

# A conceptual overview of Manulife's adoption of IFRS 17 and IFRS 9

**May 10, 2023**

*Note: The application of IFRS 17 and IFRS 9 involves significant changes compared with IFRS 4. This presentation intends to provide a simplified education of the key changes and the implications on our financial results, and is not comprehensive or exhaustive*



# Caution regarding *forward-looking* statements

From time to time, Manulife makes written and/or oral forward-looking statements, including in this presentation. 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 presentation include, but are not limited to, statements with respect to the expected improved stability of Manulife’s core earnings, net income attributed to shareholders (“net income”), book value and capital (LICAT ratio) under IFRS 17; the impact on net income attributed to shareholders resulting from the application of IFRS 9 hedge accounting; and the stability of expected credit losses in most market conditions; and also relate to, among other things, our objectives, goals, strategies, intentions, plans, beliefs, expectations and estimates, and can generally be identified by the use of words such as “may”, “will”, “could”, “should”, “would”, “likely”, “suspect”, “outlook”, “expect”, “intend”, “estimate”, “anticipate”, “believe”, “plan”, “forecast”, “objective”, “seek”, “aim”, “continue”, “goal”, “restore”, “embark” and “endeavour” (or the negative thereof) and words and expressions of similar import, and include statements concerning possible or assumed future results. Although we believe that the expectations reflected in such forward-looking statements are reasonable, such statements involve risks and uncertainties, and undue reliance should not be placed on such statements and they should not be interpreted as confirming market or analysts’ expectations in any way.

Certain material factors or assumptions are applied in making forward-looking statements and actual results may differ materially from those expressed or implied in such statements. Important factors that could cause actual results to differ materially from expectations include but are not limited to: general business and economic conditions (including but not limited to the performance, volatility and correlation of equity markets, interest rates, credit and swap spreads, currency rates, investment losses and defaults, market liquidity and creditworthiness of guarantors, reinsurers and counterparties); the ongoing prevalence of COVID-19, including any variants, as well as actions that have been, or may be taken by governmental authorities in response to COVID-19, including the impact of any variants; changes in laws and regulations; changes in accounting standards applicable in any of the territories in which we operate; changes in regulatory capital requirements applicable in any of the territories in which we operate; 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 or divestitures, and our ability to complete transactions; 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 the Management’s Discussion and Analysis in our most recent interim report under “Risk Management and Risk Factors Update” and “Critical Actuarial and Accounting Policies”, under “Risk Management and Risk Factors” and “Critical Actuarial and Accounting Policies”, in the Management’s Discussion and Analysis in our most recent annual report and, in the “Risk Management” note to the consolidated financial statements in our most recent annual and interim reports and elsewhere in our filings with Canadian and U.S. securities regulators. The forward-looking statements in this presentation 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.

