Sun Life Assurance Company of Canada

Information for Voting Policyholders

Notice of our 2023 annual meeting
2022 Report to Voting Policyholders

Sun Life

Welcome

As a voting policyholder of Sun Life Assurance, you have the right to vote at our annual meeting. As in prior years, voting policyholders will have the opportunity to virtually attend the meeting, ask questions and vote on a number of important matters by way of live webcast at https://web.lumiagm.com/451195677. Subject to ongoing developments related to the COVID-19 pandemic, and being permitted by public health guidelines, the meeting will also be held at Sun Life's head office at 1 York Street (at Harbour Street), 35th floor, Toronto, Ontario, Canada.

This booklet includes the notice of our 2023 annual meeting as well as our 2022 *Report to Voting Policyholders*, which includes information about:

- the business of the meeting (page 7)
- how to vote (page 4)
- policyholder dividends (page 20)
- our financial performance in 2022 (page 24).

This booklet is available on our website at www.sunlife.com/annualmeetingmaterials and on the website of our agent, TSX Trust Company (TSX Trust), at www.meetingdocuments.com/TSXT/sla.

Your vote is important. You can attend the meeting virtually, ask questions and vote in real time by online ballot, attend the meeting and vote in person (subject to ongoing developments related to the COVID-19 pandemic, and being permitted by public health guidelines) or you can complete the policyholder proxy form and have someone vote on your behalf. Please take some time to review this report and contact us if you have any questions.

In this document:

- *we, us, our, the company* and *Sun Life Assurance* mean Sun Life Assurance Company of Canada
- *you, your and policyholder* mean voting policyholders of Sun Life Assurance
- *SLF Inc*. means our sole shareholder, Sun Life Financial Inc., which is a publicly traded company on the Toronto (TSX), New York (NYSE) and Philippine (PSE) stock exchanges under the ticker symbol SLF
- all dollar amounts are in Canadian dollars unless stated otherwise.

Unless otherwise stated, information in this booklet is provided as of February 28, 2023.

Sun Life Assurance Company of Canada

Dear voting policyholder:

You are invited to attend the annual meeting of voting policyholders and the sole shareholder on Thursday, May 11, 2023 at 5:00 p.m. (Toronto time).

As in prior years, voting policyholders will have the opportunity to virtually attend the meeting, ask questions and vote on a number of important matters by way of live webcast at https://web.lumiagm.com/451195677. Subject to ongoing developments related to the COVID-19 pandemic, and being permitted by public health guidelines, the meeting will also be held at Sun Life's head office at 1 York Street (at Harbour Street), 35th floor, Toronto, Ontario, Canada. Voting policyholders are advised to check our website www.sunlife.com/annualmeetingmaterials periodically in advance of the meeting for any updates on in person attendance in light of the COVID-19 pandemic.

This document includes the notice of our 2023 annual meeting and our 2022 Report to Voting Policyholders, which includes important information about the meeting, how to vote, policyholder dividends and our financial performance in 2022.

We will be conducting the annual meeting of the common shareholders of SLF Inc. at the same time. The formal business of each meeting will be conducted separately, however, management's presentation will address policyholders and shareholders.

Your vote is important. If you cannot attend the meeting, please vote by submitting your proxy by mail, internet or telephone by 5:00 p.m. (Toronto time) on Thursday, May 4, 2023, as described on pages 4 to 7.

We look forward to your attendance at this year's meeting.

Scott F. Powers
Chair of the Board

Kevin D. Strain
President & Chief Executive Officer

Si vous désirez recevoir l'avis de convocation à l'assemblée annuelle de 2023 et le rapport 2022 à l'intention des titulaires de contrat ayant droit de vote en français, veuillez communiquer avec le secrétaire en écrivant au 1 York Street, 31st Floor, Toronto (Ontario) Canada M5J 0B6, en composant le 1-877-786-5433, ou en envoyant un courriel à servicesauxactionnaires@sunlife.com.

Notice of our 2023 Annual Meeting

You are invited to our annual meeting of voting policyholders and the sole shareholder of Sun Life Assurance Company of Canada:

When	Thursday, May 11, 2023 at 5:00 p.m. (Toronto time)
Where	**Virtually** Via live webcast online at https://web.lumiagm.com/451195677 Password: "sunlife2023" (case sensitive) **In Person (subject to ongoing developments related to the COVID-19 pandemic and being permitted by public health guidelines)** 1 York Street (at Harbour Street), 35th floor, Toronto, Ontario, Canada Voting policyholders are advised to check our website www.sunlife.com/annualmeetingmaterials periodically in advance of the meeting for any updates on in person attendance in light of the COVID-19 pandemic.

What the meeting will cover

1. Receipt of the 2022 consolidated financial statements
2. Election of the directors
3. Appointment of the auditor
4. Consideration of any other business that may properly be brought before the meeting.

As of March 17, 2023 (the record date), a total of **982,737** votes are eligible to be cast by voting policyholders and **480,779,546** votes are eligible to be cast by the sole shareholder at the meeting.

Similar to last year and in consideration of the health and safety of our employees, voting policyholders and the broader community, voting policyholders will have the opportunity to virtually attend the meeting, ask questions and vote on a number of important matters in real time regardless of their geographic location, provided they are connected to the internet and follow the instructions in this booklet.

The annual meeting of common shareholders of SLF Inc. will also be held at the same time and place.

If you cannot attend the meeting, please cast your vote by proxy.

The board of directors has approved the contents of this report and has authorized us to send it to you.

Troy Krushel
Vice-President, Associate General Counsel & Corporate Secretary

Toronto, Ontario
March 17, 2023

2023 Report to Voting Policyholders

Contents

Voting

Who can vote

Only voting policyholders and our sole shareholder can vote at our annual meeting.

You are a voting policyholder if on March 17, 2023 (the record date) you owned one of the following:
- a participating policy issued by Sun Life Assurance or The Mutual Life Assurance Company of Canada (Mutual Life). Mutual Life changed its name to Clarica Life Insurance Company on July 21, 1999.
- a non-participating product with voting rights issued by Mutual Life before April 1, 1995.

The table below shows the breakdown of voting policyholders as of March 17, 2023:

	Voting Policyholders	
Country	#	%
Canada	848,221	86
United States	37,295	4
Other	97,221	10
Total	**982,737**	**100**

Voting policyholders are entitled to cast one vote on each item of business, regardless of the number of policies owned, except for the election of the shareholder's directors. SLF Inc., our sole shareholder, is entitled to cast one vote on each item of business for each common share it holds, except for the election of the policyholders' directors.

See *Electing the directors* on page 7 for more information.

How to vote

You have three ways to vote:

- by proxy; or
- by attending the meeting and voting by online ballot through the live webcast platform; or
- by attending the meeting and voting in person (subject to ongoing developments related to the COVID-19 pandemic, and being permitted by public health guidelines).

To vote by proxy or virtually during the meeting, **you will need a control number**. If you did not receive a form of proxy or email notification from our agent TSX Trust containing the control number, please contact TSX Trust at 1 (866) 751-6315 (within North America) or 1 (647) 252-9650 (outside of North America) or by completing a form online using the following link: https://www.tsxtrust.com/control-number-request to obtain your control number. If you want to attend and vote during the meeting virtually, please make sure you have obtained your control number from TSX Trust at least one business day prior to the meeting.

Voting by proxy before the meeting

Voting by proxy is the easiest way to vote because you are giving someone else the authority to attend the meeting and vote for you (called your proxyholder). If you specify on your proxy form how you want to vote on a particular matter, then your proxyholder must vote according to your instructions.

The proxy form names Scott F. Powers, Chair of the Board (Board Chair), or in his absence M. Marianne Harris, Chair of the Governance, Investment & Conduct Review Committee, or in her absence another director appointed by the board, as your proxyholder to vote at the meeting according to your instructions.

If you appoint them as proxyholders but do not specify on your proxy form how you want to vote, your vote will be cast:

- ***FOR*** electing each of the director nominees who are listed on the proxy form (called policyholders' directors)
- ***FOR*** appointing Deloitte LLP (Deloitte) as auditor.

You can appoint another person to vote for you by printing his or her name in the space provided on your proxy form and registering them online, as described below. This person does not need to be a voting policyholder, but your vote can only be counted if he or she attends the meeting and votes for you. Regardless of who you appoint as your proxyholder, if you do not specify how you want to vote, your proxyholder can vote as he or she sees fit. Your proxyholder can also vote as he or she decides on any other matters that may properly come before the meeting, and on any amendments or variations to the items listed above, whether or not the amendment, variation or other matter that comes before the meeting is routine or contested (as permitted by law). You or your proxyholder must also complete the additional step of registering the proxyholder by calling TSX Trust at 1-866-751-6315 (within North America) or 1 (647) 252-9650 (outside of North America) or by completing an form online using the following link: https://www.tsxtrust.com/control-number-request by no later than 5:00 p.m. (Toronto time) on Thursday, May 4, 2023. Failing to register yourself or your proxyholder with TSX Trust will result in you or your proxyholder not receiving a control number, which is required to vote at the meeting.

If you do not want to attend and vote at the meeting, indicate your voting instructions on your proxy form, then sign, date and return it using one of the methods below:

- Mail it in the envelope provided
- Scan and email the signed page to www.proxyvote@tmx.com.

Alternatively, you may submit your voting instructions by telephone or on the Internet. You will need the 13-digit control number on your proxy form or email notification from TSX Trust to complete your voting instructions using one of these methods. The control number is to verify your identity.

Voting by phone (Canada & U.S. only)	Call 1-888-489-7352 from a touchtone telephone and follow the instructions.
Voting on the Internet	Go to www.meeting-vote.com and follow the instructions on screen.

TSX Trust must receive your completed and signed proxy form by 5:00 p.m. (Toronto time) on Thursday, May 4, 2023 to have your vote recorded.

If the meeting is adjourned or postponed, TSX Trust must receive your completed proxy form by 5:00 p.m. (Toronto time) on the date that is two business days before the meeting is reconvened.

You can also find a blank form of proxy on TSX Trust's website at www.meetingdocuments.com/TSXT/sla.

