supreme Court of Canada.

A10 Strategic priorities²

At Manulife's Investor Day on June 29, 2021, we announced that we have entered a new phase of our strategy, with a greater focus on accelerating growth of our highest potential businesses and a commitment to meaningful metrics to measure our progress through to 2025. We are confident our five strategic priorities remain the right areas of focus to achieve our ambition of being the most digital, customer-centric global company in our industry.

- **Accelerate Growth** – we remain committed to generating two-thirds of core earnings from our highest

¹ LIMRA second quarter 2021 industry survey. Ranking reflects variable, universal and total Life products based on 100% of recurring premium plus 10% of single premium plus 10% of excess premium.

² See "Caution regarding forward-looking statements".

potential businesses by 2022 and will target a 75% contribution by 2025. We also aspire to generate one-half of core earnings from our Asia region (Asia segment and Asia WAM) by 2025.

- **Digital, Customer Leader** – we remain committed to a Net Promoter Score (“NPS”)¹ of +31 by 2022, and will target NPS of +37 by 2025. We also introduced a new metric, straight-through-processing (“STP”)², which represents customer interactions that are completely digital, and aim to achieve STP of 88% by 2025.
- **Expense Efficiency** – we have already delivered on our original 2022 target of \$1 billion in expense efficiencies. We remain focused on driving efficient growth and are committed to consistently achieving an expense efficiency ratio of less than 50% by 2022 and beyond.
- **Portfolio Optimization** – we have already surpassed our original target to release \$5 billion of capital by 2022 and will continue to focus on portfolio optimization. Together with a focus on increasing the core earnings from our highest potential businesses, we will continue to focus on optimizing our legacy businesses in the next phase of our strategy and we plan to reduce the combined contributions from long-term care insurance and variable annuities businesses to less than 15% of core earnings by 2025 through organic optimization.
- **High Performing Team** – we are committed to enabling a high performing team and maintaining our top quartile employee engagement compared to global financial services and insurance peers.

We also announced that we remain committed to our medium-term targets including: core EPS³ growth of 10% to 12% over the medium term, core ROE³ of 13% or more, a leverage ratio of 25%, and a common share dividend payout ratio of 30% to 40% of core earnings.

B PERFORMANCE BY SEGMENT

B1 Asia

(\$ millions, unless otherwise stated) <i>Canadian dollars</i>	Quarterly Results			YTD Results	
	3Q21	2Q21	3Q20	2021	2020
Net income attributed to shareholders ⁽¹⁾	\$ 822	\$ 633	\$ 651	\$ 2,412	\$ 1,123
Core earnings ⁽¹⁾	533	526	559	1,629	1,539
Annualized premium equivalent sales	930	950	1,005	3,160	2,873
New business value	399	399	365	1,275	1,019
Revenue	6,658	9,122	7,161	21,620	20,149
Revenue before realized and unrealized investment gains and losses ⁽²⁾	7,191	6,603	6,353	21,015	18,583
Assets under management (\$ billions) ⁽³⁾	149.8	141.9	134.5	149.8	134.5
<i>U.S. dollars</i>					
Net income attributed to shareholders ⁽¹⁾	US\$ 654	US\$ 515	US\$ 489	US\$ 1,924	US\$ 832
Core earnings ⁽¹⁾	424	427	420	1,301	1,138
Annualized premium equivalent sales	738	773	755	2,521	2,128
New business value	317	325	274	1,018	754
Revenue	5,285	7,426	5,378	17,321	14,852
Revenue before realized and unrealized investment gains and losses ⁽²⁾	5,708	5,376	4,770	16,785	13,749
Assets under management (\$ billions) ⁽³⁾	117.6	114.6	100.8	117.6	100.8

⁽¹⁾ See “Performance and non-GAAP measures” for a reconciliation between net income (loss) attributed to shareholders and core earnings.

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

⁽³⁾ This item is a non-GAAP measure. See “Performance and non-GAAP measures” below.

¹ Relationship Net Promoter Score. In 2021, we adjusted the weightings in our relationship NPS methodology to more closely align with our focus on our highest potential businesses with a second quarter of 2021 (“2Q21”) NPS of +19. This adjustment had no impact on the 2017 NPS baseline of +1 and would have modestly increased the score in 2018, 2019, and 2020.

² Straight-through processing includes money movement.

³ This item is a non-GAAP measure. See “Performance and non-GAAP measures” below.

Asia's net income attributed to shareholders was \$822 million in 3Q21 compared with \$651 million in 3Q20. Net income attributed to shareholders is comprised of core earnings, which was \$533 million in 3Q21 compared with \$559 million in 3Q20, and items excluded from core earnings, which amounted to a net gain of \$289 million in 3Q21 compared with a net gain of \$92 million in 3Q20. 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 \$33 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\$654 million in 3Q21 compared with US\$489 million in 3Q20 and core earnings were US\$424 million in 3Q21 compared with US\$420 million in 3Q20. Items excluded from core earnings were a net gain of US\$230 million in 3Q21 compared with a net gain of US\$69 million in 3Q20 (see a reconciliation of net income (loss) attributed to shareholders to core earnings in "Performance and non-GAAP measures" below).

Core earnings in 3Q21 increased 1% compared with 3Q20, driven by in-force business growth offset by unfavourable policyholder experience, which included modest COVID-19 related claims losses, and lower new business gains, due to lower volumes reflecting COVID-19 containment measures in several emerging markets and lower COLI sales in Japan, partially offset by favourable product mix. In addition, investment income on allocated capital reduced core earnings by US\$5 million (see Corporate and Other segment).

Year-to-date net income attributed to shareholders was US\$1,924 million in 2021 compared with US\$832 million in the same period of 2020. Year-to-date core earnings of US\$1,301 million in 2021 increased 13% compared with the same period of 2020 due to higher new business volumes and favourable product mix, in-force business growth, and a dampened impact of COVID-19 in the first nine months of 2021 compared with the same period in 2020, partially offset by unfavourable policyholder experience and US\$15 million of lower investment income on allocated capital (see Corporate and Other Segment). Items excluded from year-to-date core earnings were a net gain of US\$623 million in 2021 compared with a net charge of US\$306 million for the same period of 2020 (see a reconciliation of net income (loss) attributed to shareholders to core earnings in "Performance and non-GAAP measures" below). Expressed in Canadian dollars, year-to-date core earnings reflected a net \$119 million unfavourable impact of changes in foreign currency exchange rates versus the Canadian dollar.

APE sales in 3Q21 were US\$738 million, a decrease of 2% compared with 3Q20, as growth in Hong Kong and Asia Other was more than offset by lower COLI product sales in Japan. The impact of COVID-19 in certain markets in Asia has worsened, affecting 3Q21 sales. NBV in 3Q21 was US\$317 million, a 15% increase compared with 3Q20, reflecting growth in Hong Kong and Asia Other, partially offset by a decline in Japan. Year-to-date APE sales were US\$2,521 million in 2021, an increase of 16% compared with the same period of 2020, driven by double-digit growth in both bancassurance and agency channels. Year-to-date NBV was US\$1,018 million in 2021, a 33% increase compared with the same period of 2020, primarily reflecting growth in APE sales, improved product mix and favourable interest rates. New business value margin ("NBV margin")¹ was 46.0% in 3Q21 compared with 38.7% in 3Q20.

- Hong Kong APE sales in 3Q21 were US\$221 million, a 12% increase compared with 3Q20, reflecting strong growth in our bank channel, demand from mainland Chinese visitors through our Macau branch, and an expanded agency force. Sales continued to be dampened by COVID-19 containment measures as cross-border travel between Hong Kong and China remains constrained. Hong Kong NBV was US\$156 million in 3Q21, an increase of 42% compared with 3Q20 due to higher sales volumes, favourable interest rates and product management actions. Hong Kong NBV margin was 70.6% in 3Q21, an increase of 14.6 percentage points compared with 3Q20.
- Japan APE sales in 3Q21 were US\$76 million, a decrease of 50% compared with 3Q20, as a result of lower COLI product sales. Japan NBV in 3Q21 of US\$17 million decreased 47% compared with 3Q20 due to lower sales, partially offset by lower COLI mix. Japan NBV margin was 21.1% in 3Q21, an increase of 1.2 percentage points compared with 3Q20.

¹ This item is a non-GAAP measure. See "Performance and non-GAAP measures" below.