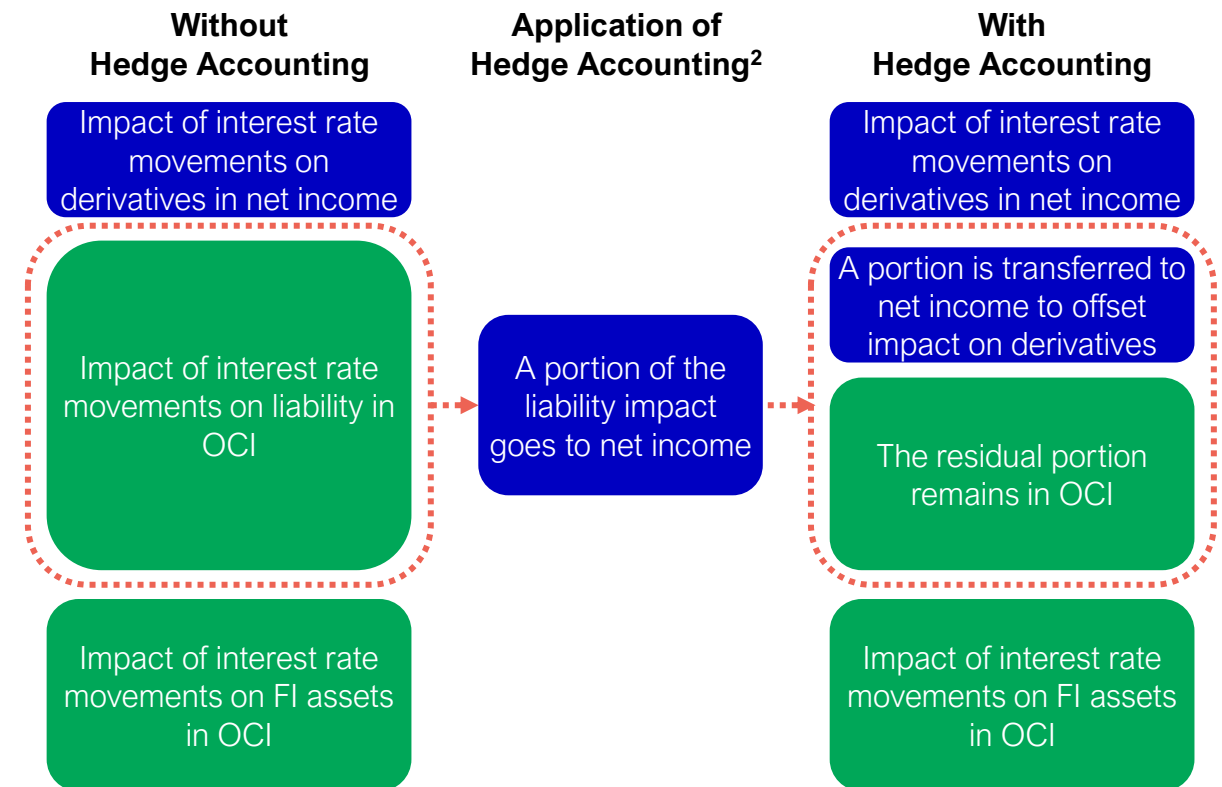
# *IFRS 17/9 do not impact the fundamental economics of our business, and are expected to improve the stability of earnings, book value and capital*

- IFRS 17/9 **do not impact the fundamental economics of our business**. They impact where, when and how specific items are recognized on the financial statements
- The adoption of IFRS 17/9 is **expected to improve the stability** of Manulife's core earnings<sup>1</sup>, net income, book value and capital (LICAT ratio)
  - New business gains are capitalized in the **Contractual Service Margin (CSM)**<sup>2</sup> and will **emerge into earnings** over the life of the insurance contract
  - Fixed income asset reinvestment activities will be recognized into earnings over the life of the asset
  - **Changes in return assumptions for ALDA & public equities** are no longer recognized immediately in net income at the time of change, going forward they will **flow through core earnings over time**
  - Manulife **elected the Fair Value through Other Comprehensive Income (FVOCI) accounting choice**; as a result, much of the interest rate impacts are recorded in Other Comprehensive Income (OCI)
- **New drivers of earnings (DOE) analysis** is an important tool to understand financial results and replaces the Source of Earnings
- **Core earnings** metric continues under IFRS 17 and **reflects underlying business performance and earnings generation capacity**
- The **CSM**, including the movement analysis, is **a key component of assessing the value of our insurance businesses and our new business generation capacity**

# Fair value through OCI choice *reduces variability* in net income arising from interest rates

- Core earnings and net income attributed to shareholders reflect the **book yield** of assets and liabilities, which is **aligned with the long-term nature of our insurance business**
- The **impact of interest rate movements** on our fixed income (FI) assets and liabilities **is initially recorded directly on the balance sheet, mostly in OCI, and then reflected in core earnings and net income over time**
- Manulife uses derivatives for economic hedging purposes. The mark-to-market on the derivatives is recorded outside of core earnings, in net income (see slide 8 for more detail). Manulife **applies IFRS 9 hedge accounting to align the presentation of interest rate impacts for fixed income assets, liabilities and derivatives**
- However, the application of hedge accounting could result in some noise in net income. We expect this **noise to decrease over time** as we continue to enhance our hedge accounting programs

An illustration of hedge accounting impact with fair value through OCI<sup>1</sup>



<sup>1</sup> The size of the boxes in the illustration above are not to scale and do not represent the magnitude of impacts. <sup>2</sup> Hedge accounting ineffectiveness remains in net income.