If you change your mind

You can revoke instructions you have already provided on your proxy form by giving us new instructions in one of the following ways:

- complete and sign a proxy form with a later date than the one you previously sent, and deliver or deposit it to TSX Trust as described above before 5:00 p.m. (Toronto time) on Thursday, May 4, 2023.
- submit new voting instructions to TSX Trust by telephone or the Internet before 5:00 p.m. (Toronto time) on Thursday, May 4, 2023.
- deliver or deposit a notice in writing with your new instructions signed by you, or your attorney as authorized by you in writing, to Sun Life Assurance at the address below before 5:00 p.m. (Toronto time) on Wednesday, May 10, 2023, or if the meeting is adjourned or postponed, before 5:00 p.m. (Toronto time) on the business day before the meeting is reconvened.
- if you are attending the meeting in person, give your written instructions signed by you, or your attorney as authorized by you in writing, to the Chair of the meeting before the start of the meeting or before the meeting is reconvened.
- if you have followed the instructions for attending and voting at the meeting online, voting at the meeting online will revoke your previous instructions.

Voting during the meeting

Voting policyholders will have the opportunity to virtually attend the meeting, ask questions and vote on a number of important matters by way of live webcast. Subject to ongoing developments related to the COVID-19 pandemic and being permitted by public health guidelines, this year's annual meeting will also be held at Sun Life's head office at 1 York Street (at Harbour Street), 35th floor, Toronto, Ontario, Canada. Attending the meeting, in person or online, gives you an opportunity to hear directly from management.

Voting at the virtual meeting

If you want to attend the meeting and vote virtually, do not complete or return your proxy form.

Voting policyholders and duly appointed proxyholders that attend the meeting online will be able to vote by completing a ballot online during the meeting through the live webcast platform.

Guests can log into the meeting as set out below. Guests will be able to listen to the meeting but will not be able to vote during the meeting.

- Step 1: Log in online at https://web.lumiagm.com/451195677. We recommend that you log in at least one hour before the meeting starts.
- Step 2: Follow these instructions:

  Voting policyholders: Click "I have a control number" and then enter your control number and password "sunlife2023" (case sensitive). Your control number is the number located on the form of proxy or in the email notification you received from TSX Trust. If you use your control number to log in to the meeting, any vote you cast at the meeting will revoke any proxy you previously submitted. If you do not wish revoke a previously submitted proxy, you should not vote during the meeting.

  Guests: Click "Guest" and then complete the online form.

It is your responsibility to ensure internet connectivity for the duration of the meeting and you should allow ample time to log in to the meeting online before it begins. You will need the latest versions of Chrome, Safari, Edge or Firefox. **Please do not use Internet Explorer.** It is possible that internal network security protocols, including firewalls and VPN connections may block access to the webcast. If you are experiencing any difficulty connecting or watching the meeting, please ensure your VPN setting is disabled or use a computer on a network not restricted to security settings of your organization.

Voting in person

If you want to attend the meeting and vote in person, do not complete or return your proxy form. When you arrive at the meeting, register with a representative of our agent, TSX Trust, to receive a ballot. Voting policyholders are advised to check our website www.sunlife.com/annualmeetingmaterials periodically in advance of the meeting for any updates on in person attendance in light of the COVID-19 pandemic.

Processing the votes

A simple majority of votes cast is required for the approval of each of the matters being voted on at the meeting.

TSX Trust counts and tabulates the proxies on our behalf. Proxy forms are only shown to management if it is clear that the policyholder wants to communicate directly with them, or when the law requires it.

We will file the voting results on SEDAR (www.sedar.com) and publish them on our website (www.sunlife.com) shortly after the meeting.

Questions?

You can contact the Corporate Secretary if you have any questions related to voting:

The Corporate Secretary, Sun Life Assurance
1 York Street, Toronto, Ontario, Canada M5J 0B6
E-mail: boarddirectors@sunlife.com

Our 2023 annual meeting

Similar to last year and in consideration of the health and safety of our employees, voting policyholders and the broader community, voting policyholders will have the opportunity to virtually attend the annual meeting online, ask questions and vote on a number of important matters by way of live webcast at https://web.lumiagm.com/451195677 in real time and regardless of your geographic location.

Subject to ongoing developments related to the COVID-19 pandemic, and being permitted by public health guidelines, this year's annual meeting will be also held at Sun Life's head office at 1 York Street (at Harbour Street), 35th floor, Toronto, Ontario, Canada.

Business of the meeting

Financial statements (see pages 24 to 129)

You will receive the consolidated financial statements for the year ended December 31, 2022, the auditors' reports thereon and the actuary's report on the policy liabilities reported in the financial statements, and have the opportunity to ask questions. These are all included in this document.

Electing the directors (see pages 9 to 16)

A total of 12 directors will be elected to serve on our board until the next annual meeting. All of the director nominees currently serve on our board. All 12 individuals are also nominated to serve as directors of SLF Inc., the sole shareholder of Sun Life Assurance.

Voting policyholders are legally entitled to elect at least one-third of our board as policyholders' directors. That means you can elect at least four of the directors who will serve on our board. SLF Inc. elects the remaining members of the board as the shareholder's directors.

Under the *Insurance Companies Act* (Canada), we must designate each member of the board as either a policyholders' director or a shareholder's director. All directors, regardless of who they were elected by, have a duty to act in the best interests of Sun Life Assurance, taking into account the interests of the policyholders and the shareholder.

The table below lists the directors who are currently designated as policyholders' directors, and the 12 individuals nominated to serve on our board for 2023. Their terms will expire at the conclusion of the next annual meeting.

Current Policyholders' Directors	Policyholders' Director Nominees for 2023	Shareholder's Director Nominees for 2023
Stephanie L. Coyles	Deepak Chopra	Ashok K. Gupta
M. Marianne Harris	Stephanie L. Coyles	Laurie G. Hylton
Marie-Lucie Morin	M. Marianne Harris	David H. Y. Ho
Scott F. Powers	Marie-Lucie Morin	Helen M. Mallovy Hicks
	Scott F. Powers	Joseph M. Natale
		Kevin D. Strain
		Barbara G. Stymiest

The Governance, Investment & Conduct Review Committee has reviewed each of the nominees and confirmed that they have the key competencies and experience necessary for the board to fulfil its mandate.

We expect that all of the nominees will be able to serve as a director. If for any reason a nominee is unable to serve, the persons named in the proxy form have the right to vote at their discretion for another nominee proposed according to the company's by-laws and applicable law.

The board recommends that policyholders vote FOR electing each of the individuals nominated as policyholders' directors profiled below. If you do not specify in your proxy form how you want to vote on the election of directors, the persons named in the form of proxy will vote *for* electing each of Deepak Chopra, Stephanie L. Coyles, M. Marianne Harris, Marie-Lucie Morin and Scott F. Powers, who have been nominated as policyholders' directors.

SLF Inc., as the sole shareholder of Sun Life Assurance, intends to vote *for* electing the other individuals profiled below who have been nominated as shareholder's directors.

Our policy on majority voting

The election of directors at the meeting is expected to be an uncontested election, meaning that the number of nominees will be equal to the number of directors to be elected. If a director receives more "withheld" than "for" votes in an uncontested election, he or she must tender a written offer to resign to the board. The board will accept the resignation within 90 days unless there are exceptional circumstances and will disclose the reasons for its decision in a news release. The director will not participate in these deliberations.

Appointing the auditor

You will vote on the appointment of Deloitte as our auditor for 2023. Deloitte has been the auditor of Sun Life Assurance since 1875.

We maintain independence from our auditor through Audit Committee oversight, a robust regulatory framework in Canada, including the requirement to rotate the lead audit partner at least every five years, and Deloitte's own internal independence procedures which are designed to comply with Canadian Public Accountability Board and Public Company Accounting Oversight Board requirements. The Audit Committee pre-approves services provided by the auditors, and also conducts a formal review of the external auditors every year. We completed a comprehensive audit tender process in 2016 and have since carried out an annual review each year. It is our intention to carry out a more comprehensive review in 2024 following the completion of the initial adoption of International Financial Reporting Standards 17 (IFRS 17) Insurance Contracts and at a minimum every 5 years thereafter. **The board, on recommendation of the Audit Committee, recommends voting FOR Deloitte as our auditor. If you do not specify in your proxy form how you want to vote, the persons named in the form of proxy will vote *FOR* the appointment of Deloitte as our auditor.**

Auditor's fees

The table below shows the fees relating to services provided by Deloitte for the past two years:

	($millions)	
Year ended December 31	**2022**	**2021**
Audit fees	23.2	15.2
Audit-related fees	0.6	0.4
Tax fees	0.0	0.1
All other fees	0.1	0.1
Total	**23.9**	**15.8**

Audit fees relate to professional services rendered by the auditors for the audit of our annual consolidated financial statements, the statements for our segregated funds and services related to statutory and regulatory filings. The increase in audit fees in 2022 compared to 2021 is largely due to audit work in preparation for the adoption of new accounting standards, IFRS 17 Insurance and IFRS 9 Financial Instruments.

Audit-related fees include assurance services not directly related to performing the audit of the annual consolidated financial statements of the company. These include internal control reviews, specified procedure audits and employee benefit plan audits.

Tax fees relate to tax compliance, tax advice and tax planning.

All other fees relate to products and services other than audit, audit-related and tax as described above.

We have a policy that requires the Audit Committee to pre-approve any services to be provided by the external auditor. The committee has, subject to reporting requirements, pre-approved certain audit, audit-related and other permissible non-audit services that are consistent with maintaining the independence of the external auditor. You can find more information about this policy in SLF Inc.'s 2022 annual information form which is available on SEDAR (www.sedar.com) and on EDGAR (www.sec.gov/edgar.shtml).

Considering other business

You can vote on other items of business that are properly brought before the meeting. As of the date of this booklet, we were not aware of any other items to be brought forward.

The director nominees

At the 2023 annual meeting, 12 directors are to be elected for a term ending at the conclusion of the next annual meeting. All of the 12 nominees currently serve on our board. Laurie G. Hylton and Joseph M. Natale are standing for election for the first time at the meeting.