- Asia Other APE sales in 3Q21 were US\$441 million, an 8% increase compared with 3Q20. Higher sales in bancassurance were partially offset by lower agency sales, which were adversely affected by COVID-19 containment measures in markets such as Vietnam and Indonesia. Asia Other NBV in 3Q21 of US\$144 million increased 7% compared with 3Q20, primarily due to higher sales volumes. Asia Other NBV margin was 36.9% in 3Q21, a decrease of 0.6 percentage points compared with 3Q20.

Assets under management¹ were US\$117.6 billion as at September 30, 2021, an increase of US\$8.9 billion or 11% compared with December 31, 2020, due to net customer inflows of US\$10.1 billion.

Revenue was US\$5.3 billion in 3Q21 compared with US\$5.4 billion in 3Q20. Revenue before realized and unrealized investment gains and losses was US\$5.7 billion in 3Q21, an increase of US\$0.9 billion compared with 3Q20, driven by recurring premium growth from in-force business. Year-to-date revenue was US\$17.3 billion in 2021 compared with US\$14.9 billion in the same period of 2020. Year-to-date revenue before realized and unrealized investment gains and losses was US\$16.8 billion in 2021, compared with US\$13.7 billion in the same period of 2020.

Business highlights – In 3Q21, we:

- launched Singapore's first in market flexible digital retirement plan with DBS Bank. The product offers customers multiple flexible options to tailor a plan that best serves their financial and retirement needs,
- continued to expand our footprint in China, as Manulife-Sinochem opened its 15th provincial branch in Shaanxi province,
- entered into a partnership with Centr, a digital health and fitness program that provides ManulifeMOVE customers in Hong Kong, Singapore and Vietnam access to wellness resources during the pandemic, and
- increased our MOVE customers across the region by 31% compared with last year, to 1.5 million.

B2 Canada

(\$ millions, unless otherwise stated)	Quarterly Results			YTD Results	
	3Q21	2Q21	3Q20	2021	2020
Net income (loss) attributed to shareholders ⁽¹⁾	\$ (26)	\$ 783	\$ 291	\$ 738	\$ (433)
Core earnings ⁽¹⁾	311	318	279	893	858
Annualized premium equivalent sales	303	274	289	932	903
Manulife Bank average net lending assets (\$ billions) ⁽²⁾	23.0	22.8	22.7	23.0	22.5
Revenue	2,911	5,932	3,313	6,266	14,632
Revenue before realized and unrealized investment income gains and losses ⁽³⁾	3,847	3,920	3,553	11,317	10,032
Assets under management (\$ billions)	157.8	157.5	157.5	157.8	157.5

⁽¹⁾ See "Performance and non-GAAP measures" below for a reconciliation between net income (loss) attributed to shareholders and core earnings.

⁽²⁾ This item is a non-GAAP measure. See "Performance and non-GAAP measures" below.

⁽³⁾ See section A6 "Impact of fair value accounting".

Canada's 3Q21 net loss attributed to shareholders was \$26 million compared with a net gain attributed to shareholders of \$291 million in 3Q20. Net income attributed to shareholders is comprised of core earnings, which were \$311 million in 3Q21 compared with \$279 million in 3Q20, and items excluded from core earnings, which amounted to a net charge of \$337 million in 3Q21 compared with a net gain of \$12 million in 3Q20 (see a reconciliation of net income (loss) attributed to shareholders to core earnings in "Performance and non-GAAP measures" below).

Core earnings increased \$32 million or 11% compared with 3Q20, primarily reflecting favourable policyholder experience in individual insurance, higher in-force earnings from our retail insurance products, and the non-recurrence of a number of smaller unfavourable experience-related items in 3Q20, partially offset by \$24 million of lower investment income on allocated capital (see Corporate and Other segment).

Year-to-date net income attributed to shareholders was \$738 million in 2021 compared with a year-to-date net loss attributed to shareholders of \$433 million in the same period of 2020 and year-to-date core earnings were \$893

¹ This item is a non-GAAP measure. See "Performance and non-GAAP measures" below.

million in 2021 compared with \$858 million in the same period of 2020. The increase in year-to-date core earnings of \$35 million was driven by higher in-force earnings, improved policyholder experience in individual insurance, an increase in bank earnings and higher retail insurance product sales, partially offset by \$72 million of lower investment income on allocated capital (see Corporate and Other segment) and less favourable policyholder experience in group insurance. Items excluded from year-to-date core earnings were a net charge of \$155 million in 2021 compared with a net charge of \$1,291 million for the same period of 2020 (see a reconciliation of net income (loss) attributed to shareholders to core earnings in “Performance and non-GAAP measures” below).

APE sales of \$303 million in 3Q21 increased by \$14 million or 5% compared with 3Q20, primarily driven by higher individual insurance sales and increased customer demand for our lower risk segregated fund products, partially offset by variability in the large-case group insurance market. Year-to-date APE sales in 2021 were \$932 million, \$29 million or 3% higher than in the same period of 2020, primarily driven by increased customer demand for our lower risk segregated fund products, partially offset by variability in the large-case group insurance market.

- Individual insurance APE sales in 3Q21 of \$116 million increased \$34 million or 41% compared with 3Q20, primarily due to higher par product sales and a large affinity markets sale.
- Group insurance APE sales in 3Q21 of \$100 million decreased \$54 million or 35% compared with 3Q20, primarily due to variability in the large-case group insurance market.
- Annuities APE sales in 3Q21 of \$87 million increased \$34 million or 64% compared with 3Q20, due to increased customer demand for our lower risk segregated funds. We are focused on growth in lower risk segregated fund products, which accounted for 90% of Annuities APE sales in 3Q21.

Manulife Bank average net lending assets¹ for the quarter were \$23.0 billion as at September 30, 2021, up \$0.2 billion or 1% compared with the quarter ended December 31, 2020.

Assets under management were \$157.8 billion as at September 30, 2021, a decrease of \$1.5 billion or 1% compared with December 31, 2020, due to the unfavourable impact of market movements primarily from higher interest rates, partially offset by equity market growth.

Revenue in 3Q21 was \$2.9 billion compared with \$3.3 billion in 3Q20. Revenue before realized and unrealized investment gains and losses was \$3.8 billion in 3Q21, an increase of \$0.3 billion compared with 3Q20, due to growth in premiums and higher investment income. Year-to-date revenue was \$6.3 billion in 2021 compared with \$14.6 billion in the same period of 2020, a decrease of \$8.3 billion compared with the same period of 2020, primarily driven by year-to-date realized and unrealized losses in 2021 compared with gains in the prior year. Year-to-date revenue before realized and unrealized investment gains and losses was \$11.3 billion in 2021, an increase of 13% compared with the same period of 2020, due to higher investment income primarily as a result of the non-recurrence of sharp declines in oil and gas prices in the first quarter of 2020 (“1Q20”), as well as higher premiums and other revenue.

Business highlights – In 3Q21, we:

- launched within group benefits, a digital process of collecting medical evidence required to review and approve short-term absence claims from doctors,
- rolled-out Microsoft's Azure Machine Learning technology, allowing us to leverage large data sets to mine insights, drive business growth, and improve customer experience. This technology represents a meaningful shift to greater cloud capabilities, and
- added new features to our website including live-chat and Health & Dental comparison tools for our prospective Affinity clients to better support them in finding the right plan for their needs.

¹ This item is a non-GAAP measure. See “Performance and non-GAAP measures” below.

B3 U.S.

(\$ millions, unless otherwise stated)

<i>Canadian dollars</i>	Quarterly Results			YTD Results	
	3Q21	2Q21	3Q20	2021	2020
Net income attributed to shareholders ⁽¹⁾	\$ 697	\$ 793	\$ 891	\$ 1,586	\$ 1,163
Core earnings ⁽¹⁾	490	478	498	1,469	1,516
Annualized premium equivalent sales	203	191	136	544	431
Revenue	4,650	8,882	1,398	7,540	19,665
Revenue before realized and unrealized investment income gains and losses ⁽²⁾	4,175	3,915	883	11,623	8,518
Assets under management (\$ billions)	240.9	233.7	244.6	240.9	244.6
<i>U.S. dollars</i>					
Net income attributed to shareholders ⁽¹⁾	US\$ 553	US\$ 646	US\$ 669	US\$ 1,275	US\$ 906
Core earnings ⁽¹⁾	389	389	374	1,174	1,118
Annualized premium equivalent sales	161	155	102	435	318
Revenue	3,689	7,232	1,050	6,188	14,467
Revenue before realized and unrealized investment income gains and losses ⁽²⁾	3,312	3,185	664	9,288	6,262
Assets under management (\$ billions)	189.1	188.5	183.4	189.1	183.4

⁽¹⁾ See "Performance and non-GAAP measures" below for a reconciliation between net income (loss) attributed to shareholders and core earnings.

