



Manulife Financial Corporation

Management's Discussion and Analysis

For the three months ended March 31, 2019

MANAGEMENT'S DISCUSSION AND ANALYSIS

This Management's Discussion and Analysis ("MD&A") is current as of May 1, 2019, unless otherwise noted. This MD&A should be read in conjunction with our unaudited Interim Consolidated Financial Statements for the three months ended March 31, 2019 and the MD&A and audited Consolidated Financial Statements contained in our 2018 Annual Report.

For further information relating to our risk management practices and risk factors affecting the Company, see "Risk Factors" in our 2018 Annual Information Form, "Risk Management", "Risk Factors" and "Critical Actuarial and Accounting Policies" in the MD&A in our 2018 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. Growth
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. Updates to the ultimate reinvestment rate

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

D. CRITICAL ACTUARIAL AND ACCOUNTING POLICIES

1. Critical actuarial and accounting policies
2. Sensitivity of policy liabilities to asset related assumptions
3. Accounting and reporting changes

E. OTHER

1. Outstanding 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

| Profitability (\$ millions, unless otherwise stated) | Quarterly Results | | |
|--|-------------------|----------|----------|
| | 1Q19 | 4Q18 | 1Q18 |
| Net income attributed to shareholders | \$ 2,176 | \$ 593 | \$ 1,372 |
| Core earnings ⁽¹⁾ | \$ 1,548 | \$ 1,337 | \$ 1,303 |
| Diluted earnings per common share (\$) | \$ 1.08 | \$ 0.28 | \$ 0.67 |
| Diluted core earnings per common share (\$) ⁽¹⁾ | \$ 0.76 | \$ 0.65 | \$ 0.64 |
| Return on common shareholders' equity ("ROE") | 20.1% | 5.3% | 14.1% |
| Core ROE ⁽¹⁾ | 14.2% | 12.5% | 13.4% |
| Expense efficiency ratio ⁽¹⁾ | 49.9% | 55.2% | 52.0% |

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

Manulife's net income attributed to shareholders was \$2,176 million in the first quarter of 2019 ("1Q19") compared with \$1,372 million in the first quarter of 2018 ("1Q18"). The increase compared with 1Q18 was driven by higher gains from investment-related experience and from the direct impact of markets, and core earnings¹ growth. Net income attributed to shareholders is comprised of core earnings (consisting of items we believe reflect the underlying earnings capacity of the business), which amounted to \$1,548 million in 1Q19 compared with \$1,303 million in 1Q18, and items excluded from core earnings, which amounted to a net gain of \$628 million in 1Q19 compared with a net gain of \$69 million in 1Q18.

Diluted earnings per common share were \$1.08 and return on common shareholders' equity ("ROE") was 20.1%, compared with \$0.67 and 14.1%, respectively, for 1Q18. Diluted core earnings per common share¹ were \$0.76 and core return on common shareholders' equity ("core ROE")¹ was 14.2%, compared with \$0.64 and 13.4%, respectively, for 1Q18.

The \$245 million or 15%² increase in core earnings was driven by the favourable impact of new business in Asia and the U.S., higher investment income in our surplus portfolio, including the favourable impact of equity markets on seed money investments in new segregated and mutual funds, and improved expense efficiency¹. These increases were partially offset by both the impact of reinsurance transactions in 2018 and the sale of alternative long-duration assets ("ALDA") to improve the capital efficiency of our legacy businesses. Core earnings in 1Q19 included net policyholder experience gains of \$20 million post-tax (\$18 million pre-tax) compared with charges of \$3 million post-tax (\$2 million pre-tax) in 1Q18.

| Core Earnings by Segment ⁽¹⁾ (\$ millions, unaudited) | Quarterly Results | | |
|---|-------------------|-----------------|-----------------|
| | 1Q19 | 4Q18 | 1Q18 |
| Asia | \$ 520 | \$ 463 | \$ 431 |
| Canada | 283 | 305 | 283 |
| U.S. | 475 | 454 | 422 |
| Global Wealth and Asset Management | 233 | 231 | 227 |
| Corporate and Other (excluding core investment gains) | (63) | (216) | (156) |
| Core investment gains ⁽²⁾ | 100 | 100 | 96 |
| Total core earnings | \$ 1,548 | \$ 1,337 | \$ 1,303 |

⁽¹⁾ 2018 comparatives for core earnings in each segment have been updated to reflect the 2019 methodology for allocating capital and interest on surplus to our insurance segments from the Corporate and Other segment.

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

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

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

Items excluded from core earnings were \$628 million in 1Q19 compared with \$69 million in 1Q18.

| Items excluded from core earnings (\$ millions, unaudited) | Quarterly Results | | |
|--|-------------------|-----------------|--------------|
| | 1Q19 | 4Q18 | 1Q18 |
| Investment-related experience outside of core earnings ⁽¹⁾ | \$ 327 | \$ (130) | \$ - |
| Direct impact of equity markets and interest rates and variable annuity guarantee liabilities ⁽²⁾ | 249 | (675) | 50 |
| <i>Direct impact of equity markets and variable annuity guarantee liabilities</i> | 367 | (723) | (187) |
| <i>Fixed income reinvestment rates assumed in the valuation of policy liabilities</i> | (160) | 112 | 313 |
| <i>Sale of AFS bonds and derivative positions in the Corporate and Other segment</i> | 42 | (64) | (76) |
| Restructuring charge | - | (63) | - |
| Reinsurance transactions and other ⁽³⁾ | 52 | 124 | 19 |
| Items excluded from core earnings | \$ 628 | \$ (744) | \$ 69 |

⁽¹⁾ Investment-related experience gains in 1Q19 reflected higher-than-expected returns (including fair value changes) on ALDA and strong credit experience. Investment-related experience gains in 1Q18 reflected the favourable impact of fixed income reinvestment activities on the measurement of our policy liabilities and strong credit experience, partially offset by lower than expected returns (including fair value changes) on ALDA. Total investment-related experience gains in 1Q19 were \$427 million, compared with \$96 million in 1Q18, and in accordance with our definition of core earnings, we included \$100 million of investment-related experience gains in core earnings and \$327 million in items excluded from core earnings in 1Q19 (\$96 million and \$nil, respectively, in 1Q18).

⁽²⁾ The direct impact of markets was a net gain of \$249 million in 1Q19 reflecting the favourable impact of the recovery in global equity markets partially offset by the unfavourable impact of interest rates in the quarter, primarily from the narrowing corporate spreads. The direct impact of markets was a net gain of \$50 million in 1Q18 primarily due to widening corporate spreads and a rising and flattening of the yield curve in the U.S., partially offset by charges from unfavourable equity markets and the sale of available-for-sale (“AFS”) bonds.

⁽³⁾ The \$52 million gain from reinsurance transactions and other in 1Q19 is related to reinsurance transactions in our legacy business in Canada and the U.S.

A2 Growth

| Growth ⁽¹⁾ (\$ millions, unaudited) | Quarterly Results | | |
|--|-------------------|----------|----------|
| | 1Q19 | 4Q18 | 1Q18 |
| Asia APE sales | \$ 1,336 | \$ 1,040 | \$ 984 |
| Canada APE sales | \$ 261 | \$ 277 | \$ 290 |
| U.S. APE sales | \$ 143 | \$ 152 | \$ 113 |
| Total APE sales | \$ 1,740 | \$ 1,469 | \$ 1,387 |
| Asia new business value | \$ 411 | \$ 402 | \$ 325 |
| Canada new business value | \$ 62 | \$ 51 | \$ 49 |
| U.S. new business value | \$ 46 | \$ 48 | \$ 10 |
| Total new business value | \$ 519 | \$ 501 | \$ 384 |
| Wealth and asset management gross flows (\$ billions) | \$ 27.9 | \$ 26.3 | \$ 36.5 |
| Wealth and asset management net flows (\$ billions) | \$ (1.3) | \$ (9.0) | \$ 10.0 |
| Wealth and asset management assets under management and administration (\$ billions) | \$ 648.1 | \$ 608.8 | \$ 626.8 |

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

Annualized premium equivalent (“APE”) sales¹ were \$1.7 billion in 1Q19, an increase of 23% compared with 1Q18. In Asia, APE sales increased 32%, with growth across Japan, Hong Kong and Asia Other². APE sales in Japan increased 62%, driven by strong sales of the corporate-owned life insurance (“COLI”) product in advance of a potential change in tax regulations. Hong Kong sales increased 11%, driven by growth in our bancassurance channel. Asia Other APE sales increased 20% driven by growth in both the bancassurance and agency channels. In Canada, APE sales declined 10% due to lower large-case group insurance sales, partially offset by the continued success of our Manulife Par product. In the U.S., APE sales increased 20% as a result of higher universal life and international sales.