Director nominee profiles

The following profiles provide information about each of the director nominees, including when they joined our board, their business experience, their current committee memberships and their attendance at board and committee meetings in 2022, and other public company directorships held in the last five years. Our 11 independent director nominees have an average board tenure of 4 years, 6 of them (55%) self-identify as women, 3 of them (27%) self-identify as a member of an underrepresented group[1], and none have identified as Indigenous peoples or persons with disabilities.

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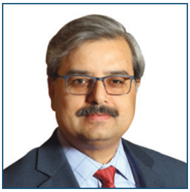
1 individuals who have self-identified as members of the Black, Indigenous, People of Colour, disabled and/or LGBTQ2+ communities



Deepak Chopra, FCPA
Toronto, ON, Canada

Director since May 2021

Independent

Age: 59

Mr. Chopra is a corporate director and most recently served as the President and Chief Executive Officer of Canada Post Corporation from 2011 to 2018. He has more than 30 years of global experience in the financial services, technology, logistics and supply-chain industries. Prior to joining Canada Post, he held various senior positions during his 23-year career with Pitney Bowes Inc., a NYSE-traded technology company known for postage meters, mail automation and location intelligence services, including President & Chief Executive Officer, Canada & Latin America, President, Asia Pacific & Middle East and Vice-President & Chief Financial Officer, Europe, Africa & Middle East. Mr. Chopra has previously served on the boards of Canada Post Corporation, Purolator Inc., SCI Group, the Canada Post Community Foundation, the Toronto Region Board of Trade and the Conference Board of Canada. He is a Fellow of the Institute of Chartered Professional Accountants of Canada and holds a Bachelor's degree in Commerce (Honours) and a Post Graduate Diploma in Business Management (PGDBM).

2022 Meeting attendance			Other public company directorships	
Board	12 of 13	92.3%	The Descartes Systems Group Inc.	2020 - present
Audit	5 of 5	100%	Celestica Inc.	2018 - present
Governance, Investment & Conduct Review	7 of 7	100%	The North West Company Inc.	2018 - present
Total	24 of 25	96%		

Areas of expertise

- finance, accounting and actuarial
- government relations/policy
- talent and culture
- corporate strategy and development
- international business

Current committees

- Audit
- Governance, Investment & Conduct Review

Stephanie L. Coyles
Toronto, ON, Canada

Director since January 2017

Independent

Age: 55

Ms. Coyles is a corporate director. Her background is as a strategic consultant and advisor who has worked with a diverse clientele across North America, including retail, consumer distribution, private equity and business consulting organizations. She was previously Chief Strategic Officer at LoyaltyOne Co. from 2008 to 2012 and a partner at McKinsey & Company Canada from 2000 to 2008. In addition to the public company boards listed below, Ms. Coyles serves on the board of The Earth Rangers Foundation. She holds a Master in Public Policy degree. Ms. Coyles received the ICD.D designation from the Institute of Corporate Directors and the CERT Certificate in Cybersecurity Oversight, issued by the CERT Division of the Software Engineering Institute at Carnegie Mellon University.

2022 Meeting attendance			Other public company directorships	
Board	13 of 13	100%	Corus Entertainment Inc.	2020 - present
Governance, Investment & Conduct Review	7 of 7	100%	Metro Inc.	2015 - present
Management Resources	5 of 5	100%	Hudson's Bay Company	2019 - 2020
Total	25 of 25	100%		

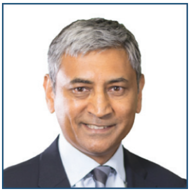
Areas of expertise

- client needs, sales and distribution
- corporate strategy and development
- international business
- digital and data/analytics
- leadership

Current committees

- Management Resources (Chair)[1]
- Governance, Investment & Conduct Review

[1] Ms. Coyles became Chair of the Management Resources Committee on May 11, 2022.



Ashok K. Gupta, FFA
London, England

Director since May 2018

Independent

Age: 68

Mr. Gupta is a corporate director. He is also Chair of Mercer Limited. During his 40-year career in the UK insurance and financial services industry, he has held a number of senior executive, advisor and actuarial positions. From 2010 to 2013, he was an advisor to the Group Chief Executive Officer of Old Mutual plc. Prior to this he held various senior positions with the Pearl Group plc (now Phoenix Group Holdings plc), Kinnect of Lloyd's of London, CGU plc (now part of Aviva plc), Scottish Amicable Life Assurance Company (now part of Prudential) and Tillinghast, Nelson &Warren Inc. (now part of Willis Towers Watson plc). Mr. Gupta is a Fellow of the Institute and Faculty of Actuaries. He is a Chairman of EValue Ltd. and a director of EV Risk Ratings Limited. From 2013 to 2019, Mr. Gupta was a director of New Ireland Assurance Company plc. He was involved in the UK public sector and served as a trustee of the Ethical Journalism Network from 2014 to 2021, served on the Actuarial Council and Codes and Standards Committee of the Financial Reporting Council in the U.K. between 2012 and 2018, was Chair of the Defined Benefits Taskforce of the Pensions and Lifetime Savings Association from 2016 to 2017 and Joint Deputy Chair of the Procyclicality Working Group of the Bank of England from 2012 to 2014. Mr. Gupta holds a Master of Business Administration degree.

2022 Meeting attendance			Other public company directorships	
Board	13 of 13	100%	JPMorgan European Discovery Trust plc (formerly JPMorgan European Smaller Companies Investment Trust plc)	2013 - present
Management Resources	5 of 5	100%		
Risk	4 of 4	100%		
Total	22 of 22	100%		

Areas of expertise

- finance, accounting and actuarial
- corporate strategy and development
- insurance, health and wealth
- digital and data/analytics
- risk management

Current committees

- Risk (Chair)
- Management Resources

M. Marianne Harris
Toronto, ON, Canada

Director since December 2013

Independent

Age: 65

Ms. Harris is a corporate director. She was Managing Director and President, Corporate and Investment Banking, Merrill Lynch Canada, Inc., an international banking and financial services organization, until 2013. She held progressively senior positions during her 13-year career with Merrill Lynch and affiliated companies in Canada and the U.S., including President, Global Markets and Investment Banking, Canada, Head of Financial Institutions Group, Americas and Head of Financial Institutions, Canada. Before joining Merrill Lynch, Ms. Harris held various investment banking positions with RBC Capital Markets from 1984 to 2000, including Head of the Financial Institutions Group. She is a director of the Public Sector Pension Investment Board, a director of President's Choice Bank and a member of the Dean's Advisory Council for the Schulich School of Business, and a member of the Advisory Council for the Hennick Centre for Business and Law. Ms. Harris holds a Master of Business Administration degree and a Juris Doctorate.

2022 Meeting attendance			Other public company directorships	
Board	13 of 13	100%	George Weston Limited	May 2022 - present
Audit[1]	3 of 3	100%	Loblaw Companies Limited	2016 - present
Governance, Investment & Conduct Review[1]	7 of 7	100%	Hydro One Limited	2015 - 2018
Management Resources[1]	3 of 3	100%		
Total	26 of 26	100%		

Areas of expertise

- finance, accounting and actuarial
- leadership
- insurance, health and wealth
- corporate strategy and development
- talent and culture

Current committees

- Governance, Investment & Conduct Review (Chair)[1]
- Audit[1]

[1] Ms. Harris ceased to be a member of the Management Resources Committee and became a member of the Audit Committee and Chair of the Governance, Investment & Conduct Review Committee on May 11, 2022.

David H. Y. Ho
Shenzhen, China

Director since May 2021

Independent

Age: 63

Mr. Ho is Chairman and Founder of Kiina Investment Limited, a venture capital firm that invests in start-up companies in the technology, media and telecommunications industries. He was previously a senior advisor for Permira Advisors LLC, a private equity buyout fund, from 2010 to 2018 and Chairman and founding partner of CRU Capital, a China-based private equity buyout fund, from 2017 to 2019. He has held senior leadership roles with Nokia Siemens Networks, Nokia Corporation, Motorola, and Nortel Networks in China and Canada. In addition to the public companies listed below, Mr. Ho serves on the board of DBS Bank (Hong Kong) Limited, a subsidiary of DBS Group Holdings. Mr. Ho previously served as a director of China Ocean Shipping Company from 2011 until its merger with China Shipping Group in 2016 to become China COSCO Shipping Corporation, China COSCO Shipping Corporation from 2016 to 2021, China Mobile Communications Group Co., Ltd. from 2016 to 2020, and Sinosteel Corporation from 2008 to 2016, each of which are state-owned enterprises in China. He holds a Bachelor of Applied Science (Honours Systems Design Engineering) and a Master of Applied Science in Management Sciences.

2022 Meeting attendance			Other public company directorships	
Board	13 of 13	100%	Qorvo, Inc.	2015 - present
Management Resources	5 of 5	100%	Air Products & Chemicals, Inc.	2013 - present
Governance, Investment & Conduct Review	7 of 7	100%	nVent Electric plc	2018 - 2020
Total	25 of 25	100%	COL Digital Publishing Group Co. Limited	2014 - 2020
			Pentair plc	2007 - 2018

Areas of expertise

- talent and culture
- corporate strategy and development
- international business
- digital and data/analytics
- leadership

Current committees

- Governance, Investment & Conduct Review
- Management Resources

Laurie G. Hylton
Newburyport, MA, United States

Director since December 2022

Independent

Age: 56

Ms. Hylton is a corporate director. She was previously a senior finance executive with more than 30 years of global experience in asset management, banking and public accounting. Prior to her retirement in March 2021, Ms. Hylton held various senior positions during her 27-year career with Eaton Vance Corp. (Eaton Vance), most recently serving as Vice-President & Chief Financial Officer, where she was a key part of the executive team leading the company's strategic planning and business transformations. Prior to that, she was Vice-President & Chief Accounting Officer and Head of Internal Audit, where she was responsible for internal controls and management of finance functions, and oversaw complex integrations of these functions in major acquisitions. Prior to joining Eaton Vance, Ms. Hylton was a Senior Auditor with Deloitte & Touche, where she covered financial services companies. She currently serves on the boards of Newburyport Art Association and Theater In the Open, and has previously served on the board of The Pike School. Ms. Hylton holds a Master of Business Administration degree and was a Certified Public Accountant from 1994 to June 2022.