**Legend**  
 Net income impact (blue box)  
 OCI impact (green box)



# IFRS 17 is expected to *improve the medium-term stability of core earnings, net income, book value and capital (LICAT ratio)*

IFRS 4 <sup>1</sup> <u>Current period net income</u>	Impact on stability <sup>2</sup> :				IFRS 17 <u>Recognition</u>
	<u>Core earnings</u>	<u>Net income</u>	<u>Book value</u>	<u>LICAT ratio</u>	
New business gains	+	+	+	≈	Recognized in CSM and capital initially and amortized into core earnings over contract life
Insurance experience gains (losses)	+ / -	+ / -	+ / -	≈	Variance in claims (current period) recognized in core earnings and variance in reserves (future impact) recognized in CSM <a href="#">10</a>
Investing activities	+	+	+	+	Recognized in net income and capital over life of asset
Change in insurance assumptions	≈	+	+	≈	Recognized in CSM and capital and amortized into core earnings over contract life, or immediately into net income if no CSM <sup>3</sup>
Change in return assumptions – ALDA & public equities	≈	+	+	+	No longer recognized immediately in net income and capital at the time of change, flows through core earnings over time
Interest rate impacts	≈	+	+	+	Elected fair value through OCI, therefore most of the impact is recorded in OCI and CSM. <sup>4</sup> Capital sensitivity is expected to reduce
Expected credit losses (ECL)	+ / -	+ / -	≈	≈	Recognized in core earnings and offset in OCI for most of our FVOCI assets, reflecting change in macro economic environment <a href="#">11</a>
Other market impacts:					
<ul style="list-style-type: none"> <li>ALDA and public equities</li> <li>Realized gains (losses) on FVOCI fixed income assets</li> <li>Hedge ineffectiveness</li> </ul>	≈	+ / -	+ / -	+ / -	Overall variability from quarter to quarter is expected to be similar in magnitude as under IFRS 4

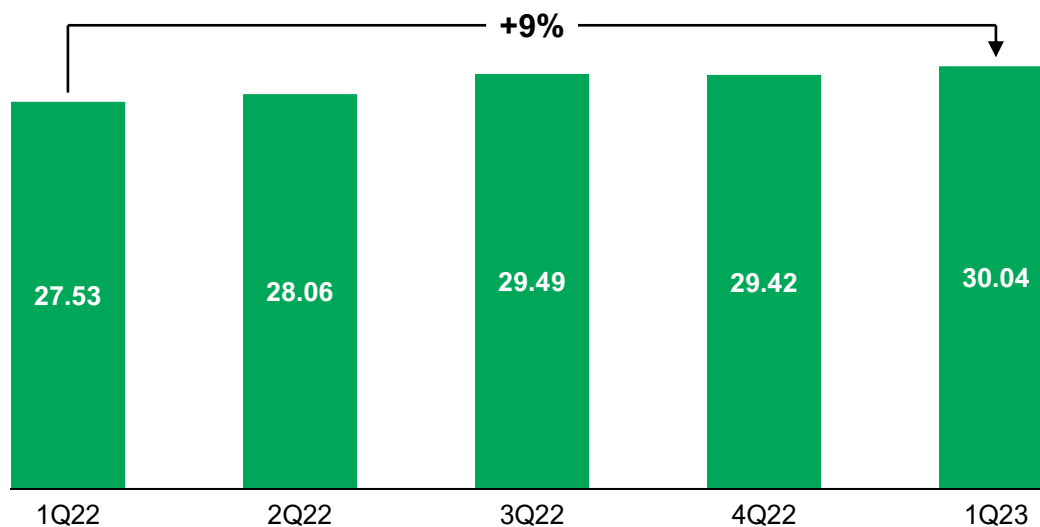
**Legend**   **+** Improved   **-** Decreased   **≈** Similar

Note: See “Caution regarding forward-looking statements” above. <sup>1</sup> This is a simplified view of key components. <sup>2</sup> The impact on stability is directional and there may be variation in the actual results. <sup>3</sup> Change in economic assumptions will be reported through OCI or CSM, depending on the type of contracts. For contracts where the change is recorded in CSM, if there is no CSM, it will be recognized immediately into net income. <sup>4</sup> For some products the impact will flow through the CSM and into earnings if there is no CSM.