New business value (“NBV”)¹ was \$519 million in 1Q19, an increase of 31% compared with 1Q18. In Asia, NBV increased 23% to \$411 million driven by higher sales, partially offset by a less favourable business mix. In Canada, NBV increased 27% to \$62 million driven by the new Manulife Par product. In the U.S., NBV more than quadrupled to \$46 million primarily due to actions to improve margins and a more favourable product mix.

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

² Asia Other excludes Japan and Hong Kong.

Wealth and asset management (“WAM”) gross flows¹ were \$27.9 billion in 1Q19, 26% lower than 1Q18, driven by lower institutional asset management and retail gross flows across all regions, partially offset by higher retirement gross flows in Canada from new plan sales and recurring contributions. In institutional asset management, lower gross flows were primarily due to the funding of large mandates in all regions in 1Q18. In retail, we experienced lower gross flows amid ongoing market volatility compared to strong 1Q18 results.

Wealth and asset management net flows¹ were negative \$1.3 billion in 1Q19 compared with positive net flows of \$10.0 billion in 1Q18. Net flows in Asia were \$0.6 billion in 1Q19, down \$1.4 billion from 1Q18, driven by lower gross flows in institutional asset management. Net flows in Canada were \$2.1 billion in 1Q19, a decrease of \$1.4 billion from 1Q18, which was also driven by lower gross flows in institutional asset management. Net flows in the U.S. were negative \$4.0 billion in 1Q19 compared with positive net flows of \$4.5 billion in 1Q18. This was primarily due to lower gross flows in retail and institutional asset management. Additionally, we reported higher redemptions, partly due to the rationalization of our investment management teams, designed to improve margins and to focus our line-up on our core capabilities where we can generate further scale, as well as portfolio rebalancing by a large advisor.

A3 Financial strength

| Financial strength (unaudited) | Quarterly Results | | |
|---|-------------------|----------|----------|
| | 1Q19 | 4Q18 | 1Q18 |
| MLI’s LICAT ratio | 144% | 143% | 129% |
| Financial leverage ratio | 27.0% | 28.6% | 29.7% |
| Total consolidated capital (\$ billions) ⁽¹⁾ | \$ 57.3 | \$ 56.0 | \$ 52.5 |
| Book value per common share (\$) | \$ 22.34 | \$ 21.38 | \$ 19.72 |
| Book value per common share excluding AOCI (\$) | \$ 19.06 | \$ 18.23 | \$ 17.28 |

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

The Life Insurance Capital Adequacy Test (“LICAT”) for The Manufacturers Life Insurance Company (“MLI”) as at March 31, 2019 was 144%, compared with 129% as at March 31, 2018 and 143% as at December 31, 2018. The 1 percentage point increase compared with December 31, 2018 was primarily due to strong earnings and capital initiatives, which more than offset the impact of dividends and the redemption of subordinated debentures. Market impact overall was neutral, with a favourable reduction in risk-free rates and growth in equity markets, offset by a narrowing of corporate spreads.

In 1Q19, we entered into a reinsurance agreement in Canada and completed a previously-announced reinsurance transaction in the U.S., releasing \$85 million in capital. In addition, we released \$250 million in capital from the sale of ALDA as part of our decision announced in December 2017 to free up approximately \$2 billion in capital over 12-18 months. We have now exceeded our target, and have cumulatively released \$2.1 billion in capital from the program.

MFC’s LICAT ratio was 133% as at March 31, 2019 compared with 132% as at December 31, 2018. The difference between the MLI and MFC ratios as at March 31, 2019 was largely due to the \$4.7 billion of MFC senior debt outstanding that does not qualify as available capital at the MFC level.

MFC’s financial leverage ratio as at March 31, 2019 was 27.0%, a decrease of 1.6 percentage points from the December 31, 2018 ratio of 28.6%, as growth in retained earnings, the redemption of \$0.5 billion in subordinated debentures and the impact of lower interest rates on unrealized gains on AFS securities, more than offset the impact of a stronger Canadian dollar.

MFC’s total consolidated capital¹ as at March 31, 2019 was \$57.3 billion, an increase of \$4.8 billion compared with March 31, 2018 consolidated capital of \$52.5 billion and an increase of \$1.3 billion compared with December 31, 2018 consolidated capital of \$56.0 billion. The increase from December 31, 2018 was primarily driven by net income attributed to shareholders over the last 3 months and an increase in the market value of AFS securities, partially offset by the impact of changes in foreign currency exchange rates as well as the redemption of subordinated debentures of \$0.5 billion and dividend payments over the last 3 months.

Book value per common share as at March 31, 2019 was \$22.34, an increase of 4% compared with \$21.38 as at December 31, 2018, and the book value per common share excluding accumulated other comprehensive income (“AOCI”) was \$19.06 as at March 31, 2019, an increase of 5% compared with \$18.23 as at December 31, 2018. The increase in the book value per common share is due to the \$1.8 billion increase in equity which included a \$0.3 billion increase in AOCI.

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

The number of common shares outstanding was 1,970 million as at March 31, 2019 and 1,971 million as at December 31, 2018.

A4 Revenue

| (\$ millions, unaudited) | Quarterly Results | | |
|--|-------------------|-----------------|-----------------|
| | 1Q19 | 4Q18 | 1Q18 |
| Gross premiums | \$ 10,187 | \$ 9,990 | \$ 9,466 |
| Premiums ceded to reinsurers | (1,873) | (8,158) | (1,141) |
| Net premium income | 8,314 | 1,832 | 8,325 |
| Investment income | 3,747 | 3,278 | 3,235 |
| Other revenue | 2,562 | 2,291 | 2,502 |
| Revenue before realized and unrealized investment gains and losses | 14,623 | 7,401 | 14,062 |
| Realized and unrealized gains and losses on assets supporting insurance and investment contract liabilities and on the macro hedge program | 8,926 | 1,113 | (5,316) |
| Total revenue | \$ 23,549 | \$ 8,514 | \$ 8,746 |

Total revenue in 1Q19 was \$23.5 billion compared with \$8.7 billion in 1Q18. 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 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.

1Q19 revenue before realized and unrealized investment gains and losses of \$14.6 billion increased \$0.6 billion compared with 1Q18, primarily due to business growth in Asia and higher investment income, partially offset by higher ceded premiums of \$0.7 billion from the 1Q19 reinsurance transactions related to our legacy businesses.

Net realized and unrealized gains and losses on assets supporting insurance and investment contract liabilities and on the macro hedge program was a gain of \$8.9 billion in 1Q19 compared with a charge of \$5.3 billion in 1Q18. The 1Q19 gain was primarily due to an overall decrease in interest rates and rising equity markets. The 1Q18 charge was due to an overall increase in interest rates.

A5 Assets under management and administration (“AUMA”)¹

AUMA as at March 31, 2019 was \$1.1 trillion, an increase of 6% compared with December 31, 2018. The primary driver of the increase was the favourable impact of markets during the quarter.

A6 Impact of fair value accounting

Fair value accounting policies affect the measurement of both our assets and our liabilities. The impact on the measurement of both assets and liabilities of investment activities and market movements are reported as experience gains and losses on investments 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 1Q19 experience).

Net realized and unrealized gains on assets supporting insurance and investment contract liabilities and on the macro hedge program were \$8.9 billion for 1Q19 (1Q18 – losses of \$5.3 billion). See “Revenue” section above for discussion of results.

As outlined in the “Critical Actuarial and Accounting Policies” in the MD&A in our 2018 Annual Report, net insurance contract liabilities as permitted under IFRS 4 are determined using the 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 policies will result in an investment-related experience gain (loss). See description of investment-related experience in “Performance and non-GAAP measures” below.

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

As noted in our 2018 Annual MD&A, IFRS 17, which is expected to be effective January 1, 2022, will replace IFRS 4 and therefore CALM. While there are many differences between IFRS 17 and IFRS 4, two items of note are the discount rate used to estimate the present value of insurance liabilities, and the reporting of new business gains. We reported \$225 million (post-tax) of new business gains in net income attributed to shareholders in 1Q19. Under IFRS 17, new business gains are recorded on the balance sheet and amortized into income as services are provided.

A7 Impact of foreign currency exchange rates

Changes in foreign currency exchange rates increased core earnings by \$54 million in 1Q19 compared with 1Q18 primarily due to a weaker Canadian dollar compared with the U.S. dollar. The impact of foreign currency exchange rates on items excluded from core earnings does not provide relevant information given the nature of these items.

A8 Business highlights

We progressed our efforts to redefine insurance and how we interact with customers through our behavioural insurance offerings – Manulife and John Hancock Vitality in North America and ManulifeMOVE in Asia. Behavioural insurance is increasingly recognized as a differentiator as evident in our Customer Net Promoter Scores and number of enrollees.