2022 Meeting attendance	Other public company directorships
Ms. Hylton became a director on December 31, 2022.	None

Areas of expertise

- finance, accounting and actuarial
- leadership
- risk management
- corporate strategy and development
- talent and culture

Current committees

- Audit
- Risk

Helen M. Mallovy Hicks FCPA, FCBV
Toronto, ON, Canada

Director since October 2021

Independent

Age: 62

Ms. Mallovy Hicks is a corporate director. Prior to her retirement in June 2021, she was a partner of PricewaterhouseCoopers (PwC) with over 30 years of global business management and advisory experience. She most recently served as PwC's Global Valuation Business Line Leader from 2016 to 2021 and prior to that held various executive positions, including Canada GTA Deals Leader, Canada Valuation Leader and Deals Valuation Partner. She has advised boards and executives on complex transactions, value creation, capital allocation, business transformation and restructuring matters across a wide range of industries. In addition to the public companies listed below, she serves on the boards of the Public Sector Pension Investment Board and Princess Margaret Cancer Foundation, and has previously served on the boards of PricewaterhouseCoopers LLP - Canadian Partnership, Canadian Partnership Against Cancer, The Toronto Symphony Foundation and Toronto Symphony Orchestra. Ms. Mallovy Hicks is a Fellow of the Canadian Institute of Chartered Business Valuators and a Fellow of the Chartered Professional Accountants of Ontario.

2022 Meeting attendance			Other public company directorships	
Board	13 of 13	100%	Northland Power Inc.	2021 - present
Audit	5 of 5	100%		
Risk	4 of 4	100%		
Total	22 of 22	100%		

Areas of expertise

- finance, accounting and actuarial
- international business
- insurance, health and wealth
- corporate strategy and development
- risk management

Current committees

- Audit
- Risk

Marie-Lucie Morin CM, PC
Ottawa, ON, Canada

Director since December 2021

Independent

Age: 65

Ms. Morin is a corporate director. She was Executive Director for Canada, Ireland and the Caribbean at the World Bank from 2010 to 2013. Previously Ms. Morin pursued a 30-year career in Federal Public Service, including National Security Advisor to the Prime Minister and Associate Secretary to the Cabinet, Deputy Minister for International Trade and Associate Deputy Minister of Foreign Affairs. In 1997, Ms. Morin was appointed Canada's Ambassador to Norway with accreditation to Iceland. Earlier in her career she completed assignments in San Francisco, Jakarta, London, and Moscow with the Department of Foreign Affairs and International Trade. Ms. Morin was named Chevalier de la Legion d'Honneur by the Government of France in 2012, was sworn into the Queen's Privy Council for Canada in 2015 and became a member of the Order of Canada in 2016. In addition to the public companies listed below, Ms. Morin serves as the Vice-Chair of The Canadian Ditchley Foundation and Palette Skills Inc. and serves on the boards of CDPQ Infra, Canadian Institute for Advanced Research, Century Initiative and The Toronto Centre. She is currently a member of the National Security and Intelligence Review Agency and the ESG Advisory Council of Export Development Canada. She was admitted to the Quebec Bar in 1980.

2022 Meeting attendance			Other public company directorships	
Board	13 of 13	100%	Chorus Aviation Inc.	2016 - present
Management Resources	5 of 5	100%	Stantec Inc.	2016 - present
Risk	4 of 4	100%	AGT Foods and Ingredients Inc.	2016 - 2019
Total	22 of 22	100%		

Areas of expertise

- risk management
- government relations/policy
- talent and culture
- corporate strategy and development
- international business

Current committees

- Management Resources
- Risk

Joseph M. Natale
Toronto, ON, Canada

Director since February 2023

Independent

Age: 58

Mr. Natale is a corporate director and most recently served as the President and Chief Executive Officer of Rogers Communications Inc., a diversified Canadian communications and media company, from 2017 to 2021. Prior to joining Rogers, he held several executive positions at TELUS Corporation, a communications technology company, from 2003 to 2015, including President and Chief Executive Officer, Executive Vice President & Chief Commercial Officer, Executive Vice President & President, Customer Solutions and Executive Vice President & President, Business Solutions. Prior to that, Mr. Natale has held senior leadership roles with KPMG Consulting Inc. (later BearingPoint Inc.) including Global Leader, Automotive and Transportation Markets and Country Leader, Canada. Prior to KPMG Consulting, he was President and Co-founder of Piller, Natale & Oh Management Consultants which was acquired by KPMG Consulting in 1997. Mr. Natale serves as a trustee of The Hospital for Sick Children. He holds a Bachelor of Applied Science in Electrical Engineering. Mr. Natale was a recipient of Canada's Top 40 Under 40 Award in 2001, was awarded the Queen Elizabeth II Diamond Jubilee Medal in 2012, and was named as one of the Top 100 executives in global communications and media by Cablefax Magazine in 2021.

2022 Meeting attendance	Other public company directorships	
Mr. Natale became a director on February 7, 2023.	Home Capital Group Inc.	May 2022 - Present
	Toronto-Dominion Bank	2021 - April 2022
	Rogers Communications Inc.	2017 - 2021

Areas of expertise

- talent and culture
- corporate strategy and development
- client needs, sales and distribution
- digital and data/analytics
- leadership

Current committees

- Management Resources
- Risk

Scott F. Powers
Boston, MA,
United States

Director since October 2015

Independent

Age: 63

Mr. Powers is the Chair of the Boards of SLF Inc. and Sun Life Assurance. He was President and Chief Executive Officer of State Street Global Advisors until his retirement in August 2015. Before joining State Street in 2008, Mr. Powers was President and Chief Executive Officer of Old Mutual Asset Management Plc, the U.S.-based global asset management business of Old Mutual plc. Prior to 2008, he held senior executive positions at Mellon Institutional Asset Management, BNY Mellon's investment management business, and at The Boston Company Asset Management, LLC. Mr. Powers has also served as a member of the Systemic Risk Council and the Advisory Board of the U.S. Institute of Institutional Investors.

2022 Meeting attendance			Other public company directorships	
Board	13 of 13	100%	Automatic Data Processing, Inc.	2018 - present
Audit[1]	2 of 2	100%	PulteGroup, Inc.	2016 - present
Governance, Investment & Conduct Review[1]	5 of 5	100%		
Total	20 of 20	100%		

Areas of expertise

- talent and culture
- leadership
- client needs, sales and distribution
- corporate strategy and development
- international business

Current committees

- None[1]

[1] Mr. Powers was appointed as Board Chair on May 11, 2022, hence ceased to be member of the Audit Committee and the Governance, Investment & Conduct Review Committee.

Kevin D. Strain, CPA
Toronto, ON, Canada

Director since February 2021

Non-independent

Age: 56

Mr. Strain is President & Chief Executive Officer of SLF Inc. and Sun Life Assurance. Prior to his appointment in August 2021, he held several senior positions with SLF Inc. and Sun Life Assurance, including President, Executive Vice-President & Chief Financial Officer, President of Sun Life Asia, Senior Vice-President of the Individual Insurance and Investments division in Canada, and Vice-President of Investor Relations. Prior to joining the company in May 2002, Mr. Strain was Vice-President of the Pension business of Clarica Life Insurance Company, which was acquired by Sun Life in 2002, and played an instrumental role in the integration of Clarica. Mr. Strain is currently a director of Sunnybrook Health Sciences Centre and the Board of Governors of the University of Waterloo. He is a Certified Public Accountant and holds a Master of Accounting degree.

2022 Meeting attendance			Other public company directorships
Board	13 of 13	100%	None
Total	13 of 13	100%	

Current committees

- None[1]

[1] Mr. Strain attends committee meetings, in full or in part, as appropriate, at the request of the committee chairs, but is not a member of any committee.

Barbara G. Stymiest, CM, FCPA
Toronto, ON, Canada

Director since May 2012

Independent

Age: 66

Ms. Stymiest is a corporate director. She was a member of the Group Executive at Royal Bank of Canada, an international banking and financial services organization, from 2004 to 2011; Royal Bank's Group Head, Strategy, Treasury and Corporate Services from 2010 to 2011; Chief Operating Officer from 2004 to 2009. Prior to that Ms. Stymiest held senior positions in the financial services sector including Chief Executive Officer, TSX Group Inc. (now TMX Group Inc.), Executive Vice-President and Chief Financial Officer, BMO Nesbitt Burns, and Partner, Financial Services Group, Ernst & Young LLP. She is a Fellow of the Institute of Chartered Professional Accountants of Ontario and received an Award of Outstanding Merit from that organization in 2011. In addition to the public company boards listed below, Ms. Stymiest is the Vice-Chair of AGE-WELL NCE Inc., and a member of the Advisory Board of AgeTech Catalyst Fund, a director of the Canadian Institute for Advanced Research and a director of President's Choice Bank. She holds an Honours Business Administration degree.

2022 Meeting attendance			Other public company directorships	
Board	13 of 13	100%	George Weston Limited	2011 - present
Audit	5 of 5	100%	BlackBerry Limited	2007 - June 2022
Risk	4 of 4	100%		
Total	22 of 22	100%		

Areas of expertise

- finance, accounting and actuarial
- talent and culture
- insurance, health and wealth
- corporate strategy and development
- risk management

Current committees

- Audit (Chair)
- Risk

Additional information

To the best of the company's knowledge, other than as set out below, no proposed director as at the date of this booklet:

(a) is or has been, in the last ten years a director, chief executive officer or chief financial officer of any company (including SLF Inc.) that was subject to a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation, that was in effect for a period of more than 30 consecutive days that: (i) was issued while the proposed director was acting in the capacity as director, chief executive officer or chief financial officer; or (ii) was issued after the proposed director ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer; or

(b) is or has been, in the last ten years a director or executive officer of any company (including SLF Inc.) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or

(c) has, within in the last ten years, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the proposed director; or

(d) has been subject to (i) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or (ii) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable security holder in deciding whether to vote for a proposed director.