# Under IFRS 17, our financial metrics are expected to be *more stable* and *adjusted book value* is an important measure for *monitoring growth* and *measuring insurance businesses' value*

## Adjusted book value per common share<sup>1</sup>

(C\$ per share)



- We expect **adjusted book value per common share to have more stable growth** under IFRS 17 as it better aligns with the economics of our business
- We also expect the **LICAT ratio<sup>2</sup> to be less sensitive** to market movements given the book value is more stable
- Our LICAT ratio as at January 1, 2023 and March 31, 2023 were 136% and 138%, respectively

	1Q22	2Q22	3Q22	4Q22	1Q23
Book value per common share	20.11	20.62	21.78	21.56	22.01
Adjusted book value per common share	27.53	28.06	29.49	29.42	30.04

<sup>1</sup> Adjusted book value per common share is a non-GAAP ratio. Percentage increase/decrease is stated on an actual exchange rate basis. It represents book value per common share plus post-tax CSM net of non-controlling interests (NCI) per common share. See "Non-GAAP and Other Financial Measures" below. <sup>2</sup> Life Insurance Capital Adequacy Test (LICAT) total ratio of The Manufacturers Life Insurance Company (MLI), LICAT ratio is disclosed under OSFI's Life Insurance Capital Adequacy Test Public Disclosure Requirements guideline.

# *Core Drivers of Earnings (DOE) analysis is an important tool to understand our financial results and longer-term earnings generation capacity*

- **Insurance experience gains (losses)** are recorded through core earnings and CSM, see slide [10](#) for more details
- **Core net investment result** reflects expected return on ALDA and public equities, book yields on fixed income assets and liabilities, and ECL [11](#)
- **Core Global WAM and Manulife Bank** results are not significantly impacted
- **Other core earnings** include non-directly attributable expenses and cost of debt financing

**Core earnings is expected to be more stable under IFRS 17/9 as new business gains emerge over time through CSM amortization into core earnings and fixed income asset reinvestment activities will be recognized into earnings over the life of the asset**

## Core DOE analysis

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- Risk adjustment release
- CSM recognized for service provided
- Expected earnings on short-term insurance business
- Impact of new insurance business
- Insurance experience gains (losses)
- Other

### Core net insurance service result

- Expected investment earnings
- Change in expected credit loss
- Expected earnings on surplus
- Other

### Core net investment result

### Core Global Wealth and Asset Management

### Core Manulife Bank

### Other core earnings

### Core income tax (expense) recovery

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## Core earnings

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# *Net income items outside of core earnings* reflect direct impact of markets, realized gains and losses, and hedge ineffectiveness

- **Market experience gains (losses)** include
  1. **Realized gains or losses on fixed income assets** under the FVOCI classification
  2. **Derivatives and hedge ineffectiveness**: see slide [4](#)
  3. **Actual less expected long-term (ELT) returns on public equity and ALDA**: ELT return assumptions are consistent with those under IFRS 4
  4. **Other investment results** includes certain foreign exchange (FX) related impacts that flow through net income
- **Changes in actuarial methods and assumptions that flow directly through income** include
  1. Insurance assumption changes where there is no CSM, including PAA<sup>1</sup> contracts
  2. Economic assumption changes for VFA<sup>1</sup> contracts if CSM balance is exhausted

**Net income is expected to be more stable under IFRS 17 as core earnings is more stable and the impact of interest rate movements is mostly recognized in OCI and CSM**

## **Core DOE analysis (continued)**

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### **Core earnings**

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Realized gains (losses) on fixed income

Derivatives and hedge ineffectiveness

Actual less expected long-term returns on public equity

Actual less expected long-term returns on ALDA

Other investment results

### **Total market experience gains (losses)**

**Changes in actuarial methods and assumptions that flow directly through income**

**Restructuring charge**

**Reinsurance transactions, tax-related items and other**

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### **Items excluded from core earnings**

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**Net income (loss) attributed to shareholders**

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<sup>1</sup> PAA stands for premium allocation approach, and VFA stands for variable fee approach. For more information see appendix slide 13.