In Asia, deployment and adoption of our electronic point of sale and claim systems are improving both the customer experience and our expense efficiency. New this quarter, in the U.S. we launched an industry-first voice-enabled retirement product on Amazon's Alexa.

A9 Updates to the ultimate reinvestment rate

The Canadian Actuarial Standards Board issued an exposure draft on new assumptions with reductions to the Ultimate Reinvestment Rate ("URR") and updates to the calibration criteria for stochastic risk-free rates. The exposure draft recommends a reduction of 15 basis points in the URR, and a corresponding change to stochastic risk-free rate modeling. We expect the final standard to be issued in the third quarter of 2019, and assuming the changes are in accordance with the exposure draft, would reduce net income attributed to shareholders by approximately \$0.5 billion (post-tax).¹

B PERFORMANCE BY SEGMENT

B1 Asia

| (\$ millions, unless otherwise stated) | Quarterly Results | | |
|---|-------------------|----------|----------|
| | 1Q19 | 4Q18 | 1Q18 |
| <i>Canadian dollars</i> | | | |
| Net income attributed to shareholders ⁽¹⁾ | \$ 695 | \$ 318 | \$ 452 |
| Core earnings ^{(1),(2)} | 520 | 463 | 431 |
| Annualized premium equivalent sales | 1,336 | 1,040 | 984 |
| Revenue | 8,752 | 5,301 | 4,311 |
| Revenue before realized and unrealized investment gains and losses ⁽³⁾ | 6,061 | 5,472 | 5,271 |
| Assets under management (\$ billions) ⁽¹⁾ | 111.0 | 108.1 | 97.5 |
| <i>U.S. dollars</i> | | | |
| Net income attributed to shareholders ⁽¹⁾ | US\$ 522 | US\$ 240 | US\$ 359 |
| Core earnings ^{(1),(2)} | 391 | 350 | 342 |
| Annualized premium equivalent sales | 1,005 | 787 | 778 |
| Revenue | 6,584 | 4,012 | 3,409 |
| Revenue before realized and unrealized investment gains and losses ⁽³⁾ | 4,560 | 4,141 | 4,168 |
| Assets under management (\$ billions) ⁽¹⁾ | 83.0 | 79.3 | 75.6 |

⁽¹⁾ The 2018 comparatives for net income attributed to shareholders, core earnings and assets under management have been updated to reflect the 2019 methodology for allocating capital and interest on surplus to our insurance segments from the Corporate and Other segment.

⁽²⁾ See "Performance and non-GAAP measures" for a reconciliation between IFRS net income attributed to shareholders and core earnings.

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

Asia's net income attributed to shareholders was \$695 million in 1Q19 compared with \$452 million in 1Q18. Net income attributed to shareholders is comprised of core earnings, which was \$520 million in 1Q19 compared with \$431 million in 1Q18, and items excluded from core earnings, which amounted to a net gain of \$175 million in 1Q19 compared with a net gain of \$21 million in 1Q18. The changes in net income attributed to shareholders and core earnings expressed in Canadian dollars are due to the factors described below and, in addition, core earnings reflected a net \$22 million favourable impact due to changes in foreign currency exchange rates versus the Canadian dollar.

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

Expressed in U.S. dollars, the presentation currency of the segment, net income attributed to shareholders was US\$522 million in 1Q19 compared with US\$359 million in 1Q18 and core earnings were US\$391 million in 1Q19 compared with US\$342 million in 1Q18. Items excluded from core earnings were a net gain of US\$131 million in 1Q19 compared with a net gain of US\$17 million in 1Q18 (see a reconciliation of net income attributed to shareholders to core earnings in “Performance and non-GAAP measures” below).

Core earnings in 1Q19 increased 17% compared with 1Q18. The increase in core earnings was driven by the growth in new business which included strong sales of the COLI product in advance of a potential change in Japan’s tax regulations.

APE sales in 1Q19 exceeded US\$1 billion for the first time, an increase of 32% compared with 1Q18 driven by growth in Japan, Hong Kong and Asia Other. NBV in 1Q19 was US\$309 million, a 23% increase compared with 1Q18, reflecting growth in Japan, Hong Kong and Asia Other. New business value margin (“NBV margin”)¹ was 33.6% in 1Q19 compared with 35.9% in 1Q18.

- Japan APE sales in 1Q19 were US\$409 million, an increase of 62% compared with 1Q18 driven by strong sales of the COLI product reflecting an increase in customer purchases in anticipation of a potential change in tax regulations. We have temporarily suspended sales of our COLI product offering until the tax changes are clarified. Japan NBV in 1Q19 of US\$115 million increased 57% compared with 1Q18 due to higher sales volumes. Japan NBV margin was 28.2%, a decrease of 0.8 percentage points compared with 1Q18.
- Hong Kong APE sales in 1Q19 were US\$165 million, an 11% increase compared with 1Q18 driven by strong growth through our bank channel. Hong Kong NBV in 1Q19 of US\$98 million increased 7% compared with 1Q18, due to higher sales partially offset by a decline in interest rates. Hong Kong NBV margin was 59.5%, a decrease of 2.3 percentage points compared with 1Q18.
- Asia Other APE sales in 1Q19 were US\$431 million, a 20% increase compared with 1Q18 driven by double-digit growth in both bancassurance and agency channels. Asia Other NBV in 1Q19 of US\$96 million increased 10% compared with 1Q18 due to higher sales, partially offset by the impact of changes in product mix. Asia Other NBV margin was 27.6%, a decrease of 1.5 percentage points compared with 1Q18.

Revenue was US\$6.6 billion in 1Q19 compared with US\$3.4 billion in 1Q18. Revenue before realized and unrealized investment gains and losses, was US\$4.6 billion in 1Q19, an increase of 9% compared with 1Q18, driven by recurring premium growth from in-force business and higher new business premiums.

Assets under management¹ were US\$83.0 billion as at March 31, 2019, an increase of US\$3.7 billion or 5% compared with December 31, 2018, driven by net customer inflows of US\$2.6 billion and an increase in the fair value of invested assets due to lower interest rates.

Business highlights - In 1Q19, we launched a full suite of tax-deductible insurance solutions tailored to enhance the health, well-being and retirement preparedness of Hong Kong people, under the Hong Kong Voluntary Health Insurance plans. In addition, we launched Manulife Financial Advisors Company, a wholly-owned independent agency in Japan, that will distribute Manulife insurance solutions as well as select products from other insurance providers.

B2 Canada

| (\$ millions, unless otherwise stated) | Quarterly Results | | |
|--|-------------------|---------|--------|
| | 1Q19 | 4Q18 | 1Q18 |
| Net income (loss) attributed to shareholders ⁽¹⁾ | \$ 751 | \$ (74) | \$ 452 |
| Core earnings ^{(1),(2)} | 283 | 305 | 283 |
| Annualized premium equivalent sales | 261 | 277 | 290 |
| Manulife Bank average net lending assets (\$ billions) | 21.7 | 21.5 | 20.6 |
| Revenue | 7,090 | 3,830 | 3,184 |
| Revenue before realized and unrealized investment income gains and losses ⁽³⁾ | 3,766 | 3,546 | 3,572 |
| Assets under management (\$ billions) ⁽¹⁾ | 146.6 | 141.9 | 143.4 |

⁽¹⁾ The 2018 comparatives for net income (loss) attributed to shareholders, core earnings and assets under management have been updated to reflect the 2019 methodology for allocating capital and interest on surplus to our insurance segments from the Corporate and Other segment.

⁽²⁾ See “Performance and non-GAAP measures” below for a reconciliation between IFRS net income attributed to shareholders and core earnings.

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

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

Canada's 1Q19 net income attributed to shareholders was \$751 million compared with \$452 million in 1Q18. Net income attributed to shareholders is comprised of core earnings, which were \$283 million in 1Q19, in line with 1Q18, and items excluded from core earnings, which were a net gain of \$468 million in 1Q19 compared with a net gain of \$169 million in 1Q18 (see a reconciliation of net income attributed to shareholders to core earnings in "Performance and non-GAAP measures" below).

Core earnings were in line with 1Q18, reflecting the favourable impact of new business in individual insurance from sales of the Manulife Par product, offset by lower earnings as a result of reinsurance actions taken last year to free up capital on our legacy businesses and a number of other smaller items.

APE sales of \$261 million in 1Q19 decreased by \$29 million or 10% compared with 1Q18, driven by variability in the large-case group insurance market and lower annuities sales, partially offset by the introduction of Manulife Par.

- Individual insurance APE sales in 1Q19 of \$78 million increased \$24 million or 44% compared with 1Q18, driven by the introduction of Manulife Par in the second half of last year.
- Group insurance APE sales in 1Q19 of \$127 million decreased \$36 million or 22% compared with 1Q18, due to variability in the large-case group insurance market.
- Annuities APE sales in 1Q19 of \$56 million decreased \$17 million or 23% compared with 1Q18. We are focused on growth in lower risk segregated fund products, which in 1Q19 accounted for 77% of annuity APE sales.