Ms. Coyles was a director of Postmedia Network Canada Corp. while it completed a restructuring following an arrangement plan under the *Canada Business Corporations Act* in 2016. Ms. Coyles is no longer a director of Postmedia Network Canada Corp.

Policyholder proposals

We did not receive any policyholder proposals for consideration at the meeting.

Policyholder proposals for our 2024 annual meeting must be sent to us in writing. We must receive them by 5:00 p.m. (Toronto time) on December 18, 2023 to consider including them in our Report to Voting Policyholders for the 2024 meeting.

Send the proposal to the Corporate Secretary at Sun Life Assurance:

E-mail: boarddirectors@sunlife.com
Mail: 1 York Street, 31st Floor, Toronto, Ontario, Canada M5J 0B6

Director compensation

We have designed our director compensation program to be fair and competitive and allow the board to attract well qualified directors.

Directors receive an annual retainer, committee retainers and travel fees for serving on the boards of Sun Life Assurance and SLF Inc. The cost is shared equally between the two companies. Directors are also reimbursed for travel and other expenses they incur to attend our board and committee meetings. Committee chairs receive an additional retainer because of their increased responsibilities.

Directors receive a portion of their annual board retainer in deferred share units (DSUs) pursuant to our Deferred Share Unit Plan. A DSU is equal in value to a common share of SLF Inc. but cannot be redeemed until a director leaves the board. Directors can choose to receive the balance of their compensation in any combination of cash, additional DSUs and common shares of SLF Inc. acquired on the open market.

The Board Chair receives a separate annual retainer that includes a portion in DSUs. He is also reimbursed for travel and other expenses he incurs while carrying out his duties as Board Chair. He does not receive travel fees.

Mr. Strain does not receive any director compensation because he is our President & Chief Executive Officer.

Directors' compensation

The Governance, Investment & Conduct Review Committee (GICRC) reviews director compensation every two years. The GICRC last reviewed director compensation in 2020 and did not recommend making any changes to amounts payable to directors' resulting in the same compensation structure being in place since January 1, 2019. In 2022, the GICRC retained Meridian Compensation Partners (Meridian), an independent compensation consultant, to provide a competitive review of our director compensation program. Meridian used data from our peer group and data from constituents in the TSX 60 Index and compared that data to two "model director" profiles with the first profile reflecting a director who is a Committee Chair and a member of another Committee and the second profile reflecting a director who is a member of two Committees (all Board members serve on two Committees). Meridian's analysis indicated that the total director compensation for Sun Life directors was significantly below the peer median (25% and 28% below peer median for the two profiles). Meridian recommended a $50,000 increase to the total compensation for the directors, including the Board Chair, with an increase to the minimum required to be taken in DSUs from $120,000 to $160,000 (see below). With the changes recommended by Meridian total compensation is positioned 12% and 13% below median for the two profiles. Based on Meridian's analysis and recommendations, the GICRC recommended, and the board approved, the following compensation structure effective January 1, 2023.

2023 Director Compensation	Amount($)
Board Chair's retainer	490,000[1]
Directors' retainers	275,000[2]
Committee chairs' retainers	45,000
Committee members' retainers	10,000
Travel fees	1,500 – 3,000/ meeting[3]

1 $245,000 of which must be received in DSUs with the balance to be received in cash, DSUs and/or shares.
2 $160,000 of which must be received in DSUs with the balance to be received in cash, DSUs and/or shares.
3 Travel fees are (i) $1,500 when travel time for a round trip was two to six hours and (ii) $3,000 when travel time for a round trip was six hours or more.

The table below shows the directors' compensation structure in effect prior to January 1, 2023:

2022 Director Compensation	Amount($)
Board Chair's retainer	440,000[1]
Directors' retainers	225,000[2]
Committee chairs' retainers	45,000
Committee members' retainers	10,000
Travel fees	1,500 – 3,000/ meeting[3]

1 $220,000 of which must be received in DSUs with the balance to be received in cash, DSUs and/or shares.
2 $120,000 of which must be received in DSUs with the balance to be received in cash, DSUs and/or shares.
3 Travel fees are (i) $1,500 when travel time for a round trip was two to six hours and (ii) $3,000 when travel time for a round trip was six hours or more.

Directors can choose to receive the balance of their compensation in any combination of cash, additional DSUs and common shares of SLF Inc. acquired on the open market. Directors cannot redeem their DSUs until they leave the board. All DSU awards are paid out in cash.

Except for the Deferred Share Unit Plan, independent directors do not participate in the company's stock option plan or any other equity-based or incentive compensation arrangements.

Compensation details

Director compensation table

We paid a total of $2,758,297 to the directors of Sun Life Assurance and SLF Inc. for their services in 2022[1], compared to $2,842,315 in 2021.

Name	Fees earned ($)	Share-based awards[2] ($)	Travel fees ($)	Option-based awards[3] ($)	Non-equity incentive plan compensation ($)	Pension value ($)	All other compensation[4] ($)	Total ($)
William D. Anderson	79,780	79,780	-	-	-	-	10,000[5]	169,560
Deepak Chopra	-	245,000	-	-	-	-	-	245,000
Stephanie L. Coyles	126,202	141,202	-	-	-	-	-	267,404
Martin J. G. Glynn	45,330	43,516	3,000	-	-	-	13,918[6]	105,764
Ashok K. Gupta	-	280,000	12,000	-	-	-	-	292,000
M. Marianne Harris	-	280,000	-	-	-	-	-	280,000
David H. Y. Ho	-	245,000	6,000	-	-	-	-	251,000
Helen M. Mallovy Hicks	-	245,000	-	-	-	-	-	245,000
Marie-Lucie Morin	100,000	145,000	12,000	-	-	-	-	257,000
Scott F. Powers	-	382,569	3,000	-	-	-	-	385,569
Barbara G. Stymiest	16,000	264,000	-	-	-	-	-	280,000
TOTAL								**2,778,297**

1 Ms. Laurie G. Hylton's compensation is not included as she became a director on December 31, 2022. Mr. Joseph M. Natale's compensation is not included as he became a director on February 7, 2023.
2 Independent directors do not participate in the company's stock option plan.
3 This includes DSUs awarded in 2022, including both mandatory DSUs as well as DSUs elected to be received by the directors in lieu of cash fees.
4 Mr. Anderson and Mr. Glynn retired in May 2022.
5 This includes $10,000 in charitable donations made on behalf of Mr. Anderson when he retired from the board.
6 This includes $10,000 in charitable donations made on behalf of Mr. Glynn when he retired from the board and travel reimbursement of $3,918 paid for Mr. Glynn's spouse in connection with his retirement.

The *Insurance Companies Act* (Canada) requires that an insurance company's by-laws set a maximum amount of remuneration that may be paid in aggregate to all directors for their services during a fixed period of time. Directors receive an annual retainer, committee retainers and travel fees for serving on the boards of SLF Inc. and Sun Life Assurance. The cost is shared equally between the two companies. By-law No. 1 of the company currently sets that amount at $2,600,000 and the by-laws of SLF Inc. also set that amount at $2,600,000, for an aggregate limit of $5,200,000 between the two companies.

Policyholder dividends and participating account management

Participating policies are eligible to receive policyholder dividends because they share, or 'participate in', a portion of the earnings associated with life insurance, which fluctuate over time due to factors such as changing investment returns, mortality, policy surrender, expenses, and taxes. Non-participating policies do not qualify for policyholder dividends. Your eligibility to receive policyholder dividends is described in your policy.

Policyholder dividends vs. shareholder dividends

Policyholder dividends are not the same as shareholder dividends.

Shareholder dividends depend on a company's overall performance, including earnings from its different businesses. Policyholder dividends depend on the earnings of a group of policies in a company's *participating account*. Policyholder dividends are not guaranteed and vary based on the gain and loss related to experience factors, including, but not limited to:

- investment returns
- mortality
- policy surrender
- expenses, and
- taxes.

While all of these factors can change over time, investment returns have the biggest impact on policyholder dividends. None of the factors, however, affect any of the guaranteed amounts in your policy, such as guaranteed death benefits and guaranteed cash surrender values.

We sometimes use techniques such as reinsurance to help reduce the risks associated with these factors worsening. Reinsurance transfers the risk to another insurance company, but we are still responsible for paying the benefits under your policy.

Sun Life Assurance and Clarica Life Insurance Company (Clarica) were both mutual companies at one time, owned by their participating policyholders. Each company changed from a mutual company to a publicly traded stock company in a process called *demutualization*.

At that time, eligible policyholders received shares or cash as compensation for their ownership position, and they approved conversion plans outlining their ongoing rights as participating policyholders.

Clarica was acquired by SLF Inc. on May 29, 2002.

Questions?

For more information, see *Answers about participating (par) life insurance*. Although the pamphlet has been written for our Canadian policyholders, it generally applies to all participating policyholders.

You can download a copy from our Canadian website (www.sunlife.ca) – from the "Insurance" menu, select "Life Insurance", then "Participating life insurance" under "Permanent Life Insurance" types of life insurance. The link to the pamphlet is listed under "*Related Resources*".

You can also request a copy from the Corporate Secretary. Please refer to the contact information on page 7.

Our policyholder dividend and participating account management policies

These two policies apply to all participating policies that we (or our predecessors) issued or assumed. These were primarily issued or assumed in Canada, Bermuda, the United States, and the Philippines.

The policies describe how we manage our participating business funds, which are referred to as accounts, and how we determine policyholder dividends.

Our policyholder dividend and participating account management policies are provided in Appendix A of this report and are also publicly available at no charge at the link described on the previous page. You can also request a copy from the Corporate Secretary. Please refer to the contact information on page 7.

Safeguards for our policyholder dividend and participating account management processes

We have many safeguards in place to make sure our policies continue to be fair and that participating business is managed in accordance with all legal requirements, professional standards and our internal policies.