# Analysis of *CSM* movement is a key component of assessing *value generation*

- Total CSM movements will flow through core earnings over time
- A **growing CSM** balance will lead to growth of **future earnings**
- **Organic CSM growth** excludes market impacts and certain one-time items that are not representative of long-term growth expectations
  - Organic CSM growth is an **indicative measure of the growth trend** for the CSM
- Total CSM movement could show variability from period to period due to the impact of markets
- **Long term trends** and **organic CSM movements** are more indicative of the **CSM generation capability** of our underlying business

## Changes in Contractual Service Margin (CSM)

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### CSM Opening Balance

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Impact of new insurance business

Expected movements related to finance income or expenses

CSM recognized for service provided

Insurance experience gains (losses) and other

### Organic CSM movement

Changes in actuarial methods and assumptions that adjust the CSM

Effect of movement in exchange rates

Impact of markets

Reinsurance transactions, tax-related items and other

### Inorganic CSM movement

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### Total CSM movement

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### CSM Closing Balance

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# Insurance experience should consider both the impact to *core earnings* and *CSM* under IFRS 17

- Insurance experience is reflected in core earnings (as shown in slide [7](#)) and in the CSM. The **combined impact needs to be taken into consideration in order to understand the full picture**
- Claims experience variances**, which relate to differences in amounts paid versus expected in the current period, are **recognized in core earnings**. This includes items such as differences in death benefits paid, expenses on insurance contracts, disability payments, and long-term care benefit payments in the period
- Experience **variances that relate to future period impacts are recognized in the CSM and will amortize into core earnings over the life of the contracts**. This includes lapse experience and changes in reserves caused by current period experience. Under IFRS 4, these insurance experience items were recognized in core earnings immediately

## Full year 2022 Insurance experience gains (losses) <sup>1</sup>

(C\$ millions, pre-tax)

	Core earnings impact	CSM impact <sup>2</sup>	Total impact
Asia	13	99	112
Canada	2	3	5
U.S.	(327)	257	(70)
<b>Total insurance operating segment<sup>3</sup></b>	<b>(312)</b>	<b>359</b>	<b>47</b>

The figures shown in the table above are not indicative of future insurance experiences. Full year 2022 experience included elevated mortality from the pandemic. In Q1, this elevated mortality led to adverse claims experience loss of \$200 million in U.S. Life. This was partially offset by corresponding reserve releases of \$111 million which impacted the CSM. LTC also had gains of \$95 million from the elevated mortality, all of which impacted the CSM.

<sup>1</sup> Insurance experience includes items such as mortality, morbidity, persistency, and attributable maintenance expense experience. <sup>2</sup> Excludes non-controlling interests. Future period impacts absorbed by the CSM for GMM products may differ from the total future period impact due to differences in discount rates used to measure the CSM vs. the liability. If this occurs, then these differences would be in OCI or net investment results. <sup>3</sup> Insurance experience excludes amounts reported in Corporate and Other segment, which includes P&C Reinsurance and other reinsurance business. In 2022, the core earnings and CSM impacts from insurance experience related to Corporate and Other was \$(260) million and \$32 million, respectively.

# Expected credit losses (*ECL*) is expected to remain relatively *stable* in most market conditions

- **ECL impairment model** applies to debt instruments recorded at amortized cost or at FVOCI. Changes in ECL related to FVOCI assets **does not materially impact shareholders' equity**, as there is an offsetting amount between OCI and net income
- In most market conditions **ECL is expected to remain relatively stable**. For example, despite the deteriorating macro-economic environment across the jurisdictions in which we operate, we experienced modest impacts to core earnings in 2022
- Key drivers of the ECL include rating changes and specific provisions as well as expected changes to macro economic variables including unemployment, equity market performance, real GDP growth, commodity prices and interest rate movements. Under IFRS 9, the impact on equity related to rating changes and specific provisions is expected to be similar to what it was under IFRS 4
- Due to the **high quality** of our **diversified bond portfolio**, 96% is investment grade<sup>1</sup>, and approximately 98% is classified as Stage 1<sup>1,2</sup>