Manulife Bank quarterly average net lending assets were \$21.7 billion as at March 31, 2019, up \$0.2 billion or 1% from December 31, 2018.

Revenue in 1Q19 was \$7.1 billion compared with \$3.2 billion in 1Q18. Revenue before realized and unrealized investment gains and losses was \$3.8 billion in 1Q19, an increase of \$0.2 billion compared with 1Q18.

Assets under management were \$146.6 billion as at March 31, 2019, an increase of \$4.7 billion or 3% from December 31, 2018, due to the favourable impact of markets.

Business highlights - In 1Q19, we entered into a reinsurance transaction on our legacy individual annuities block, reducing risk and freeing up \$65 million of capital. In addition, our Life Moments initiative won the 2018 International Service Excellence Award as the Customer Service Project of the Year for supporting Canadians during life's biggest events, and we continued to increase the number of robotics-processed transactions to 1.1 million in the quarter, making it easier for our customers to do business with us and improving our expense efficiency ratio. We also launched a new advertising campaign, "A little can do a lot" encouraging Canadians to improve their financial habits by taking little steps to achieve big goals.

B3 U.S.

| (\$ millions, unless otherwise stated) | Quarterly Results | | |
|--|-------------------|----------|----------|
| | 1Q19 | 4Q18 | 1Q18 |
| <i>Canadian dollars</i> | | | |
| Net income attributed to shareholders ⁽¹⁾ | \$ 441 | \$ 513 | \$ 528 |
| Core earnings ^{(1),(2)} | 475 | 454 | 422 |
| Annualized premium equivalent sales | 143 | 152 | 113 |
| Revenue | 6,140 | (1,792) | 7 |
| Revenue before realized and unrealized investment income gains and losses ⁽³⁾ | 3,230 | (2,765) | 3,968 |
| Assets under management (\$ billions) ⁽¹⁾ | 224.3 | 223.6 | 228.3 |
| <i>U.S. dollars</i> | | | |
| Net income attributed to shareholders ⁽¹⁾ | US\$ 332 | US\$ 389 | US\$ 417 |
| Core earnings ^{(1),(2)} | 357 | 345 | 333 |
| Annualized premium equivalent sales | 108 | 115 | 90 |
| Revenue | 4,618 | (1,358) | 6 |
| Revenue before realized and unrealized investment income gains and losses ⁽³⁾ | 2,429 | (2,095) | 3,138 |
| Assets under management (\$ billions) ⁽¹⁾ | 167.8 | 163.9 | 177.0 |

⁽¹⁾ The 2018 comparatives for net income attributed to shareholders, core earnings and assets under management have been updated to reflect the 2019 methodology for allocating capital and interest on surplus to our insurance segments from the Corporate and Other segment.

⁽²⁾ See "Performance and non-GAAP measures" below for a reconciliation between IFRS net income attributed to shareholders and core earnings.

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

U.S. 1Q19 net income attributed to shareholders was \$441 million compared with \$528 million in 1Q18. Net income attributed to shareholders is comprised of core earnings, which amounted to \$475 million in 1Q19 compared with \$422 million in 1Q18, and items excluded from core earnings, which amounted to a net charge of \$34 million in 1Q19 compared with a net gain of \$106 million in 1Q18. The changes in net income attributed to shareholders and core earnings expressed in Canadian dollars are due to the factors described below and, in addition, the change in core earnings reflected a net \$23 million favourable currency impact from the strengthening of the U.S. dollar compared with the Canadian dollar.

Expressed in U.S. dollars, the functional currency of the segment, 1Q19 net income attributed to shareholders was US\$332 million compared with US\$417 million in 1Q18, core earnings were US\$357 million in 1Q19 compared with US\$333 million in 1Q18, and items excluded from core earnings were a net charge of US\$25 million in 1Q19 compared with a net gain of US\$84 million in 1Q18 (see a reconciliation of net income attributed to shareholders to core earnings in “Performance and non-GAAP measures” below).

The US\$24 million increase in core earnings was primarily driven by the impact of higher sales volume and improved product margins, partially offset by the impact of the 2018 portfolio optimization activities on our legacy businesses. Long-term care policyholder experience was a net neutral in the quarter.

APE sales in 1Q19 of US\$108 million increased 20% compared with 1Q18, primarily due to enhanced features on the indexed universal life product offerings, heightened customer interest in international products, and continued ramp-up of product sales with the John Hancock Vitality PLUS feature which benefited multiple products in 1Q19. Term and protection universal life sales continue to be impacted by competitive pressures.

Revenue in 1Q19 was US\$4.6 billion compared with US\$6 billion in 1Q18. Revenue before net realized and unrealized investment gains and losses was US\$2.4 billion in 1Q19, a decrease compared with US\$3.1 billion in 1Q18. The US\$0.7 billion decrease was primarily due to US\$0.5 billion of ceded premiums from the reinsurance of our legacy individual and group payout annuities business on policies originally sold in New York.

Assets under management as at March 31, 2019 were US\$167.8 billion, an increase of 2% from December 31, 2018. The increase was driven by the impact of favourable equity markets on the segregated fund assets and favourable mark-to-market movement on assets supporting our insurance business resulting from interest rate movements partially offset by the continued run-off of the annuities business including the reinsurance of the New York portion of the payout annuity block in 1Q19.

Business highlights - In 1Q19, we closed the reinsurance of the block of New York individual and group payout annuity policies releasing capital of US\$15 million. In addition, we improved the new business profitability in our brokerage life insurance business by improved pricing, reducing expenses and enhancing our focus on sales support and training.

B4 Global Wealth and Asset Management

| (\$ millions, unless otherwise stated) | Quarterly Results | | |
|--|-------------------|---------|--------|
| | 1Q19 | 4Q18 | 1Q18 |
| Net income attributed to shareholders ⁽¹⁾ | \$ 233 | \$ 218 | \$ 223 |
| Core earnings ⁽¹⁾ | 233 | 231 | 227 |
| Core EBITDA ⁽²⁾ | 366 | 362 | 360 |
| Sales | | | |
| Wealth and asset management gross flows | 27,873 | 26,306 | 36,466 |
| Wealth and asset management net flows | (1,323) | (8,954) | 9,977 |
| Revenue | 1,334 | 1,371 | 1,347 |
| Assets under management and administration (\$ billions) | 648.1 | 608.8 | 626.8 |

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

⁽²⁾ Core EBITDA is a non-GAAP measure and is core earnings before interest, taxes, depreciation and amortization. See “Performance and non-GAAP measures” below.

Global Wealth and Asset Management’s net income attributed to shareholders was \$233 million in 1Q19 compared with \$223 million in 1Q18. Net income attributed to shareholders is comprised of core earnings, which were \$233 million in 1Q19 compared with \$227 million in 1Q18 and items excluded from core earnings, which were Nil in 1Q19 compared with a net charge of \$4 million in 1Q18.

Core earnings were in line with 1Q18 as lower fee income was offset by lower expenses as we continued to make progress in leveraging our global scale and driving cost efficiencies.

Core EBITDA was \$366 million in 1Q19, a decrease of 2% compared with 1Q18, driven by the same factors as mentioned above.

Gross Flows and Net Flows - As noted above, gross flows were \$27.9 billion in 1Q19, a decrease of 26% compared with 1Q18, and net flows were negative \$1.3 billion in 1Q19, a decrease of \$11.3 billion compared with 1Q18. By geography the results were:

WAM Asia:

- Gross flows in Asia in 1Q19 were \$4.6 billion, a decrease of \$2.8 billion or 39% compared with 1Q18, driven by lower gross flows in institutional asset management due to large contributions in 1Q18 from existing and new clients and by lower retail flows.
- Net flows in 1Q19 were \$0.6 billion compared with net flows of \$2.0 billion in 1Q18, driven by lower gross flows as mentioned above, partially offset by lower redemptions in mainland China from retail money market funds.

WAM Canada:

- Gross flows in Canada in 1Q19 were \$6.4 billion, a decrease of \$1.7 billion or 21% compared with 1Q18, driven by the non-recurrence of a \$1.0 billion fixed income mandate in institutional asset management and lower retail flows compared to strong 1Q18 results. This was partially offset by higher new plan sales and recurring contributions in retirement.
- Net flows were \$2.1 billion in 1Q19 compared with net flows of \$3.5 billion in 1Q18, driven by lower gross flows as mentioned above.