The board has appointed an actuary to carry out certain responsibilities relating to participating policyholders that are required under the *Insurance Companies Act* (Canada) (ICA). The Appointed Actuary is a member of management and follows professional standards of practice set by the Canadian Institute of Actuaries.

Every year, the Appointed Actuary:

- analyses our financial condition and prepares a report for the board that includes reviewing our capital and surplus requirements (including the local capital requirements in each jurisdiction where we operate) and testing our capital adequacy under possible economic and business conditions
- provides opinions as to the fairness of the policyholder dividend and participating account management policies, as to the fairness of policyholder dividends and whether they comply with the dividend policy, and whether the allocations of investment returns and expenses to the participating account are fair and equitable to participating policyholders
- reviews the status of the participating account and prepares a detailed report for the regulator
- signs an opinion as to whether the participating policies are being managed in accordance with the agreements made at the time of demutualization.

2023 dividend scales

The board reviewed the 2023 dividend scales for all accounts at their meetings on August 2, 2022 and November 2, 2022, and made the following decisions:

Territory	Changes
Canada (Clarica)	• annual dividend scales generally increased
Canada (Sun Life)	• annual dividend scales generally increased • no change to terminal dividend scales
United States	• annual dividend scales generally increased • terminal dividend scales generally increased
Philippines	• no change
International	• annual dividend scales generally increased • terminal dividend scales generally decreased

Information about the financial position of our participating accounts

We maintain separate participating accounts for each territory. In Canada, accounts are separated between former Clarica business and policies issued by Sun Life Assurance.

When we demutualized, we grouped together the participating policies that had been issued before demutualization and put them into their own separate sub-accounts known as Closed Blocks. Canada (Sun Life) (including Bermuda), Canada (Clarica), the U.S. and the Philippines each have a Closed Block.

Policies issued after demutualization are in a separate sub-account called an Open Block. Canada (Sun Life) (including Bermuda), Canada (Clarica) and the U.S. each established an Open Block at the time of demutualization. In 2019, the small U.S. Open Block was merged with the U.S. Closed Block. The International Open Block was established in 2019.

The following tables show the change in surplus for the Closed and Open Blocks for 2022 and 2021.

Closed and Open sub-accounts 2022 (in millions of Canadian dollars)	Canada (Sun Life) Closed	Canada (Sun Life) Open	Canada (Clarica) Closed	Canada (Clarica) Open	U.S. Closed	Philippines Closed	International Open
Opening surplus	0	1,398	0	37	0	0	119
Currency	-	-	-	-	-	-	7
Net earnings before policyholder dividends	197	626	367	19	69	29	10
Policyholder dividends paid	(197)	(459)	(367)	(14)	(69)	(29)	(4)
Transfers to shareholders[1]	0	(12)	-	0	-	-	0
Other transfers[2]	-	-	-	-	-	-	(9)
Closing surplus	0	1,553	0	42	0	0	123
Total assets	9,044	8,016	11,347	484	5,060	795	2,072
Total liabilities	9,044	6,463	11,347	442	5,060	795	1,949

Closed and Open sub-accounts 2021 (in millions of Canadian dollars)	Canada (Sun Life) Closed	Canada (Sun Life) Open	Canada (Clarica) Closed	Canada (Clarica) Open	U.S. Closed	Philippines Closed	International Open
Opening surplus	0	1,123	0	49	0	0	60
Currency	-	-	-	-	-	-	1
Net earnings before policyholder dividends	198	650	351	1	72	32	60
Policyholder dividends paid	(198)	(365)	(351)	(13)	(72)	(32)	(2)
Transfers to shareholders[1]	0	(10)	-	0	-	-	-
Other transfers	-	-	-	-	-	-	-
Closing surplus	0	1,398	0	37	0	0	119
Total assets	9,783	6,715	12,216	513	5,101	908	2,206
Total liabilities	9,783	5,317	12,216	476	5,101	908	2,087

[1] Transfers from Open Blocks to shareholders are at the maximum permitted by regulation. For 2022 and 2021, the maximum allowed percentage of the dividends paid to Open Block policyholders in the year is 2.7%. The amounts round to zero in millions of Canadian dollars for Canada (Clarica) in 2022 and 2021, and for International in 2022. No transfers were made for International in 2021 due to materiality.

[2] In 2022, OSFI approved a transfer of $9 million which was attributed to sources not related to the participating policies in the International participating account. The transfer has no impact on regulatory capital requirements, and will have no adverse impact on the policy dividends or security of benefits of participating policyholders.

Annual Financial Information

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Sun Life Assurance Company of Canada

For the year ended December 31, 2022

Financial Reporting Responsibilities

Management is responsible for preparing the Consolidated Financial Statements. This responsibility includes selecting appropriate accounting policies and making estimates and other judgments consistent with International Financial Reporting Standards. The financial information presented elsewhere in the policyholder booklet and Ontario Securities Commission filings is consistent with these Consolidated Financial Statements.

The Board of Directors ("Board") oversees management's responsibilities for financial reporting. An Audit Committee of non-management directors is appointed by the Board to review the Consolidated Financial Statements and report to the Board prior to their approval of the Consolidated Financial Statements for issuance to policyholders.

Management is also responsible for maintaining systems of internal control that provide reasonable assurance that financial information is reliable, that all financial transactions are properly authorized, that assets are safeguarded, and that Sun Life Assurance Company of Canada and its subsidiaries, collectively referred to as "the Company", adhere to legislative and regulatory requirements. These systems include the communication of policies and the Company's Code of Business Conduct throughout the organization. Internal controls are reviewed and evaluated by the Company's internal auditors.

The Audit Committee also conducts such review and inquiry of management and the internal and external auditors as it deems necessary towards establishing that the Company is employing appropriate systems of internal control, is adhering to legislative and regulatory requirements and is applying the Company's Code of Business Conduct. Both the internal and external auditors and the Company's Appointed Actuary have full and unrestricted access to the Audit Committee with and without the presence of management.

The Office of the Superintendent of Financial Institutions, Canada conducts periodic examinations of the Company. These examinations are designed to evaluate compliance with provisions of the *Insurance Companies Act* (Canada) and to ensure that the interests of policyholders, depositors, and the public are safeguarded. The foreign operations of Sun Life Assurance Company of Canada and foreign subsidiaries are examined by regulators in their local jurisdictions.

The Company's Appointed Actuary, who is a member of management, is appointed by the Board to discharge the various actuarial responsibilities required under the *Insurance Companies Act* (Canada), and conducts the valuation of the Company's actuarial liabilities. The role of the Appointed Actuary is described in more detail in Note 10. The report of the Appointed Actuary accompanies these Consolidated Financial Statements.

The Company's external auditor, Deloitte LLP, Independent Auditor, has audited the Consolidated Financial Statements for the years ended December 31, 2022 and December 31, 2021 and meets separately with both management and the Audit Committee to discuss the results of its audit. The auditor's report to the policyholders and shareholder accompanies these Consolidated Financial Statements.

Kevin Strain, CPA, CA
President and Chief Executive Officer

Manjit Singh, CPA, CA
Chief Financial Officer

Toronto, Ontario, Canada
February 8, 2023

Appointed Actuary's Report

THE POLICYHOLDERS, SHAREHOLDER AND DIRECTORS OF
SUN LIFE ASSURANCE COMPANY OF CANADA

I have valued the policy liabilities and reinsurance recoverables of Sun Life Assurance Company of Canada and its subsidiaries for its Consolidated Statements of Financial Position at December 31, 2022 and December 31, 2021 and their change in the Consolidated Statements of Operations for the year ended December 31, 2022 in accordance with accepted actuarial practice in Canada, including selection of appropriate assumptions and methods.

In my opinion, the amount of policy liabilities net of reinsurance recoverables makes appropriate provision for all policy obligations and the Consolidated Financial Statements fairly present the results of the valuation.

Kevin Morrissey
Fellow, Canadian Institute of Actuaries

Toronto, Ontario, Canada
February 8, 2023

Independent Auditor's Report

To the Policyholders and Shareholder of Sun Life Assurance Company of Canada

Opinion

We have audited the consolidated financial statements of Sun Life Assurance Company of Canada (the "Company"), which comprise the consolidated statements of financial position as at December 31, 2022 and 2021, and the consolidated statements of operations, comprehensive income (loss), changes in equity and cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as at December 31, 2022 and 2021, and its financial performance and its cash flows for the years then ended in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS").

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards ("Canadian GAAS"). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2022. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Insurance Contract Liabilities – Refer to Notes 1 and 10 to the Financial Statements

Key Audit Matter Description

The Company has significant insurance contract liabilities representing the majority of its total liabilities. Application of different assumptions may result in different measurement of the insurance contract liabilities. There is insurance risk from the uncertainty of product performance due to differences between the actual experience and expected experience. The Company uses various actuarial models to determine insurance contract liabilities, some of which involve high levels of complexity.

While there are many assumptions which management makes, the assumptions with the greatest uncertainty are those related to mortality, including the impact, if any, of the COVID-19 pandemic, and lapse and other policyholder behaviour ("policyholder behaviour"). These assumptions required subjective and complex auditor judgment in certain circumstances, including where (i) there is limited Company and industry experience data, (ii) the historical experience may not be a good indicator of the future, and (iii) the policyholder behaviour may be irrational. Auditing of certain actuarial models and mortality and policyholder behaviour assumptions required a high degree of auditor judgment and an increased extent of audit effort, including the need for the integral involvement of actuarial specialists.

How the Key Audit Matter Was Addressed in the Audit

Our audit procedures related to actuarial models and assumptions of mortality and policyholder behaviour included the following, among others:

- We evaluated and tested the effectiveness of controls over actuarial models and the determination of the mortality and policyholder behaviour assumptions used in the calculation of insurance contract liabilities as well as access and change management controls over those actuarial models.
- With the assistance of actuarial specialists, we tested the reasonableness of key mortality and policyholder behaviour assumptions, by:
  - Evaluating management's methods and assumptions in accordance with actuarial principles and practices under the Canadian actuarial standards of practice.
  - Testing experience studies and other inputs used in the determination of the mortality and policyholder behaviour assumptions.
  - Analyzing management's interpretation of its experience study results, evaluating triggers and drivers for revisions of assumptions, assessing reasonably possible alternative assumptions, and considering industry and other external sources of data, where applicable.
- With the assistance of actuarial specialists, we tested the appropriateness of actuarial models used in the estimation process by:
  - Calculating an independent estimate of the insurance contract liability for a sample of insurance policies and comparing the results to the Company's results.
  - Testing the accuracy of a sample of actuarial models for changes in key assumptions.