## Impact to core earnings

(C\$ millions, pre-tax)

Q1 2022	20
Q2 2022	(18)
Q3 2022	(6)
Q4 2022	(30)
<b>Full year 2022</b>	<b>(34)</b>
Q1 2023	(141)

Note: See "Caution regarding forward-looking statements" above. <sup>1</sup> As of 1Q23. <sup>2</sup> All financial assets are deemed Stage 1 securities upon purchase and have a 12-month allowance. Assets which experience a significant increase in credit risk after purchase will move to Stage 2 or 3 and increase the amounts held to a lifetime allowance.

# Summary

- IFRS 17/9 **do not impact the fundamental economics of our business**
- **Core earnings** measure isolates market impacts and **aligns with our longer-term earnings generation capacity**
- **Adjusted book value per common share** is an important metric to monitor **growth** and assess **enterprise value**
- The **DOE** and **CSM** movement disclosures will **provide additional insights** on our financial results
- IFRS 17 **improves the stability** of core earnings, net income, book value and LICAT ratio
- Additional reference materials:
  - [May 2023: 2022 comparative results under IFRS 17 and IFRS 9](#)
  - [April 2023: Updated statistical information package template reflecting adoption of IFRS 17 and IFRS 9](#)
  - [May 2022: Impacts of IFRS 17 adoption on Manulife's financial reporting and targets](#)
  - [Apr 2022: Overview of earnings presentation and reporting under the new IFRS 17 accounting standard](#)
  - [Jun 2021: 2021 Investor Day IFRS 17 presentation](#)



# Appendix: Where items are recognized in our financials depends on the IFRS 17 *measurement model*

Measurement model	Description	Applicable businesses	Approx. % of core earnings <sup>1</sup>	Where specific items are recognized			
				Insurance experience gains (losses)	Market experience gains (losses)	Changes in insurance methodology / assumptions	Changes in discount rate methodology / assumptions
<b>General measurement model (GMM)</b>	The basic IFRS 17 measurement model that applies to the majority of insurance contracts	<ul style="list-style-type: none"> <li>Term insurance</li> <li>Whole life incl. Universal Life</li> <li>Health products incl. Critical Illness and Long-Term Care</li> </ul>	~40%	Past and current period impacts in Net Income and future period impacts in CSM <sup>2,3</sup>	Interest Rate: OCI Public Equity & ALDA: Net Income <sup>4</sup>	CSM <sup>2,3</sup>	OCI
<b>Variable fee approach (VFA)</b>	Measurement model for insurance contracts with direct participation features	<ul style="list-style-type: none"> <li>Participating insurance</li> <li>Variable annuities</li> <li>Unit-linked contracts</li> </ul>	~25%	Past and current period impacts in Net Income and future period impacts in CSM <sup>2,5</sup>	Interest Rate: CSM Public Equity & ALDA: CSM <sup>2,5</sup>	CSM <sup>2,5</sup>	CSM <sup>2,5</sup>
<b>Premium allocation approach (PAA)</b>	A simplified measurement model, for short-term insurance contracts	<ul style="list-style-type: none"> <li>Group Benefits</li> <li>Short term health and medical</li> <li>Travel Insurance</li> <li>Property &amp; Casualty reinsurance</li> </ul>	~35% <sup>7</sup>	Net Income <sup>8</sup>	Interest Rate: OCI Public Equity & ALDA: Net Income	Net Income <sup>8</sup>	OCI
<b>Businesses not under IFRS 17</b>	Business that is not in scope of the IFRS 17 Standard	<ul style="list-style-type: none"> <li>Global Wealth and Asset Management businesses<sup>6</sup></li> <li>Manulife Bank</li> </ul>					