WAM U.S.:

- Gross flows in the U.S. in 1Q19 were \$16.9 billion, a decrease of \$4.1 billion or 23% compared with 1Q18, driven by lower retail gross flows amid ongoing market volatility, and the non-recurrence of a \$1.0 billion funding from an existing client in institutional asset management in 1Q18. Retirement gross flows were in line with the prior year.
- Net flows in 1Q19 were negative \$4.0 billion compared with positive net flows of \$4.5 billion in 1Q18, driven by lower gross flows in retail and institutional asset management along with higher redemptions, partly due to the rationalization of our investment management teams, designed to improve margins and to focus our line-up on our core capabilities where we can generate further scale, as well as portfolio rebalancing by a large advisor.

Revenue in 1Q19 was \$1.3 billion, in line with 1Q18.

Assets under management and administration of \$648 billion as at March 31, 2019 increased 8% compared with December 31, 2018 driven by favourable investment performance, partially offset by negative net flows. Global WAM also manages \$189 billion in assets for the Company's non-WAM reporting segments, and including those managed assets, AUMA managed by Global WAM was \$837 billion as at March 31, 2019 compared with \$790 billion as at December 31, 2018.

Business highlights - In 1Q19, we continued to diversify our product offering with the launch of the Manulife Shariah Global REIT Fund in Malaysia, the first Shariah global REIT fund in the world available to retail investors, and launched our 15th ETF in the U.S., the John Hancock Multifactor Media and Communications fund. We furthered our commitment to enhancing our customers' digital experience in 1Q19 as we integrated Amazon's Alexa on our U.S. retirement platform, enabling our customers to access the most popular website queries through their Alexa-enabled devices, such as account balances, fund allocations, personal rate of return and more.

B5 Corporate and Other

| (\$ millions, unless otherwise stated) | Quarterly Results | | |
|---|-------------------|----------|----------|
| | 1Q19 | 4Q18 | 1Q18 |
| Net income (loss) attributed to shareholders⁽¹⁾ | \$ 56 | \$ (382) | \$ (283) |
| Core loss excluding core investment gains ^{(1),(2)} | \$ (63) | \$ (216) | \$ (156) |
| Core investment gains | 100 | 100 | 96 |
| Total core gain (loss) | \$ 37 | \$ (116) | \$ (60) |
| Revenue | \$ 235 | \$ (196) | \$ (101) |

⁽¹⁾ The 2018 comparatives for net income (loss) attributed to shareholders and core loss excluding core investment gains have been updated to reflect the 2019 methodology for allocating capital and interest on surplus to our insurance segments from the Corporate and Other segment.

⁽²⁾ See "Performance and non-GAAP measures" for a reconciliation between IFRS net income 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’s 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 other segments, we report all investment-related experience in items excluded from core earnings.

Corporate and Other reported a net gain attributed to shareholders of \$56 million in 1Q19 compared with a net loss attributed to shareholders of \$283 million in 1Q18. The core gain was \$37 million in 1Q19 compared with a core loss of \$60 million in 1Q18 and the items excluded from core gain/loss amounted to a net gain of \$19 million in 1Q19 compared with a net charge of \$223 million in 1Q18 (see a reconciliation of net income (loss) attributed to shareholders to core earnings in “Performance and non-GAAP measures” below).

The \$97 million improvement in core earnings was largely due to the favourable impact of markets on seed money investments in new segregated and mutual funds, higher investment income, lower withholding taxes on future U.S. remittances and lower expenses, partially offset by lower gains on AFS equities.

Revenue in 1Q19 was a gain of \$235 million compared with a loss of \$101 million in 1Q18. The variance was driven by realized gains on the sale of AFS bonds in 1Q19 compared with losses in 1Q18, the favourable impact of markets on seed money investments, and higher investment income, partially offset by lower realized gains on AFS equities.

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 2018 Annual Report. The shaded 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”. Accordingly, the following shaded 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 2018 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 on 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 2019 to 2039.

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) | March 31, 2019 | | | December 31, 2018 | | |
|---|------------------|------------------|-----------------------------------|-------------------|------------------|-----------------------------------|
| | Guarantee value | Fund value | Amount at risk ^{(4),(5)} | Guarantee value | Fund value | Amount at risk ^{(4),(5)} |
| Guaranteed minimum income benefit | \$ 5,059 | \$ 3,860 | \$ 1,224 | \$ 5,264 | \$ 3,675 | \$ 1,593 |
| Guaranteed minimum withdrawal benefit | 58,437 | 50,552 | 8,192 | 60,494 | 49,214 | 11,388 |
| Guaranteed minimum accumulation benefit | 18,287 | 18,637 | 16 | 18,611 | 18,720 | 141 |
| Gross living benefits ⁽¹⁾ | 81,783 | 73,049 | 9,432 | 84,369 | 71,609 | 13,122 |
| Gross death benefits ^{(2),(3)} | 10,221 | 16,548 | 982 | 10,663 | 14,654 | 1,567 |
| Total gross of reinsurance | 92,004 | 89,597 | 10,414 | 95,032 | 86,263 | 14,689 |
| Living benefits reinsured | 4,343 | 3,337 | 1,023 | 4,515 | 3,173 | 1,343 |
| Death benefits reinsured | 2,249 | 2,161 | 382 | 2,353 | 2,070 | 493 |
| Total reinsured | 6,592 | 5,498 | 1,405 | 6,868 | 5,243 | 1,836 |
| Total, net of reinsurance | \$ 85,412 | \$ 84,099 | \$ 9,009 | \$ 88,164 | \$ 81,020 | \$ 12,853 |

- (1) 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 3.
- (2) Contracts with guaranteed long-term care benefits are included in this category.
- (3) Death benefits include stand-alone guarantees and guarantees in excess of living benefit guarantees where both death and living benefits are provided on a policy.
- (4) 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. This amount is not currently payable. 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. For guaranteed minimum income benefit, the amount at risk is defined as the excess of the current annuitization income base over the current account value. For all guarantees, the amount at risk is floored at zero at the single contract level.
- (5) The amount at risk net of reinsurance at March 31, 2019 was \$9,009 million (December 31, 2018 – \$12,853 million) of which: US\$5,100 million (December 31, 2018 – US\$6,899 million) was on our U.S. business, \$1,699 million (December 31, 2018 – \$2,654 million) was on our Canadian business, US\$185 million (December 31, 2018 – US\$332 million) was on our Japan business and US\$186 million (December 31, 2018 – US\$246 million) was related to Asia (other than Japan) and our run-off reinsurance business.

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 ML'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 2018 Annual Report, our macro hedging strategy is designed to mitigate public equity risk arising from variable annuity guarantees not dynamically hedged and from other products and fees. In addition, 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 (see pages 42 and 43 of our 2018 Annual Report).

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 D2 "Sensitivity of policy liabilities 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 hedging program 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 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 March 31, 2019 (\$ millions) | -30% | -20% | -10% | 10% | 20% | 30% |
|--|-------------------|-------------------|-----------------|---------------|-----------------|-----------------|
| Underlying sensitivity to net income attributed to shareholders⁽⁴⁾ | | | | | | |
| Variable annuity guarantees | \$ (3,800) | \$ (2,280) | \$ (1,040) | \$ 810 | \$ 1,400 | \$ 1,820 |
| Asset based fees (annualized) | (540) | (360) | (180) | 180 | 360 | 540 |
| General fund equity investments ⁽⁵⁾ | (1,120) | (730) | (330) | 300 | 610 | 910 |
| Total underlying sensitivity before hedging | (5,460) | (3,370) | (1,550) | 1,290 | 2,370 | 3,270 |
| Impact of macro and dynamic hedge assets ⁽⁶⁾ | 3,200 | 1,930 | 860 | (730) | (1,290) | (1,700) |
| Net potential impact on net income attributed to shareholders after impact of hedging | \$ (2,260) | \$ (1,440) | \$ (690) | \$ 560 | \$ 1,080 | \$ 1,570 |
| As at December 31, 2018 (\$ millions) | | | | | | |
| Underlying sensitivity to net income attributed to shareholders⁽⁴⁾ | | | | | | |
| Variable annuity guarantees | \$ (3,650) | \$ (2,240) | \$ (1,040) | \$ 890 | \$ 1,610 | \$ 2,170 |
| Asset based fees (annualized) | (480) | (320) | (160) | 160 | 320 | 480 |
| General fund equity investments ⁽⁵⁾ | (1,150) | (780) | (390) | 290 | 580 | 860 |
| Total underlying sensitivity before hedging | (5,280) | (3,340) | (1,590) | 1,340 | 2,510 | 3,510 |
| Impact of macro and dynamic hedge assets ⁽⁶⁾ | 3,110 | 1,940 | 910 | (820) | (1,450) | (1,930) |
| Net potential impact on net income attributed to shareholders after impact of hedging | \$ (2,170) | \$ (1,400) | \$ (680) | \$ 520 | \$ 1,060 | \$ 1,580 |

⁽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.