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

U.S. 3Q21 net income attributed to shareholders was \$697 million compared with \$891 million in 3Q20. Net income attributed to shareholders is comprised of core earnings, which amounted to \$490 million in 3Q21 compared with \$498 million in 3Q20, and items excluded from core earnings, which amounted to a net gain of \$207 million in 3Q21 compared with a net gain of \$393 million in 3Q20. 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 \$28 million unfavourable impact from the weakening of the U.S. dollar compared with the Canadian dollar.

Expressed in U.S. dollars, the functional currency of the segment, 3Q21 net income attributed to shareholders was US\$553 million compared with US\$669 million in 3Q20, core earnings were US\$389 million in 3Q21 compared with US\$374 million in 3Q20, and items excluded from core earnings were a net gain of US\$164 million in 3Q21 compared with a net gain of US\$295 million in 3Q20 (see a reconciliation of net income (loss) attributed to shareholders to core earnings in "Performance and non-GAAP measures" below).

Core earnings increased US\$15 million or 4% compared with 3Q20, primarily driven by higher new business gains and favourable tax benefits, including a true-up of prior year tax accruals, partially offset by US\$30 million lower investment income on allocated capital (see Corporate and Other segment) and less favourable long-term care policyholder experience.

Year-to-date net income attributed to shareholders was US\$1,275 million in 2021 compared with US\$906 million in the same period of 2020 and year-to-date core earnings were US\$1,174 million in 2021 compared with US\$1,118 million in the same period of 2020. Year-to-date core earnings increased US\$56 million due to higher new business gains, favourable tax benefits as noted above, and higher in-force earnings. These items were partially offset by a US\$89 million decrease in investment income on allocated capital (see Corporate and Other Segment) and unfavourable policyholder experience. Compared with 2020, unfavourable life insurance policyholder experience, which included COVID-19 related claims in both periods, was partially offset by favourable long-term care policyholder experience primarily due to the impact of COVID-19, and favourable annuities policyholder experience. Items excluded from year-to-date core earnings were a net gain of US\$101 million in 2021 compared with a net charge of US\$212 million for the same period of 2020 (see a reconciliation of net income (loss) attributed to shareholders to core earnings in "Performance and non-GAAP measures" below). Expressed in Canadian dollars, year-to-date core earnings reflected a \$120 million unfavourable impact of changes in foreign currency exchange rates versus the Canadian dollar.

APE sales in 3Q21 of US\$161 million increased 58% compared with 3Q20, due to higher customer demand for international, domestic indexed universal life and variable universal life product offerings. APE sales of products

with the John Hancock Vitality PLUS feature in 3Q21 increased 84% compared with 3Q20. This feature continues to be a differentiator in the market, particularly in the current environment of greater consumer interest in improving baseline health. Year-to-date APE sales in 2021 of US\$435 million increased 37% compared with the same period of 2020 due to similar factors. The year-to-date increase continues to reflect the impact of COVID-19 which has increased demand for protection products.

Assets under management as at September 30, 2021 were US\$189.1 billion, an increase of 1% compared with December 31, 2020. The net favourable impact from markets was partially offset by the continued run-off of the annuity business.

Revenue in 3Q21 was US\$3.7 billion compared with US\$1.1 billion in 3Q20. Revenue before net realized and unrealized investment gains and losses was US\$3.3 billion in 3Q21 compared with US\$0.7 billion in 3Q20. The US\$2.6 billion increase was driven by the non-recurrence of the reinsurance of a block of our legacy U.S. BOLI business in 3Q20. Year-to-date revenue was US\$6.2 billion in 2021, a decrease compared with US\$14.5 billion in the same period of 2020. The US\$8.3 billion decrease was driven by year-to-date mark-to-market losses in 2021 compared with gains in 2020, partially offset by the non-recurrence of reinsurance impacts noted above. Year-to-date revenue before realized and unrealized investment gains and losses was US\$9.3 billion in 2021 compared with US\$6.3 billion in the same period of 2020. The US\$3.0 billion increase was driven by the reinsurance impact noted above.

Business highlights – In 3Q21, we:

- experienced sales momentum, which was supported by a 2-placement increase in market ranking to seventh in brokerage¹, as well as the highest quarterly sales of international products in the 17-year history of our high-net-worth business, and
- rolled-out Microsoft's Azure Machine Learning technology, allowing us to leverage large data sets to mine insights, drive business growth, and improve customer experience. This technology represents a meaningful shift to greater cloud capabilities.

B4 Global Wealth and Asset Management

(\$ millions, unless otherwise stated)	Quarterly Results			YTD Results	
	3Q21	2Q21	3Q20	2021	2020
Net income attributed to shareholders ⁽¹⁾	\$ 351	\$ 356	\$ 308	\$ 1,019	\$ 796
Core earnings ⁽¹⁾	351	356	308	1,019	796
Core EBITDA ⁽²⁾	529	521	446	1,519	1,217
Core EBITDA margin(%) ⁽²⁾	31.5%	32.4%	30.4%	31.6%	28.6%
Sales					
Wealth and asset management gross flows	35,229	33,739	27,475	108,677	98,718
Wealth and asset management net flows	9,824	8,628	(2,219)	19,809	6,088
Revenue	1,680	1,607	1,465	4,814	4,252
Assets under management and administration (\$ billions)	823.6	798.5	715.4	823.6	715.4
Average assets under management and administration (\$ billions) ⁽³⁾	815.9	775.8	707.9	786.0	686.4

⁽¹⁾ See "Performance and non-GAAP measures" below for a reconciliation between net income (loss) attributed to shareholders and core earnings.

⁽²⁾ Core EBITDA and core EBITDA margin are non-GAAP measures. Core EBITDA is core earnings before interest, taxes, depreciation and amortization and core EBITDA margin is core EBITDA divided by total revenue. See "Performance and non-GAAP measures" below.

⁽³⁾ Average assets under management and administration ("Average AUMA") is a non-GAAP measure reflecting the average of Global WAM's AUMA during the reporting period. See "Performance and non-GAAP measures" below.

Global Wealth and Asset Management's net income attributed to shareholders was \$351 million in 3Q21 compared with \$308 million in 3Q20. Net income attributed to shareholders is comprised of core earnings, which were \$351 million in 3Q21 compared with \$308 million in 3Q20 and items excluded from core earnings, which

¹ LIMRA second quarter 2021 industry survey. Ranking reflects variable, universal and total Life products based on 100% of recurring premium plus 10% of single premium plus 10% of excess premium.

were nil in both 3Q21 and 3Q20 (see a reconciliation of net income (loss) attributed to shareholders to core earnings in “Performance and non-GAAP measures” below).

Core earnings in 3Q21 increased 18% compared with 3Q20 reflecting growth in net fee income driven by higher average AUMA, from the favourable impact of markets and net inflows, and favourable business mix. This increase was partially offset by higher general expenses, mainly from growth in business volumes and other variable expenses, as well as lower tax benefits.

Core EBITDA¹ was \$529 million in 3Q21, an increase of 23% compared with 3Q20, driven by higher net fee income partially offset by higher general expenses as mentioned above. Core EBITDA margin¹ was 31.5% in 3Q21, an increase of 110 basis points compared with 3Q20, driven by a combination of higher net fee income, operational benefits from increased scale and disciplined expense management.

Year-to-date net income attributed to shareholders was \$1,019 million in 2021 compared with \$796 million in the same period of 2020 and year-to-date core earnings were \$1,019 million in 2021 compared with \$796 million in the same period of 2020. The increase in year-to-date core earnings of \$223 million or 35% reflected growth in net fee income driven by higher AUMA, from the favourable impact of markets and net inflows, partially offset by higher general expenses, mainly from growth in business volumes and other variable expenses. Items excluded from year-to-date core earnings were nil in both 2021 and 2020 (see a reconciliation of net income (loss) attributed to shareholders to core earnings in “Performance and non-GAAP measures” below).