<sup>1</sup> Estimated based on 4Q22 results after normalizing Global WAM expenses, rounded to the nearest 5 percent. <sup>2</sup> CSM is adjusted unless the group of insurance contracts is onerous in which case the impact is reported in net income. <sup>3</sup> Future period impacts absorbed by the CSM may differ from the total future period impact due to differences in discount rates used to measure the CSM vs. the liability. If this occurs, then these differences would be in OCI or net investment results. <sup>4</sup> This reflects changes in the present value of future fees and costs of financial guarantees on GMM insurance products where policyholders invest in certain investment accounts. <sup>5</sup> CSM impacts on VFA contracts relate to amounts that are not pass through to policyholders. <sup>6</sup> The capitalization and amortization of acquisition costs have been updated to reflect the requirements of IFRS 9. <sup>7</sup> Represents businesses that are not significantly impacted by IFRS 17. <sup>8</sup> Products measured under PAA do not have a CSM. Experience gains/losses and changes in insurance assumptions are reported in net income.

# Appendix: KPI definitions<sup>1</sup>

		Definition
<b>Profitability</b>	Core EPS growth	Year-over-year core EPS growth
	Core ROE	$\frac{\text{Core earnings} - \text{Preferred dividends} - \text{Other equity distributions}}{\text{Average common shareholders' equity}}$
	Expense efficiency ratio	$\frac{\text{Core expenses}^2}{\text{Core expenses} + \text{Pre-tax core earnings}}$
	Expenditure efficiency ratio	$\frac{\text{Core expenditures}^3}{\text{Core expenditures} + \text{Pre-tax core earnings}}$
<b>Financial strength</b>	Adjusted book value per common share	$\frac{\text{Common shareholders' equity} + \text{Post-tax CSM net of NCI}}{\text{End of period common shares outstanding}}$
	Financial leverage ratio	$\frac{\text{LT debt} + \text{Capital instruments} + \text{Preferred shares}}{\text{LT debt} + \text{Capital instruments} + \text{Total equity} + \text{Post-tax CSM}}$
<b>Growth</b>	New business CSM growth	Year-over-year new business CSM net of NCI <sup>4</sup>
	CSM balance growth	Year-over-year CSM balance net of NCI
	Core earnings from highest potential businesses	$\frac{\text{Core earnings from highest potential businesses}}{\text{Total core earnings}}$
	Core earnings from Asia region (Insurance + WAM)	$\frac{\text{Core earnings from Asia region}}{\text{Total core earnings}}$
<b>Other</b>	Core earnings from LTC and VA	$\frac{\text{Core earnings from LTC} + \text{VA}}{\text{Total core earnings}}$
	Core dividend payout ratio	$\frac{\text{Dividends per common share}}{\text{Core EPS}}$

All growth rates are stated on a constant exchange rate basis.

<sup>1</sup> As emerging industry practice evolves, KPI and KPI definitions may be updated. <sup>2</sup> Core expenses is equal to total expenses that are included in core earnings and excludes such items as material legal provisions for settlements, restructuring charges and expenses related to integration and acquisitions. See "Non-GAAP and Other Financial Measures" in our 1Q23 MD&A for more information on our expense measures. <sup>3</sup> Core expenditures is the sum of core expenses and directly attributable acquisition expenses that are capitalized into the CSM. <sup>4</sup> New business CSM growth is based on the CSM from contracts initially recognized in the period and includes acquisition expense related gains (losses) which impact the CSM during the period. This KPI also excludes the CSM from entering into new in-force reinsurance contracts.

# *Non-GAAP* and Other Financial Measures

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

**Non-GAAP financial measures** include core earnings (loss) and adjusted book value and non-GAAP ratios include adjusted book value per common share. In addition, non-GAAP ratios include the percentage growth in adjusted book value per common share stated on an actual exchange rate ("AER") basis.

Non-GAAP financial measures and non-GAAP ratios are not standardized financial measures under GAAP and, therefore, might not be comparable to similar financial measures disclosed by other s.

For more information on the non-GAAP and other financial measures in this document, see the section "Non-GAAP and Other Financial Measures" in our 1Q23 Management's Discussion and Analysis, which is incorporated by reference and available on SEDAR at [www.sedar.com](http://www.sedar.com).