⁽³⁾ Please refer to section D2 "Sensitivity of policy liabilities 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 equities is calculated as at a point-in-time and 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 return for policy liability valuation^{(1),(2),(3)}

| Percentage points | Impact on MLI's LICAT total ratio | | | | | |
|-----------------------|-----------------------------------|------------|------------|----------|----------|----------|
| | -30% | -20% | -10% | 10% | 20% | 30% |
| March 31, 2019 | (5) | (3) | (2) | 1 | 6 | 7 |
| December 31, 2018 | (6) | (4) | (2) | 1 | 5 | 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 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 March 31, 2019, we estimated the sensitivity of our net income attributed to shareholders to a 50 basis point parallel decline in interest rates to be a charge of \$200 million, and to a 50 basis point increase in interest rates to be a benefit of \$200 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, while our interest rate hedges are valued using current market interest rates. 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 potential impact on net income attributed to shareholders does not take into account any future potential changes to our ultimate reinvestment rate assumptions or calibration criteria for stochastic risk-free rates or 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 crystallize 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. Rising interest rates could negatively impact the value of our ALDA (see “Critical Actuarial and Accounting Policies – Fair Value of Invested Assets”, on page 65 of our 2018 Annual Report). More information on ALDA can be found in 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 | March 31, 2019 | | December 31, 2018 | |
|---|----------------|---------|-------------------|---------|
| | -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 | \$ (200) | \$ 200 | \$ (100) | \$ 100 |
| From fair value changes in AFS fixed income assets held in the Corporate and Other segment, if realized | 1,600 | (1,500) | 1,600 | (1,500) |
| MLI's LICAT total ratio (Percentage points) | | | | |
| LICAT total ratio change in percentage points ⁽⁵⁾ | 3 | (3) | 3 | (3) |

(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) Includes all LICAT impacts, including realized and unrealized fair value changes in AFS fixed income assets.

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^{(1),(2),(3)}

| Corporate spreads ^{(4),(5)} | | March 31, 2019 | | December 31, 2018 | |
|---|--|----------------|--------|-------------------|--------|
| As at | | -50bp | +50bp | -50bp | +50bp |
| Net income attributed to shareholders (\$ millions) | | \$ (700) | \$ 700 | \$ (600) | \$ 600 |
| MLI's LICAT total ratio (change percentage points) ⁽⁶⁾ | | (5) | 6 | (5) | 5 |

| Swap spreads | | March 31, 2019 | | December 31, 2018 | |
|---|--|----------------|----------|-------------------|----------|
| As at | | -20bp | +20bp | -20bp | +20bp |
| Net income attributed to shareholders (\$ millions) | | \$ 100 | \$ (100) | \$ 100 | \$ (100) |
| MLI's LICAT total ratio (change percentage points) ⁽⁶⁾ | | 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) Includes all LICAT impacts, including 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).

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 D2 “Sensitivity of policy liabilities 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, oil and gas direct holdings, and private equities, some of which relate to oil and gas.

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

| As at (\$ millions) | March 31, 2019 | | December 31, 2018 | |
|--|-------------------|-----------------|-------------------|-----------------|
| | -10% | +10% | -10% | +10% |
| Real estate, agriculture and timber assets | \$ (1,200) | \$ 1,200 | \$ (1,300) | \$ 1,200 |
| Private equities and other ALDA | (1,600) | 1,600 | (1,600) | 1,600 |
| Alternative long-duration assets | \$ (2,800) | \$ 2,800 | \$ (2,900) | \$ 2,800 |

(1) See “Caution Related to Sensitivities” above.

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

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

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

(5) Please refer to section D2 “Sensitivity of policy liabilities 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 business are reflected in the sensitivities when the changes take place.

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, 2018. The critical accounting policies and the 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 58 to 69 of our 2018 Annual Report.

D2 Sensitivity of policy liabilities 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 updates to 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 income 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 | | | |
|--|--|----------|-------------------|----------|
| | March 31, 2019 | | December 31, 2018 | |
| Asset related assumptions updated periodically in valuation basis changes | Increase | Decrease | Increase | Decrease |
| 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⁾ | 3,600 | (4,000) | 3,500 | (3,900) |
| 100 basis point change in equity volatility assumption for stochastic segregated fund modelling ⁽³⁾ | (300) | 300 | (300) | 300 |

⁽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 March 31, 2019, the growth rates inclusive of dividends in the major markets used in the stochastic valuation models for valuing segregated fund guarantees are 9.3% 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 includes commercial real estate, timber, farmland, direct oil and gas properties, 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. Over a 20-year horizon, our best estimate return assumptions range between 5.25% and 11.65%, with an average of 9.5% based on the current asset mix backing our guaranteed insurance and annuity business as of March 31, 2019, adjusted to reflect our decision to reduce the allocation to ALDA in the portfolio asset mix supporting our North American legacy businesses. 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 6.3% based on the asset mix backing our guaranteed insurance and annuity business as of March 31, 2019, adjusted to reflect our decision to reduce the allocation to ALDA in the portfolio asset mix supporting our North American legacy businesses.

⁽³⁾ Volatility assumptions for public equities are based on long-term historical observed experience and compliance with actuarial standards. The resulting volatility assumptions are 16.95% per annum in Canada and 17.15% per annum in the U.S. for large-cap public equities, and 19.25% per annum in Japan. For European equity funds, the volatility varies between 16.5% and 18.4%.

D3 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 months ended March 31, 2019.

E OTHER

E1 Outstanding shares – selected information

Common shares

As at April 25, 2019 MFC had 1,968,394,229 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 the unaudited Interim Consolidated Financial Statements for the three months ended March 31, 2019.

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 ROE; diluted core earnings per common share; core earnings before income taxes, depreciation and amortization ("core EBITDA"); core EBITDA margin; core investment gains, constant exchange rate basis (measures that are reported on a constant exchange rate basis include percentage growth/decline in core earnings, sales, APE sales, gross flows, core EBITDA, new business value ("NBV"), new business value margin, assets under management, and assets under management and administration ("AUMA")); assets under administration; expense efficiency ratio; assets under management and administration; assets under management; consolidated capital; embedded value; new business value; new business value margin; sales; APE sales; gross flows; and net flows. 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 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 2018 was \$493 million (2012 to the end of 2017 was \$475 million).
 - The decision announced on December 22, 2017 to reduce the allocation to ALDA in the portfolio asset mix supporting our legacy businesses was the first strategic asset mix change since we introduced the core earnings metric in 2012. We refined our description of investment-related experience in 2017 to note that asset mix changes other than those related to a strategic change are taken into consideration in the investment-related experience component of core investment gains.

- While historical investment return time horizons may vary in length based on underlying asset classes generally exceeding 20 years, for purposes of establishing the threshold, we look at a business cycle that is five or more years and includes a recession. We monitor the appropriateness of the threshold as part of our annual five-year planning process and would adjust it, either to a higher or lower amount, in the future if we believed that our threshold was no longer appropriate.
 - Specific criteria used for evaluating a potential adjustment to the threshold may include, but are not limited to, the extent to which actual investment-related experience differs materially from actuarial assumptions used in measuring insurance contract liabilities, material market events, material dispositions or acquisitions of assets, and regulatory or accounting changes.
7. Earnings on surplus other than mark-to-market items. Gains on available-for-sale (“AFS”) equities and seed money investments included in new 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 above, 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. 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 | | | | | | | |
|---|-------------------|---------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|
| | 1Q19 | 4Q18 | 3Q18 | 2Q18 | 1Q18 | 4Q17 | 3Q17 | 2Q17 |
| Core earnings (loss) | | | | | | | | |
| Asia | \$ 520 | \$ 463 | \$ 461 | \$ 411 | \$ 431 | \$ 372 | \$ 374 | \$ 350 |
| Canada | 283 | 305 | 344 | 395 | 283 | 273 | 403 | 278 |
| U.S. | 475 | 454 | 467 | 446 | 422 | 463 | 346 | 359 |
| Global Wealth and Asset Management | 233 | 231 | 288 | 239 | 227 | 198 | 216 | 214 |
| Corporate and Other (excluding core investment gains) | (63) | (216) | (121) | (164) | (156) | (201) | (354) | (181) |
| Core investment gains | 100 | 100 | 100 | 104 | 96 | 100 | 100 | 154 |
| Total core earnings | 1,548 | 1,337 | 1,539 | 1,431 | 1,303 | 1,205 | 1,085 | 1,174 |
| Items to reconcile core earnings (loss) to net income (loss) attributed to shareholders: | | | | | | | | |
| Investment-related experience outside of core earnings | 327 | (130) | 312 | 18 | - | 18 | 11 | 138 |
| Direct impact of equity markets and interest rates and variable annuity guarantee liabilities | 249 | (675) | (277) | 45 | 50 | (68) | 47 | (37) |
| Change in actuarial methods and assumptions | - | - | (51) | - | - | (33) | (2) | - |
| Charge related to decision to change portfolio asset mix supporting our legacy businesses | - | - | - | - | - | (1,032) | - | - |
| Impact related to U.S. Tax Reform | - | - | 124 | - | - | (1,777) | - | - |
| Restructuring charge | - | (63) | - | (200) | - | - | - | - |
| Reinsurance transactions and other | 52 | 124 | (74) | (32) | 19 | 81 | (36) | (20) |
| Net income (loss) attributed to shareholders | \$ 2,176 | \$ 593 | \$ 1,573 | \$ 1,262 | \$ 1,372 | \$(1,606) | \$ 1,105 | \$ 1,255 |