Year-to-date core EBITDA was \$1,519 million in 2021 compared with \$1,217 million in the same period of 2020. The increase in year-to-date core EBITDA of \$302 million or 31% was driven by the factors noted above. Year-to-date core EBITDA margin was 31.6% in 2021 compared with 28.6% in the same period of 2020. The increase of 300 basis points was driven by the factors as noted above.

Wealth and asset management gross flows were \$35.2 billion in 3Q21, an increase of 33% compared with 3Q20. By business line, the results were:

- Retirement gross flows in 3Q21 were \$12.5 billion, an increase of 14% compared with 3Q20, driven by growth in member contributions and new plan sales.
- Retail gross flows in 3Q21 were \$19.4 billion, an increase of 56% compared with 3Q20, reflecting double-digit growth in gross flows across all geographies amid increased investor demand. In the U.S., the increase was driven by strong intermediary sales and higher institutional model allocations. In Asia, the increase was driven by higher gross flows in Japan, China, and Indonesia. In Canada, the increase was driven by higher gross flows across the product line-up.
- Institutional Asset Management gross flows in 3Q21 were \$3.3 billion, an increase of 6% compared with 3Q20, driven by higher sales of timberland mandates in the U.S., partially offset by lower gross flows from fixed income products in China.

Year-to-date gross flows were \$108.7 billion in 2021, an increase of 16% compared with the same period of 2020, driven by higher retail gross flows across all geographies, partially offset by the non-recurrence of a \$6.9 billion sale in Institutional Asset Management in 2020.

Wealth and asset management net inflows were \$9.8 billion in 3Q21, compared with net outflows of \$2.2 billion in 3Q20. By business line, the results were:

- Retirement net inflows were \$0.6 billion in 3Q21 compared with net inflows of \$1.0 billion in 3Q20, reflecting higher plan redemptions, partially offset by growth in member contributions and new plan sales.
- Retail net inflows were \$7.9 billion in 3Q21 compared with net inflows of \$0.7 billion in 3Q20, driven by double-digit growth in gross flows across all geographies amid increased investor demand as noted above and lower mutual fund redemption rates.
- Institutional Asset Management net inflows were \$1.3 billion in 3Q21 compared with net outflows of \$3.9 billion in 3Q20, driven by the non-recurrence of a \$5.0 billion redemption in Europe in 3Q20, and higher sales of timberland mandates in the U.S., partially offset by lower gross flows of fixed income products in China.

¹ This item is a non-GAAP measure. See “Performance and non-GAAP measures” below.

Year-to-date net inflows were \$19.8 billion in 2021, compared with \$6.1 billion for the same period of 2020. The increase was primarily driven by Retail, from higher net inflows across all geographies, and the non-recurrence of the \$5.0 billion institutional redemption in 2020. This increase was partially offset by a \$9.4 billion institutional redemption in Asia and the non-recurrence of a \$6.9 billion institutional sale in Canada in 2020.

Assets under management and administration of \$823.6 billion as at September 30, 2021 increased 10% compared with December 31, 2020. The increase in AUMA was driven by the favourable impact of markets and year-to-date net inflows of \$19.8 billion. Global WAM also managed \$240.8 billion in assets for the Company's other segments as at September 30, 2021. Including those managed assets, AUMA managed by Global WAM was \$1,064.4 billion as at September 30, 2021 compared with \$984.4¹ billion as at December 31, 2020.

Revenue in 3Q21 was \$1.7 billion, an increase of 19% compared with 3Q20, driven by growth in fee income from higher average AUMA. Year-to-date revenue in 2021 was \$4.8 billion, an increase of 19% compared with the same period of 2020 driven by the factors noted above.

Business highlights – In 3Q21, we:

- were accepted as a signatory to the UK Stewardship Code, which is regarded as one of the most comprehensive set of sustainable investment standards in the industry. This result is a testament to the strength of our investment approach and our ability to pursue sustainable investment solutions for our clients, and
- continued to show strong momentum in Manulife iFunds, our Asia online investment platform, aided by Malaysia, where sales and digital applications have increased significantly year over year.

B5 Corporate and Other

(\$ millions, unless otherwise stated)	Quarterly Results			YTD Results	
	3Q21	2Q21	3Q20	2021	2020
Net income (loss) attributed to shareholders ⁽¹⁾	\$ (252)	\$ 81	\$ (73)	\$ (734)	\$ 1,442
Core loss excluding core investment gains ⁽¹⁾	\$ (268)	\$ (96)	\$ (191)	\$ (482)	\$ (667)
Core investment gains	100	100	-	300	-
Total core gain (loss)	\$ (168)	\$ 4	\$ (191)	\$ (182)	\$ (667)
Revenue	\$ 84	\$ 281	\$ 39	\$ (30)	\$ 2,341

⁽¹⁾ See "Performance and non-GAAP measures" for a reconciliation between net income (loss) attributed to shareholders and core earnings.

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 run-off reinsurance operations 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 "Performance and non-GAAP 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 net loss attributed to shareholders of \$252 million in 3Q21 compared with a net loss attributed to shareholders of \$73 million in 3Q20. The core loss was \$168 million in 3Q21 compared with a core loss of \$191 million in 3Q20 and the items excluded from core earnings amounted to a net charge of \$84 million in 3Q21 compared with a net gain of \$118 million in 3Q20 (see a reconciliation of net income (loss) attributed to shareholders to core earnings in "Performance and non-GAAP measures" below).

The \$23 million decrease in core loss was primarily related to the recognition of \$100 million of core investment gains compared with nil core investment gains in 3Q20, lower interest on external debt, gains on sales of AFS

¹ Effective January 1, 2021, Manulife's AUMA managed by Global WAM includes certain private equity, private credit and infrastructure asset classes. Total AUMA managed by Global WAM as at December 31, 2020 has been restated for comparability.

equities and \$75 million of lower interest on allocated capital to operating segments in 3Q21. These gains were largely offset by a \$152 million charge in our P&C Reinsurance business for estimated losses relating to Hurricane Ida and European floods and the unfavourable impact of markets on seed money investments in new segregated funds and mutual funds in 3Q21 compared with gains in the prior year.

The charge of \$84 million in items excluded from core loss in 3Q21 was mostly due to 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 \$734 million in 2021 compared with a net gain attributed to shareholders of \$1,442 million in the same period of 2020. The year-to-date core loss was \$182 million in 2021 compared with \$667 million in the same period of 2020. The favourable variance in the year-to-date core loss of \$485 million was primarily attributable to \$300 million of core investment gains in the first nine months of 2021 compared with nil in the same period of 2020, lower interest on allocated capital to operating segments of \$235 million in the first nine months of 2021, and net gains from AFS equities and seed money investments in the first nine months of 2021 compared with net losses in the prior year. These gains were partially offset by the P&C Reinsurance provisions and lower yields on fixed income investments. Items excluded from the year-to-date core loss were a net loss of \$552 million in 2021 compared with a net gain of \$2,109 million in the same period of 2020. The unfavourable variance was largely driven by gains on the sale of AFS bonds in 2020 compared with losses in 2021 (see reconciliation of net income (loss) attributed to shareholders to core earnings in "Performance and non-GAAP measures" below).

Revenue in 3Q21 was \$84 million compared with \$39 million in 3Q20. The \$45 million increase was primarily driven by lower interest on allocated capital and gains from AFS equities in 2021 compared with 2020. These amounts were partially offset by realized losses on the sale of AFS bonds in 3Q21 compared with gains in the same period of 2020 and the unfavourable impact of markets on seed money investments in new segregated funds and mutual funds in 3Q21 compared with gains in the prior year.

Year-to-date revenue was a loss of \$30 million in 2021 compared with a gain of \$2,341 million in the same period of 2020. The unfavourable variance was largely due to realized losses on AFS bonds and losses on derivative positions in 2021 compared with gains in the same period of 2020, and lower yield on fixed income investments, partially offset by gains from AFS equities and seed money investments compared with losses in the prior year and lower interest on allocated capital.

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 2020 Annual Report ("2020 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 2020 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 2021 to 2041.