Valuation of Investment Properties – Refer to Notes 1 and 5 to the Financial Statements

Key Audit Matter Description

Investment properties are accounted for at fair value. The fair values of investment properties are generally determined using property valuation models and are based on expected capitalization rates and models that discount expected future net cash flows at current market expected rates of return reflective of the characteristics, location, and market of each property. Expected future net cash flows include contractual and projected cash flows and forecasted operating expenses, and take into account discount, rental, and occupancy rates derived from market surveys. The estimates of future cash inflows in addition to expected rental income from current leases, include projected income from future leases based on significant assumptions that are consistent with current market conditions.

The assumptions with the greatest uncertainty are the discount rates, terminal capitalization rates, and future rental rates. Performing audit procedures to assess inputs required a high degree of auditor judgment and an increased extent of audit effort, including the need for the integral involvement of valuation specialists.

How the Key Audit Matter Was Addressed in the Audit

Our audit procedures related to valuation models and assumptions including discount rates, terminal capitalization rates, and future rental rates included the following, among others:

- We evaluated and tested the effectiveness of controls over the fair value process for investment properties. These controls include an assessment and approval by senior management of the discount rates, terminal capitalization rates, and future rental rates assumptions used in the determination of the valuation of investment properties and the valuation conclusions relative to comparable properties.
- With the assistance of valuation specialists, we evaluated on a sample basis the reasonableness of management's discount rates, terminal capitalization rates, and future rental rates assumptions and valuation conclusions by comparing them to the discount rates, terminal capitalization rates, and future rental rates of market surveys and transactions in comparable properties.

IFRS 17, Insurance Contracts to be Adopted in 2023 – Refer to Note 2 to the Financial Statements

Key Audit Matter Description

For the period beginning on January 1, 2023, the Company will be adopting IFRS 17, *Insurance Contracts* ("IFRS 17") which will impact how the Company recognizes, measures, presents and discloses insurance contracts. In accordance with IAS 8, *Accounting Policies, Changes in Accounting Estimates and Errors* ("IAS 8"), the Company disclosed the expected impacts of transition to the new standard, which remain subject to change as the Company continues to finalize its adoption of IFRS 17. The disclosures in the Company's 2022 consolidated financial statements are more limited than the disclosures to be included in the first year of adoption, being 2023.

Management was required to make certain judgments and estimates in determining the expected impacts of transition to IFRS 17 on the Company's Consolidated Statement of Financial Position at transition. This resulted in an increased extent of audit effort, including the involvement of various specialists.

How the Key Audit Matter Was Addressed in the Audit

Our audit procedures related to the disclosures in the 2022 consolidated financial statements included the following, among others:

- We evaluated and tested the effectiveness of controls over the disclosures;
- With the assistance of various specialists, we evaluated management's key judgments to determine the accounting treatment at transition by analyzing the disclosures against IFRS 17 accounting guidance;
- With the assistance of various specialists, we assessed the appropriateness and reasonableness of key models and valuation methodologies, significant assumptions and other key inputs used in determining the estimated impacts at transition;
- We evaluated the disclosures against relevant accounting guidance.

When additional IFRS 17 disclosures are required in the December 31, 2023 consolidated financial statements, further procedures on the impacts of transition will be performed.

Other Information

Management is responsible for the other information. The other information comprises the Information for Voting Policyholders.

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon. In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

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

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

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

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

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

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian GAAS will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

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

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor’s report is Margaret Tang.

Deloitte LLP

Chartered Professional Accountants
Licensed Public Accountants
Toronto, Ontario, Canada
February 8, 2023

Consolidated Financial Statements

Consolidated Statements of Operations

For the years ended December 31, (in millions of Canadian dollars)		2022	2021
Revenue			
Premiums			
Gross		**$ 27,217**	$ 25,483
Less: Ceded		**5,384**	4,978
Net premiums		**21,833**	20,505
Net investment income (loss):			
Interest and other investment income (Note 5)		**6,180**	6,382
Fair value and foreign currency changes on assets and liabilities (Note 5)		**(17,717)**	(1,774)
Net gains (losses) on available-for-sale assets		**45**	136
Net investment income (loss)		**(11,492)**	4,744
Fee income (Note 17)		**2,238**	2,250
Interest income from loans to related parties (Note 24)		**29**	28
Total revenue		**12,608**	27,527
Benefits and expenses			
Gross claims and benefits paid (Note 10)		**20,451**	18,700
Increase (decrease) in insurance contract liabilities (Note 10)		**(10,930)**	2,446
Decrease (increase) in reinsurance assets (Note 10)		**1,530**	581
Increase (decrease) in investment contract liabilities (Note 10)		**(107)**	(22)
Reinsurance expenses (recoveries) (Note 11)		**(7,615)**	(5,126)
Net transfer to (from) segregated funds (Note 22)		**(1,149)**	(351)
Operating expenses, commissions and premium taxes (Note 18)		**7,741**	7,393
Interest expense		**268**	266
Total benefits and expenses		**10,189**	23,887
Income (loss) before income taxes		**2,419**	3,640
Less: Income tax expense (benefit) (Note 20)		**313**	326
Total net income (loss)		**2,106**	3,314
Less: Net income (loss) attributable to participating policyholders (Note 21)		**116**	335
Net income (loss) attributable to non-controlling interests (Note 26)		**165**	156
Shareholder's net income (loss)		**1,825**	2,823
Less: Dividends on preferred shares (Note 15)		**32**	31
Common shareholder's net income (loss)		**$ 1,793**	$ 2,792
Average exchange rates during the reporting periods:	U.S. dollars	**1.30**	1.25

The attached notes form part of these Consolidated Financial Statements.

Consolidated Statements of Comprehensive Income (Loss)

For the years ended December 31, (in millions of Canadian dollars)	2022	2021
Total net income (loss)	**$ 2,106**	$ 3,314
Other comprehensive income (loss), net of taxes:		
Items that may be reclassified subsequently to income:		
Change in unrealized foreign currency translation gains (losses):		
Unrealized gains (losses)	**785**	(199)
Change in unrealized gains (losses) on available-for-sale assets:		
Unrealized gains (losses)	**(1,041)**	(233)
Reclassifications to net income (loss)	**(43)**	(120)
Change in unrealized gains (losses) on cash flow hedges:		
Unrealized gains (losses)	**(20)**	30
Reclassifications to net income (loss)	**(2)**	(24)
Share of other comprehensive income (loss) in joint ventures and associates:		
Unrealized gains (losses)	**(109)**	(14)
Reclassifications to net income (loss) upon change in ownership interest (Note 16)	**—**	9
Total items that may be reclassified subsequently to income	**(430)**	(551)
Items that will not be reclassified subsequently to income:		
Remeasurement of defined benefit plans	**153**	(55)
Revaluation of property, plant and equipment	**(2)**	—
Total items that will not be reclassified subsequently to income	**151**	(55)
Total other comprehensive income (loss)	**(279)**	(606)
Total comprehensive income (loss)	**1,827**	2,708
Less: Participating policyholders' comprehensive income (loss) (Note 21)	**137**	332
Non-controlling interests' comprehensive income (loss) (Note 26)	**344**	136
Shareholder's comprehensive income (loss)	**$ 1,346**	$ 2,240

Income Taxes Included in Other Comprehensive Income (Loss)

For the years ended December 31, (in millions of Canadian dollars)	2022	2021
Income tax benefit (expense):		
Items that may be reclassified subsequently to income:		
Unrealized foreign currency translation gains (losses)	**$ 4**	$ —
Unrealized gains (losses) on available-for-sale assets	**268**	65
Reclassifications to net income for available-for-sale assets	**4**	14
Unrealized gains (losses) on cash flow hedges	**7**	(11)
Reclassifications to net income for cash flow hedges	**—**	8
Total items that may be reclassified subsequently to income	**283**	76
Items that will not be reclassified subsequently to income:		
Remeasurement of defined benefit plans	**(71)**	13
Revaluation of property, plant and equipment	**(2)**	—
Total items that will not be reclassified subsequently to income	**(73)**	13
Total income tax benefit (expense) included in other comprehensive income (loss)	**$ 210**	$ 89

The attached notes form part of these Consolidated Financial Statements.

Consolidated Statements of Financial Position

As at December 31, (in millions of Canadian dollars)	2022	2021
Assets		
Cash, cash equivalents and short-term securities (Note 5)	**$ 7,079**	$ 7,125
Debt securities (Notes 5 and 6)	**72,898**	85,663
Equity securities (Notes 5 and 6)	**6,968**	8,179
Mortgages and loans (Notes 5 and 6)	**56,250**	51,680
Derivative assets (Notes 5 and 6)	**2,041**	1,567
Other invested assets (Note 5)	**9,077**	8,395
Policy loans (Note 5)	**3,338**	3,247
Investment properties (Note 5)	**9,987**	8,921
Invested assets	**167,638**	174,777
Other assets (Note 8)	**6,320**	4,437
Reinsurance assets (Notes 10 and 11)	**13,326**	13,966
Deferred tax assets (Note 20)	**2,279**	1,777
Loans to related parties (Note 24)	**998**	952
Intangible assets (Note 9)	**1,391**	1,292
Goodwill (Note 9)	**2,086**	2,156
Total general fund assets	**194,038**	199,357
Investments for account of segregated fund holders (Note 22)	**125,242**	139,929
Total assets	**$ 319,280**	$ 339,286
Liabilities and equity		
Liabilities		
Insurance contract liabilities (Note 10)	**$ 140,415**	$ 147,989
Investment contract liabilities (Note 10)	**3,314**	3,368
Derivative liabilities (Notes 5 and 6)	**1,240**	2,351
Deferred tax liabilities (Note 20)	**49**	79
Other liabilities (Note 12)	**20,249**	18,719
Senior debentures (Note 13)	**200**	200
Subordinated debt (Note 14)	**150**	150
Preferred shares (Note 15)	**2,750**	2,750
Total general fund liabilities	**168,367**	175,606
Insurance and investment contracts for account of segregated fund holders (Note 22)	**125,242**	139,929
Total liabilities	**$ 293,609**	$ 315,535
Equity		
Issued share capital and contributed surplus	**$ 7,060**	$ 6,387
Retained earnings and accumulated other comprehensive income	**14,115**	13,186
Total shareholder's equity	**21,175**	19,573
Participating policyholders' equity	**1,837**	1,700
Non-controlling interests' equity (Note 26)	**2,659**	2,478
Total equity	**$ 25,671**	$ 23,751
Total liabilities and equity	**$ 319,280**	$ 339,286
Exchange rates at the end of the reporting periods: U.S. dollars	**1.35**	1.26

The attached notes form part of these Consolidated Financial Statements.