Asia

| (\$ millions, unaudited) | Quarterly Results | | | | | | | |
|---|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 1Q19 | 4Q18 | 3Q18 | 2Q18 | 1Q18 | 4Q17 | 3Q17 | 2Q17 |
| Asia core earnings⁽¹⁾ | \$ 520 | \$ 463 | \$ 461 | \$ 411 | \$ 431 | \$ 372 | \$ 374 | \$ 350 |
| Items to reconcile core earnings (loss) to net income (loss) attributed to shareholders: | | | | | | | | |
| Investment-related experience outside of core earnings | 116 | 99 | 91 | 46 | 48 | 62 | 48 | 62 |
| Direct impact of equity markets and interest rates and variable annuity guarantee liabilities | 59 | (244) | (18) | (86) | (27) | (140) | (62) | 96 |
| Change in actuarial methods and assumptions | - | - | 27 | - | - | 5 | 161 | - |
| Reinsurance transactions and other | - | - | 5 | (3) | - | (39) | - | - |
| Net income (loss) attributed to shareholders⁽¹⁾ | \$ 695 | \$ 318 | \$ 566 | \$ 368 | \$ 452 | \$ 260 | \$ 521 | \$ 508 |

⁽¹⁾ 2018 core earnings and net income (loss) attributed to shareholders have been updated to reflect the 2019 methodology for allocating capital and interest on surplus to our insurance segments from the Corporate and Other segment.

Canada

| (\$ millions, unaudited) | Quarterly Results | | | | | | | |
|---|-------------------|---------|--------|--------|--------|---------|--------|--------|
| | 1Q19 | 4Q18 | 3Q18 | 2Q18 | 1Q18 | 4Q17 | 3Q17 | 2Q17 |
| Canada core earnings⁽¹⁾ | \$ 283 | \$ 305 | \$ 344 | \$ 395 | \$ 283 | \$ 273 | \$ 403 | \$ 278 |
| Items to reconcile core earnings (loss) to net income (loss) attributed to shareholders: | | | | | | | | |
| Investment-related experience outside of core earnings | 453 | (143) | 155 | 83 | 145 | 76 | (125) | (12) |
| Direct impact of equity markets and interest rates and variable annuity guarantee liabilities | 11 | (234) | (26) | 13 | (60) | (21) | 115 | (238) |
| Change in actuarial methods and assumptions | - | - | (370) | - | - | (7) | 43 | - |
| Charge related to decision to change portfolio asset mix supporting our legacy businesses | - | - | - | - | - | (343) | - | - |
| Charge related to U.S. Tax Reform | - | - | (2) | - | - | - | - | - |
| Reinsurance transactions and other | 4 | (2) | 1 | 11 | 84 | (7) | (4) | (5) |
| Net income (loss) attributed to shareholders⁽¹⁾ | \$ 751 | \$ (74) | \$ 102 | \$ 502 | \$ 452 | \$ (29) | \$ 432 | \$ 23 |

⁽¹⁾ 2018 core earnings and net income (loss) attributed to shareholders have been updated to reflect the 2019 methodology for allocating capital and interest on surplus to our insurance segments from the Corporate and Other segment.

U.S.

| (\$ millions, unaudited) | Quarterly Results | | | | | | | |
|---|-------------------|--------|--------|--------|--------|------------|--------|--------|
| | 1Q19 | 4Q18 | 3Q18 | 2Q18 | 1Q18 | 4Q17 | 3Q17 | 2Q17 |
| U.S. core earnings⁽¹⁾ | \$ 475 | \$ 454 | \$ 467 | \$ 446 | \$ 422 | \$ 463 | \$ 346 | \$ 359 |
| Items to reconcile core earnings (loss) to net income (loss) attributed to shareholders: | | | | | | | | |
| Investment-related experience outside of core earnings | (143) | 15 | 162 | (59) | (101) | (33) | 181 | 164 |
| Direct impact of equity markets and interest rates and variable annuity guarantee liabilities | 61 | (95) | (204) | 267 | 268 | 75 | 50 | 159 |
| Change in actuarial methods and assumptions | - | - | 286 | - | - | (31) | (214) | - |
| Charge related to decision to change portfolio asset mix supporting our legacy businesses | - | - | - | - | - | (689) | - | - |
| Charge related to U.S. Tax Reform | - | - | (7) | - | - | (2,822) | - | - |
| Reinsurance transactions and other | 48 | 139 | (74) | (34) | (61) | 139 | (41) | - |
| Net income (loss) attributed to shareholders⁽¹⁾ | \$ 441 | \$ 513 | \$ 630 | \$ 620 | \$ 528 | \$ (2,898) | \$ 322 | \$ 682 |

⁽¹⁾ 2018 core earnings and net income (loss) attributed to shareholders have been updated to reflect the 2019 methodology for allocating capital and interest on surplus to our insurance segments from the Corporate and Other segment.

Global Wealth and Asset Management

| (\$ millions, unaudited) | Quarterly Results | | | | | | | |
|--|-------------------|--------|--------|--------|--------|--------|--------|--------|
| | 1Q19 | 4Q18 | 3Q18 | 2Q18 | 1Q18 | 4Q17 | 3Q17 | 2Q17 |
| Global WAM core earnings | \$ 233 | \$ 231 | \$ 288 | \$ 239 | \$ 227 | \$ 198 | \$ 216 | \$ 214 |
| Items to reconcile core earnings (loss) to net income (loss) attributed to shareholders: | | | | | | | | |
| Impact related to U.S. Tax Reform | - | - | (2) | - | - | 308 | - | - |
| Other | - | (13) | (6) | (6) | (4) | (10) | (10) | (13) |
| Net income (loss) attributed to shareholders | \$ 233 | \$ 218 | \$ 280 | \$ 233 | \$ 223 | \$ 496 | \$ 206 | \$ 201 |

Corporate and Other

| (\$ millions, unaudited) | Quarterly Results | | | | | | | |
|--|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 1Q19 | 4Q18 | 3Q18 | 2Q18 | 1Q18 | 4Q17 | 3Q17 | 2Q17 |
| Corporate and Other core income (loss) (excluding core investment gains)⁽¹⁾ | \$ (63) | \$ (216) | \$ (121) | \$ (164) | \$ (156) | \$ (201) | \$ (354) | \$ (181) |
| Core investment gains (loss) | 100 | 100 | 100 | 104 | 96 | 100 | 100 | 154 |
| Total core earnings (loss) | 37 | (116) | (21) | (60) | (60) | (101) | (254) | (27) |
| Other items to reconcile core earnings (loss) to net income (loss) attributed to shareholders: | | | | | | | | |
| Investment-related experience outside of core earnings | (99) | (101) | (96) | (52) | (92) | (87) | (92) | (79) |
| Direct impact of equity markets and interest rates | 118 | (102) | (29) | (149) | (131) | 17 | (56) | (53) |
| Changes in actuarial methods and assumptions | - | - | 6 | - | - | - | 8 | - |
| Impact related to U.S. Tax Reform | - | - | 135 | - | - | 737 | - | - |
| Restructuring charge | - | (63) | - | (200) | - | - | - | - |
| Other | - | - | - | - | - | (1) | 18 | - |
| Net income (loss) attributed to shareholders⁽¹⁾ | \$ 56 | \$ (382) | \$ (5) | \$ (461) | \$ (283) | \$ 565 | \$ (376) | \$ (159) |

⁽¹⁾ The Corporate and Other segment includes earnings on assets backing capital net of amounts allocated to operating segments. 2018 core income (loss) (excluding core investment gains) and net income (loss) attributed to shareholders have been updated to reflect the 2019 methodology for allocating capital and interest on surplus to our insurance segments from the Corporate and Other segment.

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 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 1Q19. Measures that are reported on a constant exchange rate basis include growth in core earnings, sales, APE sales, gross flows, core EBITDA, new business value, new business value margin, assets under management, and assets under management and administration.