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, 2021 ⁽¹⁾			December 31, 2020 ⁽¹⁾		
	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	\$ 4,480	\$ 3,588	\$ 992	\$ 4,555	\$ 3,642	\$ 1,064
Guaranteed minimum withdrawal benefit	39,585	41,703	2,475	42,570	44,075	3,128
Guaranteed minimum accumulation benefit	19,474	19,904	27	18,463	18,945	8
Gross living benefits ⁽⁴⁾	63,539	65,195	3,494	65,588	66,662	4,200
Gross death benefits ⁽⁵⁾	11,147	21,486	704	10,652	19,548	710
Total gross of reinsurance	74,686	86,681	4,198	76,240	86,210	4,910
Living benefits reinsured	3,838	3,088	833	3,917	3,157	895
Death benefits reinsured	658	557	263	685	534	282
Total reinsured	4,496	3,645	1,096	4,602	3,691	1,177
Total, net of reinsurance	\$ 70,190	\$ 83,036	\$ 3,102	\$ 71,638	\$ 82,519	\$ 3,733

⁽¹⁾ Guaranteed Value and Net Amount at Risk in respect of guaranteed minimum withdrawal business in Canada and the U.S. have been updated in 2021 to reflect the time value of money of these claims. This methodology change also had a minor impact on the allocation of fund values between living benefits and death benefits. See footnotes 4 and 5. Values at December 31, 2020 have been restated to reflect this revised methodology.

⁽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, 2021 was \$3,102 million (December 31, 2020 – \$3,733 million) of which: US\$1,509 million (December 31, 2020 – US\$1,839 million) was on our U.S. business, \$979 million (December 31, 2020 – \$1,159 million) was on our Canadian business, US\$62 million (December 31, 2020 – US\$71 million) was on our Japan business and US\$95 million (December 31, 2020 – US\$111 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.

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 total 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 2020 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 55 and 56 of our 2020 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, 2021

(\$ millions)	-30%	-20%	-10%	+10%	+20%	+30%
Underlying sensitivity to net income attributed to shareholders⁽⁴⁾						
Variable annuity guarantees	\$ (2,730)	\$ (1,600)	\$ (700)	\$ 510	\$ 880	\$ 1,130
General fund equity investments ⁽⁵⁾	(1,440)	(880)	(430)	430	850	1,280
Total underlying sensitivity before hedging	(4,170)	(2,480)	(1,130)	940	1,730	2,410
Impact of macro and dynamic hedge assets ⁽⁶⁾	2,280	1,340	590	(510)	(900)	(1,200)
Net potential impact on net income attributed to shareholders after impact of hedging	\$ (1,890)	\$ (1,140)	\$ (540)	\$ 430	\$ 830	\$ 1,210

As at December 31, 2020

(\$ millions)	-30%	-20%	-10%	+10%	+20%	+30%
Underlying sensitivity to net income attributed to shareholders⁽⁴⁾						
Variable annuity guarantees	\$ (3,150)	\$ (1,850)	\$ (800)	\$ 600	\$ 1,040	\$ 1,350
General fund equity investments ⁽⁵⁾	(1,350)	(840)	(410)	380	760	1,130
Total underlying sensitivity before hedging	(4,500)	(2,690)	(1,210)	980	1,800	2,480
Impact of macro and dynamic hedge assets ⁽⁶⁾	2,420	1,410	600	(620)	(1,110)	(1,480)
Net potential impact on net income attributed to shareholders after impact of hedging	\$ (2,080)	\$ (1,280)	\$ (610)	\$ 360	\$ 690	\$ 1,000

⁽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).

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, 2021	(2)	(1)	-	-	1	1
December 31, 2020	(3)	(1)	(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, 2021, 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 a charge of \$100 million.

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, 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 assumptions (“URR”) or calibration criteria for stochastic risk-free rates. 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. We adopted this standard in 3Q21, which reduced net income attributed to shareholders by \$532 million (post-tax). The current 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 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 91 of our 2020 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 total ratios and vice-versa.

The following table shows the potential impact on net income attributed to shareholders including 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 total 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, 2021		December 31, 2020	
	-50bp	+50bp	-50bp	+50bp
Net income attributed to shareholders (\$ millions)				
Excluding change in market value of AFS fixed income assets held in the Corporate and Other segment	\$ nil	\$ (100)	\$ nil	\$ (100)
From fair value changes in AFS fixed income assets held in the Corporate and Other segment, if realized	1,900	(1,700)	2,100	(1,900)
MLI's LICAT total ratio (Percentage points)				
LICAT total ratio change in percentage points ⁽⁵⁾	4	(4)	8	(7)

⁽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 total 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, 2021		December 31, 2020	
	-50bp	+50bp	-50bp	+50bp
As at				
Net income attributed to shareholders (\$ millions) ⁽⁶⁾	\$ (500)	\$ 500	\$ (1,000)	\$ 900
MLI's LICAT total ratio (change in percentage points) ⁽⁷⁾	(3)	4	(4)	4

Swap spreads	September 30, 2021		December 31, 2020	
	-20bp	+20bp	-20bp	+20bp
As at				
Net income attributed to shareholders (\$ millions)	\$ nil	\$ nil	\$ nil	\$ nil
MLI's LICAT total 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, 2021 compared with December 31, 2020, 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 capital 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.

We estimate the potential impact of a switch in the scenarios would be approximately a one-time seven percentage point decrease in MLI's LICAT total 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.

Potential impact on net income attributed to shareholders and MLI LICAT arising from changes in ALDA returns^{(1),(2),(3),(4),(5),(6)}

As at (\$ millions)	September 30, 2021		December 31, 2020	
	-10%	+10%	-10%	+10%
Net income attributed to shareholders				
Real estate, agriculture and timber assets	\$ (1,400)	\$ 1,300	\$ (1,600)	\$ 1,400
Private equities and other ALDA	(1,900)	1,800	(2,000)	1,900
Total	\$ (3,300)	\$ 3,100	\$ (3,600)	\$ 3,300
MLI's LICAT total ratio (change in percentage points)	(4)	3	(5)	4

⁽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.

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

⁽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.

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, 2021 was \$4,103 million compared with \$4,387 million as at December 31, 2020. This provision represents 1.5% of our fixed income assets¹ supporting policy liabilities reported on our Consolidated Statements of Financial Position as at September 30, 2021.

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 \$80 million, respectively, as at September 30, 2021 and December 31, 2020.

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 \$300 million post-tax. This ratings downgrade would result in a one percentage point reduction to our LICAT ratio.

Approximately 56% of the impact on our policy liabilities and net income attributed to shareholders relates to fixed income assets rated BBB and below.

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, 2021	December 31, 2020
Net impaired fixed income assets	\$ 221	\$ 296
Net impaired fixed income assets as a % of total invested assets	0.053%	0.072%
Allowance for loan losses	\$ 53	\$ 107

C7 Risk factors – strategic risk from changes in tax laws

In our 2020 MD&A, 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.

On October 8, 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

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+.

economy, and to close the gaps in international tax systems. The two pillars include a new approach to allocating certain profits of multinational entities amongst countries and a global minimum income tax rate of 15%. The detailed technical rules are scheduled to be released later this year and are expected to be effective in 2023, pending enactment of domestic tax laws and amendment of bilateral tax treaties in 2022. The Company is closely monitoring developments and potential impacts, in particular issues unique to the insurance industry.

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, 2020. 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 as described on pages 84 to 93 of our 2020 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.

This year's review of actuarial methods and assumptions did not reflect COVID-19 experience as it is too soon to assess the impact of COVID-19 on long-term assumptions. Experience related to COVID-19 will continue to be closely monitored, as well as emerging research on the long-term implications of COVID-19 on mortality and other assumptions.

The completion of the 2021 annual review of actuarial methods and assumptions resulted in an increase in insurance contract liabilities of \$287 million, net of reinsurance, and a decrease in net income attributed to shareholders of \$41 million post-tax.

For the three and nine months ended September 30, 2021 (\$ 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	
U.S. variable annuity product review	\$ 51	\$ -	\$ 51	\$ (40)
Mortality and morbidity updates	350	-	350	(257)
Lapses and policyholder behaviour updates	686	18	668	(534)
Expense updates	(653)	(25)	(628)	503
Investment-related updates	(257)	(2)	(255)	168
Other updates	110	231	(121)	119
Net impact	\$ 287	\$ 222	\$ 65	\$ (41)

⁽¹⁾ The change in insurance contract liabilities, net of reinsurance, attributable to the participating policyholders' account was primarily driven by a reduction in the expected long-term interest rates within the valuation models to reflect the low interest rate environment.

U.S. variable annuity product review

The review of our variable annuity products in the U.S. resulted in a \$40 million post-tax charge to net income attributed to shareholders.

The charge was primarily driven by updates to lapse assumptions to reflect emerging experience, partially offset by refinements to our segregated fund guaranteed minimum withdrawal benefit valuation models.

Updates to mortality and morbidity

Mortality and morbidity updates resulted in a \$257 million post-tax charge to net income attributed to shareholders.

The charge was driven by updates to older age mortality on certain products in our U.S. life insurance business, mortality assumption updates in Indonesia to reflect recent experience, as well as from refining assumptions on several reinsurance arrangements in Canada.

Updates to lapses and policyholder behaviour

Updates to lapses and policyholder behaviour assumptions resulted in a \$534 million post-tax charge to net income attributed to shareholders.

We completed a detailed review of lapse assumptions for non-participating policies within our U.S. life insurance business including those for universal life, variable universal life, and term products. We observed a trend of low lapse rates on our protection-focused universal life insurance products as consumers continue to value the product guarantees in the prolonged low interest rate environment. We lowered the overall lapse assumptions for these products to reflect actual experience, which resulted in a post-tax charge to net income attributed to shareholders.

Other updates to lapse and policyholder behaviour assumptions were made across several products in Canada and Japan to reflect recent experience, resulting in a modest post-tax charge to net income attributed to shareholders.

Expense updates

Updates to expense assumptions resulted in a \$503 million post-tax gain to net income attributed to shareholders.

We completed a detailed review of our investment expense assumptions across the Company. This resulted in a \$263 million post-tax gain to net income attributed to shareholders, primarily driven by scale benefits.

We also completed a global expense study, which resulted in a \$256 million post-tax gain to net income attributed to shareholders. The favourable result primarily reflects a reallocation of expenses across certain business lines to align with actual experience, as well as from expense savings related to various expense efficiency initiatives.

Investment-related updates

Updates to investment return assumptions resulted in a \$168 million post-tax gain to net income attributed to shareholders.

The primary driver of the gain was an update to our corporate bond default rates to reflect recent experience; we reduced default assumptions for certain credit ratings in Canada, the U.S., and Japan. This was partially offset by a reduction to our Canadian real estate investment return assumptions.

Other updates

Other updates resulted in a \$119 million post-tax gain to net income attributed to shareholders.

This was primarily driven by Japan, whereby investment fees for certain mandates in the general account provided by affiliate investment managers were reviewed and updated to align with broader market levels.

Impact of changes in actuarial methods and assumptions by segment

The impact of changes in actuarial methods and assumptions in Canada resulted in a \$65 million post-tax charge to net income attributed to shareholders. The charge was primarily driven by a reduction to our real estate investment return assumptions, as well as from refining assumptions on several reinsurance arrangements in individual insurance, largely offset by positive updates related to our company-wide expense review and corporate bond default study.

The impact of changes in actuarial methods and assumptions in the U.S. resulted in a \$314 million post-tax charge to net income attributed to shareholders. The charge was primarily driven by updates to lapse and mortality

assumptions in our U.S. life insurance business to reflect emerging experience, partially offset by positive updates related to our company-wide expense review and corporate bond default study.

The impact of changes in actuarial methods and assumptions in Asia resulted in a \$343 million post-tax gain to net income attributed to shareholders. The gain was primarily driven by Japan, whereby investment fees for certain mandates in the general account provided by affiliate investment managers were reviewed and updated to align with broader market levels, as well as from the positive updates related to our corporate bond default study. This was partially offset by updates to the mortality assumptions in Indonesia to reflect recent experience.

The impact of changes in actuarial methods and assumptions in Corporate and Other (which includes our Reinsurance business) resulted in a \$5 million post-tax charge 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, 2021		December 31, 2020	
	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⁾	\$ 500	\$ (500)	\$ 500	\$ (500)
100 basis point change in future annual returns for ALDA ⁽²⁾	3,700	(4,500)	4,200	(5,200)
100 basis point change in equity volatility assumption for stochastic segregated fund modelling ⁽³⁾	(200)	200	(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, 2021 and December 31, 2020, unless otherwise noted, the growth rates inclusive of dividends in the major markets used in the stochastic valuation models for valuing segregated fund guarantees are 9.0% (9.2% as at December 31, 2020) 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, 2021 and December 31, 2020, unless otherwise noted, over a 20-year horizon, our best estimate return assumptions range between 5.25% and 11.5% (5.25% and 11.65% as at December 31, 2020), with an average of 9.2% (9.3% as at December 31, 2020) based on the current asset mix backing our guaranteed insurance and annuity. As of September 30, 2021 and December 31, 2020, unless otherwise noted, 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% (6.1% as at December 31, 2020) 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, 2021 and December 31, 2020, unless otherwise noted, 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, 2021.

E OTHER

E1 Outstanding common shares - selected information

As at October 31, 2021 MFC had 1,942,473,867 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, 2021.

E3 Performance and non-GAAP measures

We use a number of non-GAAP financial measures to measure overall performance and to assess each of our businesses. A financial measure is considered a non-GAAP measure for Canadian securities law purposes if it is presented other than in accordance with generally accepted accounting principles used for the Company's audited financial statements. Non-GAAP measures include: core earnings (loss); core return on common shareholders' equity ("core ROE"); diluted core earnings per common share ("core EPS"); pre-tax core earnings; core earnings before income taxes, depreciation and amortization ("core EBITDA"); core EBITDA margin; core investment gains; core general expenses; constant exchange rate basis (measures that are reported on a constant exchange rate basis include percentage growth/decline in core earnings, core general expenses, pre-tax core earnings, sales, annualized premium equivalent ("APE") sales, gross flows, core EBITDA, new business value ("NBV"), assets under management, assets under management and administration ("AUMA"), and Global WAM revenue); assets under administration; expense efficiency ratio; assets under management and administration; assets under management; average AUMA, consolidated capital; embedded value; new business value; new business value margin ("NBV margin"); net fee income yield on assets under management and administration; net annualized fee income; sales; APE sales; gross flows; net flows; and Manulife Bank average net lending assets. Non-GAAP financial measures are not defined terms under GAAP and, therefore, are unlikely to be comparable to similar terms used 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 non-GAAP 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.

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 "Quarterly Financial Information" below for reconciliation of core earnings to net income (loss) attributed to shareholders.

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 calculated from the introduction of core earnings in 2012 to the end of 2020 was \$380 million, a decrease from the average of \$527 million (2012-2019) due to losses on investment-related experience (compared with average gains in prior years, including the core investment gains).
 - 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 2020 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. Impact of enacted or substantially enacted income tax rate changes.

The following table summarizes for the past eight quarters core earnings and net income (loss) attributed to shareholders.

Total Company

(\$ millions, unaudited)	Quarterly Results							
	3Q21	2Q21	1Q21	4Q20	3Q20	2Q20	1Q20	4Q19
Core earnings (loss)								
Asia	\$ 533	\$ 526	\$ 570	\$ 571	\$ 559	\$ 489	\$ 491	\$ 494
Canada	311	318	264	316	279	342	237	288
U.S.	490	478	501	479	498	602	416	489
Global Wealth and Asset Management	351	356	312	304	308	238	250	265
Corporate and Other (excluding core investment gains)	(268)	(96)	(118)	(196)	(191)	(110)	(366)	(159)
Core investment gains	100	100	100	-	-	-	-	100
Total core earnings	1,517	1,682	1,629	1,474	1,453	1,561	1,028	1,477
Items to reconcile core earnings (loss) to net income (loss) attributed to shareholders:								
Investment-related experience outside of core earnings	700	739	77	585	147	(916)	(608)	182
Direct impact of equity markets and interest rates and variable annuity guarantee liabilities	(597)	217	(835)	(323)	390	73	792	(389)
Change in actuarial methods and assumptions	(41)	-	-	-	(198)	-	-	-
Reinsurance transactions	13	8	8	44	276	9	12	(34)
Restructuring charge	-	-	(115)	-	-	-	-	-
Tax-related items and other	-	-	19	-	-	-	72	(8)
Net income (loss) attributed to shareholders	\$ 1,592	\$ 2,646	\$ 783	\$ 1,780	\$ 2,068	\$ 727	\$ 1,296	\$ 1,228