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) | March 31, 2019 | December 31, 2018 | March 31, 2018 |
|--|---------------------|---------------------|---------------------|
| Total invested assets | \$ 359,458 | \$ 353,664 | \$ 342,389 |
| Segregated funds net assets | 334,425 | 313,209 | 326,011 |
| Assets under management per financial statements | 693,883 | 666,873 | 668,400 |
| Mutual funds | 194,227 | 182,219 | 197,854 |
| Institutional advisory accounts (excluding segregated funds) | 103,713 | 102,323 | 98,275 |
| Other funds | 8,488 | 7,658 | 7,247 |
| Total assets under management | 1,000,311 | 959,073 | 971,776 |
| Other assets under administration | 134,201 | 124,449 | 126,271 |
| Currency impact | - | (15,917) | 24,318 |
| AUMA at constant exchange rates | \$ 1,134,512 | \$ 1,067,605 | \$ 1,122,365 |

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) | March 31, 2019 | December 31, 2018 | March 31, 2018 |
|------------------------------------|-------------------|----------------------|-------------------|
| Total equity | \$ 48,994 | \$ 47,151 | \$ 44,089 |
| Add AOCI loss on cash flow hedges | 146 | 127 | 146 |
| Add qualifying capital instruments | 8,185 | 8,732 | 8,275 |
| Consolidated capital | \$ 57,325 | \$ 56,010 | \$ 52,510 |

Core EBITDA is a non-GAAP measure which Manulife uses to better understand the long-term earnings capacity and valuation of the 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 life time 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 | | | | | | | |
|---|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 1Q19 | 4Q18 | 3Q18 | 2Q18 | 1Q18 | 4Q17 | 3Q17 | 2Q17 |
| Core EBITDA | \$ 366 | \$ 362 | \$ 405 | \$ 370 | \$ 360 | \$ 355 | \$ 352 | \$ 377 |
| Amortization of deferred acquisition costs and other depreciation | 76 | 77 | 76 | 75 | 73 | 87 | 84 | 88 |
| Amortization of deferred sales commissions | 23 | 22 | 23 | 24 | 29 | 25 | 23 | 23 |
| Core earnings before income taxes | 267 | 263 | 306 | 271 | 258 | 243 | 245 | 266 |
| Core income tax (expense) recovery | (34) | (32) | (18) | (32) | (31) | (45) | (29) | (52) |
| Core earnings | \$ 233 | \$ 231 | \$ 288 | \$ 239 | \$ 227 | \$ 198 | \$ 216 | \$ 214 |

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 divided by the sum of pre-tax core earnings and pre-tax general expenses included in core earnings.

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 excludes our Global WAM, Manulife Bank and Property and Casualty Reinsurance businesses.

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 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. The 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.

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 Canadian Actuarial Standards Board’s final standard expected to be issued in the third quarter of 2019 and its impact on net income attributed to shareholders; 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); 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 Management", "Risk Factors" and "Critical Actuarial and Accounting Policies" in the Management's Discussion and Analysis in our most recent annual report and, in the "Risk Management" note to the consolidated financial statements in our most recent annual and interim reports and elsewhere in our filings with Canadian and U.S. securities regulators.

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

E5 Quarterly financial information

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

| As at and for the three months ended (\$ millions, except per share amounts or otherwise stated, unaudited) | Mar 31, 2019 | Dec 31, 2018 | Sept 30, 2018 | Jun 30, 2018 | Mar 31, 2018 | Dec 31, 2017 | Sept 30, 2017 | Jun 30, 2017 |
|--|------------------|-----------------|------------------|------------------|-----------------|-------------------|------------------|------------------|
| Revenue | | | | | | | | |
| Premium income | | | | | | | | |
| Life and health insurance | \$ 8,077 | \$ 7,724 | \$ 7,700 | \$ 7,628 | \$ 7,300 | \$ 6,000 | \$ 6,321 | \$ 6,040 |
| Annuities and pensions ⁽¹⁾ | 237 | (5,892) | (2,599) | 1,126 | 1,025 | 943 | 922 | 934 |
| Net premium income | 8,314 | 1,832 | 5,101 | 8,754 | 8,325 | 6,943 | 7,243 | 6,974 |
| Investment income | 3,747 | 3,278 | 3,481 | 3,566 | 3,235 | 3,579 | 3,309 | 3,444 |
| Realized and unrealized gains and losses on assets supporting insurance and investment contract liabilities ⁽²⁾ | 8,926 | 1,113 | (3,210) | (1,615) | (5,316) | 2,988 | (1,163) | 3,303 |
| Other revenue | 2,562 | 2,291 | 2,671 | 2,964 | 2,502 | 2,737 | 2,544 | 2,872 |
| Total revenue | \$ 23,549 | \$ 8,514 | \$ 8,043 | \$ 13,669 | \$ 8,746 | \$ 16,247 | \$ 11,933 | \$ 16,593 |
| Income (loss) before income taxes | \$ 2,524 | \$ 359 | \$ 1,911 | \$ 1,535 | \$ 1,714 | \$ (2,123) | \$ 1,269 | \$ 1,618 |
| Income tax (expense) recovery | (289) | (43) | (6) | (246) | (337) | 424 | (13) | (304) |
| Net income (loss) | \$ 2,235 | \$ 316 | \$ 1,905 | \$ 1,289 | \$ 1,377 | \$ (1,699) | \$ 1,256 | \$ 1,314 |
| Net income (loss) attributed to shareholders | \$ 2,176 | \$ 593 | \$ 1,573 | \$ 1,262 | \$ 1,372 | \$ (1,606) | \$ 1,105 | \$ 1,255 |
| Reconciliation of core earnings to net income attributed to shareholders | | | | | | | | |
| Total core earnings ⁽³⁾ | \$ 1,548 | \$ 1,337 | \$ 1,539 | \$ 1,431 | \$ 1,303 | \$ 1,205 | \$ 1,085 | \$ 1,174 |
| Other items to reconcile net income attributed to shareholders to core earnings ⁽⁴⁾ : | | | | | | | | |
| Investment-related experience outside of core earnings | 327 | (130) | 312 | 18 | - | 18 | 11 | 138 |
| Direct impact of equity markets, interest rates and variable annuity guarantee liabilities | 249 | (675) | (277) | 45 | 50 | (68) | 47 | (37) |
| Change in actuarial methods and assumptions | - | - | (51) | - | - | (33) | (2) | - |
| Charge related to decision to change portfolio asset mix supporting our legacy businesses | - | - | - | - | - | (1,032) | - | - |
| Charge related to U.S. Tax Reform | - | - | 124 | - | - | (1,777) | - | - |
| Restructuring charges | - | (63) | - | (200) | - | - | - | - |
| Reinsurance transactions and other | 52 | 124 | (74) | (32) | 19 | 81 | (36) | (20) |
| Net income (loss) attributed to shareholders | \$ 2,176 | \$ 593 | \$ 1,573 | \$ 1,262 | \$ 1,372 | \$ (1,606) | \$ 1,105 | \$ 1,255 |
| Basic earnings (loss) per common share | \$ 1.09 | \$ 0.28 | \$ 0.77 | \$ 0.61 | \$ 0.67 | \$ (0.83) | \$ 0.54 | \$ 0.62 |
| Diluted earnings (loss) per common share | \$ 1.08 | \$ 0.28 | \$ 0.77 | \$ 0.61 | \$ 0.67 | \$ (0.83) | \$ 0.54 | \$ 0.61 |
| Segregated funds deposits | \$ 10,586 | \$ 9,212 | \$ 9,424 | \$ 9,872 | \$ 9,728 | \$ 8,421 | \$ 8,179 | \$ 8,544 |
| Total assets (in billions) | \$ 780 | \$ 750 | \$ 748 | \$ 752 | \$ 740 | \$ 730 | \$ 713 | \$ 726 |
| Weighted average common shares (in millions) | 1,965 | 1,980 | 1,984 | 1,984 | 1,983 | 1,980 | 1,978 | 1,977 |
| Diluted weighted average common shares (in millions) | 1,969 | 1,983 | 1,989 | 1,989 | 1,989 | 1,988 | 1,986 | 1,984 |
| Dividends per common share | \$ 0.250 | \$ 0.250 | \$ 0.220 | \$ 0.220 | \$ 0.220 | \$ 0.205 | \$ 0.205 | \$ 0.205 |
| CDN\$ to US\$1 - Statement of Financial Position | 1.3363 | 1.3642 | 1.2945 | 1.3168 | 1.2894 | 1.2545 | 1.2480 | 1.2977 |
| CDN\$ to US\$1 - Statement of Income | 1.3295 | 1.3204 | 1.3069 | 1.2912 | 1.2647 | 1.2712 | 1.2528 | 1.3450 |

(1) Includes ceded premiums related to the reinsurance of a block of our legacy U.S. individual payout annuities of US\$0.5 billion in 1Q19, US\$5.3 billion in 4Q18 and US\$2.8 billion in 3Q18.

(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 and 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 "Q1 earnings analysis" 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 attributed to shareholders to core earnings.

E6 Other

No changes were made in our internal control over financial reporting during the three months ended March 31, 2019, 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.