Asia

(\$ millions, unaudited)	Quarterly Results							
	3Q21	2Q21	1Q21	4Q20	3Q20	2Q20	1Q20	4Q19
Asia core earnings	\$ 533	\$ 526	\$ 570	\$ 571	\$ 559	\$ 489	\$ 491	\$ 494
Items to reconcile core earnings to net income (loss) attributed to shareholders:								
Investment-related experience outside of core earnings	62	121	72	127	81	(40)	50	46
Direct impact of equity markets and interest rates and variable annuity guarantee liabilities	(129)	(22)	288	(88)	44	(81)	(458)	96
Change in actuarial methods and assumptions	343	-	-	-	(41)	-	-	-
Reinsurance transactions	13	8	8	29	8	9	12	-
Tax-related items and other	-	-	19	-	-	-	-	-
Net income (loss) attributed to shareholders	\$ 822	\$ 633	\$ 957	\$ 639	\$ 651	\$ 377	\$ 95	\$ 636

Canada

(\$ millions, unaudited)	Quarterly Results							
	3Q21	2Q21	1Q21	4Q20	3Q20	2Q20	1Q20	4Q19
Canada core earnings	\$ 311	\$ 318	\$ 264	\$ 316	\$ 279	\$ 342	\$ 237	\$ 288
Items to reconcile core earnings to net income (loss) attributed to shareholders:								
Investment-related experience outside of core earnings	97	207	(65)	332	(28)	(186)	(378)	69
Direct impact of equity markets and interest rates and variable annuity guarantee liabilities	(369)	258	(218)	(35)	(43)	(14)	(725)	(97)
Change in actuarial methods and assumptions	(65)	-	-	-	77	-	-	-
Reinsurance transactions	-	-	-	15	6	-	-	(34)
Tax-related items and other	-	-	-	-	-	-	-	-
Net income (loss) attributed to shareholders	\$ (26)	\$ 783	\$ (19)	\$ 628	\$ 291	\$ 142	\$ (866)	\$ 226

U.S.

(\$ millions, unaudited)	Quarterly Results							
	3Q21	2Q21	1Q21	4Q20	3Q20	2Q20	1Q20	4Q19
U.S. core earnings	\$ 490	\$ 478	\$ 501	\$ 479	\$ 498	\$ 602	\$ 416	\$ 489
Items to reconcile core earnings to net income (loss) attributed to shareholders:								
Investment-related experience outside of core earnings	617	506	160	110	121	(682)	(266)	177
Direct impact of equity markets and interest rates and variable annuity guarantee liabilities	(96)	(191)	(565)	(483)	311	(1,500)	1,702	(515)
Change in actuarial methods and assumptions	(314)	-	-	-	(301)	-	-	-
Reinsurance transactions	-	-	-	-	262	-	-	-
Tax-related items and other	-	-	-	-	-	-	-	(8)
Net income (loss) attributed to shareholders	\$ 697	\$ 793	\$ 96	\$ 106	\$ 891	\$(1,580)	\$1,852	\$ 143

Global Wealth and Asset Management

(\$ millions, unaudited)	Quarterly Results							
	3Q21	2Q21	1Q21	4Q20	3Q20	2Q20	1Q20	4Q19
Global WAM core earnings	\$ 351	\$ 356	\$ 312	\$ 304	\$ 308	\$ 238	\$ 250	\$ 265
Items to reconcile core earnings to net income (loss) attributed to shareholders:								
Tax-related items and other	-	-	-	-	-	-	-	-
Net income (loss) attributed to shareholders	\$ 351	\$ 356	\$ 312	\$ 304	\$ 308	\$ 238	\$ 250	\$ 265

Corporate and Other

(\$ millions, unaudited)	Quarterly Results							
	3Q21	2Q21	1Q21	4Q20	3Q20	2Q20	1Q20	4Q19
Corporate and Other core income (loss) (excluding core investment gains)⁽¹⁾	\$ (268)	\$ (96)	\$ (118)	\$ (196)	\$ (191)	\$ (110)	\$ (366)	\$ (159)
Core investment gains (loss)	100	100	100	-	-	-	-	100
Total core earnings (loss)	(168)	4	(18)	(196)	(191)	(110)	(366)	(59)
Other items to reconcile core earnings (loss) to net income (loss) attributed to shareholders:								
Investment-related experience outside of core earnings	(76)	(95)	(90)	16	(27)	(8)	(14)	(110)
Direct impact of equity markets and interest rates	(3)	172	(340)	283	78	1,668	273	127
Changes in actuarial methods and assumptions	(5)	-	-	-	67	-	-	-
Tax-related items and other	-	-	-	-	-	-	72	-
Restructuring charge	-	-	(115)	-	-	-	-	-
Net income (loss) attributed to shareholders	\$ (252)	\$ 81	\$(563)	\$ 103	\$ (73)	\$1,550	\$ (35)	\$ (42)

⁽¹⁾ The Corporate and Other segment includes earnings on assets backing capital net of amounts allocated to operating segments.

Core return on common shareholders' equity ("core ROE") is a non-GAAP profitability measure that presents 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.

Diluted core earnings per common share ("core EPS") is core earnings available to common shareholders expressed per diluted weighted average common share outstanding.

The Company also uses financial performance measures that are prepared on a **constant exchange rate basis**, which are non-GAAP measures that 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). Quarterly amounts stated on a constant exchange rate basis in this MD&A are calculated, as appropriate, using the income statement and balance sheet exchange rates effective for 3Q21. Measures that are reported on a constant exchange rate basis include growth in core earnings, core general expenses, pre-tax core earnings, sales, APE sales, gross flows, core EBITDA, new business value, assets under management, assets under management and administration, and Global WAM revenue.

Assets under management and administration (“AUMA”) is a non-GAAP measure of the size of the Company. It is comprised of the non-GAAP measures assets under management (“AUM”), which includes both assets of general account and external client assets for which we provide investment management services, and assets under administration (“AUA”), which includes assets for which we provide administrative services only. Assets under management and administration is a common industry metric for WAM businesses.

Assets under management and administration

As at (\$ millions)	September 30, 2021	June 30, 2021	September 30, 2020
Total invested assets	\$ 419,087	\$ 405,209	\$ 414,234
Segregated funds net assets	387,799	383,845	351,408
Assets under management per financial statements	806,886	789,054	765,642
Mutual funds	277,421	265,110	221,118
Institutional advisory accounts (excluding segregated funds)	103,732	99,983	105,499
Other funds	12,562	12,232	9,914
Total assets under management	1,200,601	1,166,379	1,102,173
Other assets under administration	181,013	174,376	155,211
Currency impact	-	25,437	(42,506)
AUMA at constant exchange rates	\$ 1,381,614	\$ 1,366,192	\$ 1,214,878

Average assets under management and administration (“average AUMA”) is a non-GAAP measure of 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.

Manulife Bank average net lending assets is a non-GAAP measure of the average of Manulife Bank’s loans and mortgages, net of allowances, otherwise known as net lending assets. It is a measure of the size of Manulife Bank’s portfolio of loans and mortgages and is used to analyze and explain its earnings. It is calculated as the quarter-end average of the opening and the ending balance of net lending assets.

Consolidated capital is a non-GAAP measure. It serves as a foundation of our capital management activities at the MFC level. For regulatory reporting purposes, the numbers are further adjusted for various additions or deductions to capital as mandated by the guidelines used by OSFI. Consolidated capital is calculated as the sum of (i) total equity excluding accumulated other comprehensive income (“AOCI”) on cash flow hedges; and (ii) liabilities for capital instruments.

Consolidated capital

As at (\$ millions)	September 30, 2021	June 30, 2021	September 30, 2020
Total equity	\$ 55,951	\$ 54,254	\$ 53,884
Add AOCI loss on cash flow hedges	159	166	300
Add qualifying capital instruments	6,986	6,936	7,915
Consolidated capital	\$ 63,096	\$ 61,356	\$ 62,099

Core EBITDA is a non-GAAP 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.

Core EBITDA margin is a non-GAAP 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.

Global Wealth and Asset Management

(\$ millions, unaudited)	Quarterly Results							
	3Q21	2Q21	1Q21	4Q20	3Q20	2Q20	1Q20	4Q19
Core EBITDA	\$ 529	\$ 521	\$ 469	\$ 459	\$ 446	\$ 381	\$ 390	\$ 391
Amortization of deferred acquisition costs and other depreciation	(86)	(79)	(79)	(78)	(80)	(81)	(80)	(78)
Amortization of deferred sales commissions	(26)	(22)	(26)	(20)	(21)	(22)	(22)	(19)
Core earnings before income taxes	417	420	364	361	345	278	288	294
Core income tax (expense) recovery	(66)	(64)	(52)	(57)	(37)	(40)	(38)	(29)
Core earnings	\$ 351	\$ 356	\$ 312	\$ 304	\$ 308	\$ 238	\$ 250	\$ 265
Core EBITDA	\$ 529	\$ 521	\$ 469	\$ 459	\$ 446	\$ 381	\$ 390	\$ 391
Revenue	\$1,680	\$1,607	\$1,527	\$1,497	\$1,465	\$1,361	\$1,426	\$1,433
Core EBITDA Margin	31.5%	32.4%	30.7%	30.7%	30.4%	28.0%	27.3%	27.3%

Expense efficiency ratio is a non-GAAP measure which Manulife uses to measure progress towards our target to be more efficient. Efficiency ratio is defined as pre-tax general expenses included in core earnings (“core general expenses”) divided by the sum of core earnings before income taxes (“pre-tax core earnings”) and core general expenses.

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. The adjusted net worth is the IFRS shareholders’ equity adjusted for goodwill and intangibles, fair value of surplus assets, the carrying value of debt and preferred shares, and local statutory balance sheet, regulatory reserve, and capital for Manulife’s Asian business. The value of in-force business in Canada and the U.S. is the present value of expected future IFRS earnings 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 business excludes our Global WAM, Manulife Bank and Property and Casualty Reinsurance businesses.

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

Net annualized fee income 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.

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, 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 short-term Property and Casualty 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 excluding non-controlling interests. APE is calculated as 100% of annualized first year premiums for recurring premium products, and as

10% of single premiums for single premium products. Both NBV and APE used in the NBV margin calculation are after non-controlling interests and exclude our Global WAM, Manulife Bank and Property and Casualty Reinsurance businesses. 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.

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

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.

Bank new lending volumes include bank loans and mortgages authorized in the period.

Gross flows is a new business measure presented for our Global WAM business and includes all deposits into mutual funds, college savings 529 plans, 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, college savings 529 plans, group pension/retirement savings products, private wealth and institutional asset management products. 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 gross flows exceed redemptions, net flows will be positive and will be referred to as net inflows. Conversely, when redemptions exceed gross flows, net flows will be negative and will be referred to as net outflows.

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 next phase of our strategy and 2025 supplemental goals related to our highest potential businesses, net promoter score, straight-through-processing, portfolio optimization, our long-term care and variable annuities businesses, and our medium-term targets for core ROE, leverage ratio, common share dividend payout ratio and core EPS growth, 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, currency rates, investment losses and defaults, market liquidity and creditworthiness of guarantors, reinsurers and counterparties); the severity, duration and spread of the COVID-19 outbreak, as well as actions that have been, or may be taken by governmental authorities to contain COVID-19 or to treat its impact; 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 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; 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; 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 Factors and Risk Management" 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, 2021	Jun 30, 2021	Mar 31, 2021	Dec 31, 2020	Sept 30, 2020	Jun 30, 2020	Mar 31, 2020	Dec 31, 2019
Revenue								
Premium income								
Life and health insurance	\$ 9,269	\$ 8,716	\$ 8,986	\$ 8,651	\$ 5,302	\$ 7,560	\$ 8,454	\$ 8,373
Annuities and pensions ⁽¹⁾	714	698	622	672	704	673	901	865
Net premium income	9,983	9,414	9,608	9,323	6,006	8,233	9,355	9,238
Investment income	3,964	4,099	3,214	4,366	3,521	5,262	3,284	4,004
Realized and unrealized gains and losses on assets supporting insurance and investment contract liabilities ⁽²⁾	(958)	9,551	(17,056)	1,683	1,100	11,626	4,558	(4,503)
Other revenue	2,994	2,760	2,637	2,497	2,749	2,365	2,980	2,433
Total revenue	\$15,983	\$25,824	\$(1,597)	\$17,869	\$13,376	\$27,486	\$20,177	\$11,172
Income (loss) before income taxes	\$ 1,480	\$ 3,292	\$ 872	\$ 2,065	\$ 2,170	\$ 832	\$ 1,704	\$ 1,225
Income tax (expense) recovery	(166)	(610)	(7)	(224)	(381)	7	(597)	(89)
Net income (loss)	\$ 1,314	\$ 2,682	\$ 865	\$ 1,841	\$ 1,789	\$ 839	\$ 1,107	\$ 1,136
Net income (loss) attributed to shareholders	\$ 1,592	\$ 2,646	\$ 783	\$ 1,780	\$ 2,068	\$ 727	\$ 1,296	\$ 1,228
Reconciliation of core earnings to net income attributed to shareholders								
Total core earnings ⁽³⁾	\$ 1,517	\$ 1,682	\$ 1,629	\$ 1,474	\$ 1,453	\$ 1,561	\$ 1,028	\$ 1,477
Other items to reconcile net income attributed to shareholders to core earnings ⁽⁴⁾ :								
Investment-related experience outside of core earnings	700	739	77	585	147	(916)	(608)	182
Direct impact of equity markets, interest rates and variable annuity guarantee liabilities	(597)	217	(835)	(323)	390	73	792	(389)
Change in actuarial methods and assumptions	(41)	-	-	-	(198)	-	-	-
Reinsurance transactions	13	8	8	44	276	9	12	(34)
Restructuring charge	-	-	(115)	-	-	-	-	-
Tax-related items and other	-	-	19	-	-	-	72	(8)
Net income (loss) attributed to shareholders	\$ 1,592	\$ 2,646	\$ 783	\$ 1,780	\$ 2,068	\$ 727	\$ 1,296	\$ 1,228
Basic earnings (loss) per common share	\$ 0.80	\$ 1.33	\$ 0.38	\$ 0.90	\$ 1.04	\$ 0.35	\$ 0.64	\$ 0.61
Diluted earnings (loss) per common share	\$ 0.80	\$ 1.33	\$ 0.38	\$ 0.89	\$ 1.04	\$ 0.35	\$ 0.64	\$ 0.61
Segregated funds deposits	\$10,929	\$10,301	\$12,395	\$ 9,741	\$ 9,158	\$ 8,784	\$11,215	\$ 9,417
Total assets (in billions)	\$ 898	\$ 879	\$ 859	\$ 880	\$ 876	\$ 866	\$ 831	\$ 809
Weighted average common shares (in millions)	1,942	1,942	1,941	1,940	1,940	1,939	1,943	1,948
Diluted weighted average common shares (in millions)	1,946	1,946	1,945	1,943	1,942	1,941	1,947	1,953
Dividends per common share	\$ 0.280	\$ 0.280	\$ 0.280	\$ 0.280	\$ 0.280	\$ 0.280	\$ 0.280	\$ 0.250
CDN\$ to US\$1 - Statement of Financial Position	1.2741	1.2394	1.2575	1.2732	1.3339	1.3628	1.4187	1.2988
CDN\$ to US\$1 - Statement of Income	1.2602	1.2282	1.2660	1.3030	1.3321	1.3854	1.3449	1.3200

⁽¹⁾ Includes ceded premiums related to the reinsurance of a block of our legacy U.S. Bank-Owned Life Insurance of US\$2.4 billion in the third quarter of 2020.

⁽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.

⁽³⁾ Core earnings is a non-GAAP measure. See "Performance and non-GAAP measures" above.

⁽⁴⁾ For explanations of other items, see "Items excluded from core earnings" table in section A1 "Profitability" and for an operating segment split of these items see the 8 quarter trend tables in "Performance and non-GAAP measures" which reconcile net income (loss) attributed to shareholders to core earnings.

E6 Other

No changes were made in our internal control over financial reporting during the nine months ended September 30, 2021, 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 reviewed this MD&A and the unaudited interim financial report and MFC's Board of Directors approved this MD&A prior to its release.