Approved on behalf of the Board of Directors on February 8, 2023.

Kevin Strain
Chief Executive Officer

Barbara G. Stymiest
Director

Consolidated Statements of Changes in Equity

For the years ended December 31, (in millions of Canadian dollars)	2022	2021
Shareholder:		
Preferred shares (Note 15)		
Balance, beginning and end of year	**$ 701**	$ 701
Common shares (Note 15)		
Balance, beginning of year	**3,835**	2,495
Common shares issued	**—**	1,340
Balance, end of year	**3,835**	3,835
Contributed surplus		
Balance, beginning of year	**1,851**	1,828
Capital contribution from shareholder (Note 24)	**673**	23
Balance, end of year	**2,524**	1,851
Retained earnings		
Balance, beginning of year	**12,376**	11,429
Net income (loss)	**1,825**	2,823
Dividends on common shares	**(400)**	(1,850)
Dividends on preferred shares (Note 15)	**(32)**	(31)
Impact of related party transactions (Note 24)	**15**	5
Balance, end of year	**13,784**	12,376
Accumulated other comprehensive income (loss), net of taxes (Note 26)		
Balance, beginning of year	**810**	1,393
Total other comprehensive income (loss) for the year	**(479)**	(583)
Balance, end of year	**331**	810
Total shareholder's equity, end of year	**$ 21,175**	$ 19,573
Participating policyholders:		
Balance, beginning of year	**$ 1,700**	$ 1,368
Net income (loss) (Note 21)	**116**	335
Total other comprehensive income (loss) for the year (Note 26)	**21**	(3)
Total participating policyholders' equity, end of year	**$ 1,837**	$ 1,700
Non-controlling interests:		
Balance, beginning of year	**$ 2,478**	$ 2,494
Net income (loss)	**165**	156
Distribution to non-controlling interests	**(163)**	(152)
Total other comprehensive income (loss) for the year (Note 26)	**179**	(20)
Total non-controlling interests' equity, end of year	**$ 2,659**	$ 2,478
Total equity	**$ 25,671**	$ 23,751

The attached notes form part of these Consolidated Financial Statements.

Consolidated Statements of Cash Flows

For the years ended December 31, (in millions of Canadian dollars)	2022	2021
Cash flows provided by (used in) operating activities		
Income (loss) before income taxes	**$ 2,419**	$ 3,640
Adjustments:		
Interest expense related to financing activities	**181**	195
Increase (decrease) in insurance and investment contract liabilities	**(11,037)**	2,424
Decrease (increase) in reinsurance assets	**1,530**	581
Realized and unrealized (gains) losses and foreign currency changes on invested assets	**17,672**	1,638
Changes in reinsurance arrangements with related parties	**123**	55
Sales, maturities and repayments of invested assets	**49,382**	51,791
Purchases of invested assets	**(55,108)**	(57,503)
Income taxes received (paid)	**(420)**	(571)
Mortgage securitization (Note 5)	**151**	95
Other operating activities	**(3,159)**	(2,018)
Net cash provided by (used in) operating activities	**1,734**	327
Cash flows provided by (used in) investing activities		
Net (purchase) sale of property and equipment	**46**	(67)
Investment in and transactions with joint ventures and associates (Note 16)	**(69)**	(28)
Dividends and other proceeds relating to joint ventures and associates (Note 16)	**27**	382
Acquisitions, net of cash and cash equivalents acquired (Note 3)	**—**	(5)
Cash (paid) received from related party transactions (Note 24)	**—**	22
Other investing activities	**(182)**	(629)
Net cash provided by (used in) investing activities	**(178)**	(325)
Cash flows provided by (used in) financing activities		
Increase in (repayment of) borrowed funds (Note 12)	**3**	31
Redemption of preferred shares (Note 15)	**—**	(742)
Issuance of common shares	**—**	1,340
Capital contribution from shareholder (Note 24)	**673**	23
Transactions with non-controlling interests	**(163)**	(152)
Dividends paid on common and preferred shares	**(432)**	(1,881)
Payment of lease liabilities	**(100)**	(102)
Interest expense paid	**(180)**	(195)
Net cash provided by (used in) financing activities	**(199)**	(1,678)
Changes due to fluctuations in exchange rates	**106**	(16)
Increase (decrease) in cash and cash equivalents	**1,463**	(1,692)
Net cash and cash equivalents, beginning of year	**4,225**	5,917
Net cash and cash equivalents, end of year	**5,688**	4,225
Short-term securities, end of year (Note 5)	**1,385**	2,767
Net cash, cash equivalents and short-term securities, end of year (Note 5)	**$ 7,073**	$ 6,992

The attached notes form part of these Consolidated Financial Statements.

Notes to the Consolidated Financial Statements

(Amounts in millions of Canadian dollars, except for per share amounts and where otherwise stated. All amounts stated in U.S. dollars are in millions.)

1. Significant Accounting Policies

Description of Business

Sun Life Assurance Company of Canada ("Sun Life Assurance") and its subsidiaries are collectively referred to as "us", "our", "ours", "we", or "the Company". Sun Life Assurance is a wholly-owned subsidiary of Sun Life Financial Inc. ("SLF Inc.").

We are an internationally diversified financial services organization providing savings, retirement and pension products, and life and health insurance to individuals and groups through our operations in Canada, the United States ("U.S."), Asia, and the United Kingdom ("UK"). Sun Life Assurance is registered under the *Insurance Companies Act* (Canada), which is administered by the Office of the Superintendent of Financial Institutions, Canada ("OSFI").

Statement of Compliance

We prepared our Consolidated Financial Statements in accordance with International Financial Reporting Standards ("IFRS") as issued and adopted by the International Accounting Standards Board ("IASB"). Our accounting policies have been applied consistently within our Consolidated Financial Statements.

Basis of Presentation

Our Consolidated Statements of Financial Position are presented in the order of liquidity and each statement of financial position line item includes both current and non-current balances, as applicable.

We have defined our reportable business segments and the amounts disclosed for those segments based on our management structure and the manner in which our internal financial reporting is conducted. Transactions between segments are executed and priced on an arm's-length basis in a manner similar to transactions with third parties.

The significant accounting policies used in the preparation of our Consolidated Financial Statements are summarized below and are applied consistently.

Estimates, Assumptions and Judgments

The application of our accounting policies requires estimates, assumptions and judgments as they relate to matters that are inherently uncertain. We have established procedures to ensure that our accounting policies are applied consistently and that the processes for changing methodologies for determining estimates are controlled and occur in an appropriate and systematic manner.

Use of Estimates and Assumptions

The preparation of our Consolidated Financial Statements requires us to make estimates and assumptions that affect the application of our policies and the reported amounts of assets, liabilities, revenue and expenses. Key sources of estimation uncertainty include the measurement of insurance contract liabilities and investment contract liabilities, determination of fair value, impairment of financial instruments, determination and impairment of goodwill and intangible assets, determination of provisions and liabilities for pension plans, other post-retirement benefits, income taxes, and the determination of fair value of share-based payments. Actual results may differ from our estimates thereby impacting our Consolidated Financial Statements. Information on our use of estimates and assumptions are discussed in this Note.

Judgments

In preparation of these Consolidated Financial Statements, we use judgments to select assumptions and determine estimates as described above. We also use judgment when applying accounting policies and when determining the classification of insurance contracts, investment contracts and service contracts; the substance of whether our relationship with a structured entity, subsidiary, joint venture or associate constitutes control, joint control or significant influence; functional currencies; contingencies; acquisitions; deferred income tax assets; and the determination of cash generating unit ("CGU").

COVID-19 Pandemic Considerations

In early 2020, the world was impacted by COVID-19, which was declared a global pandemic by the World Health Organization. The overall impact of the COVID-19 pandemic is still uncertain and dependent on the progression of the virus and on actions taken by governments, businesses and individuals, which could vary by country and result in differing outcomes.

The application of our accounting policies requires estimates, assumptions and judgments as they relate to matters that are inherently uncertain. We have established procedures to ensure that our accounting policies are applied consistently and that the processes for changing methodologies for determining estimates are controlled and occur in an appropriate and systematic manner. For our insurance contract liabilities, no material COVID-19 specific provisions or adjustments to our long-term assumptions have been made, and we continue to monitor our experience and exposure to the COVID-19 pandemic.

Significant estimates and judgments have been made in the following areas and are discussed as noted:

Insurance contract and investment contract assumptions and measurement	Note 1 Insurance Contract Liabilities and Investment Contract Liabilities Note 10 Insurance Contract Liabilities and Investment Contract Liabilities
Determination of fair value	Note 1 Basis of Consolidation Note 1 Determination of Fair Value Note 3 Acquisition and Other Note 5 Total Invested Assets and Related Net Investment Income
Impairment of financial instruments	Note 1 Financial Assets Excluding Derivative Financial Instruments Note 6 Financial Instrument Risk Management
Income taxes	Note 1 Income Taxes Note 20 Income Taxes
Pension plans	Note 1 Pension Plans and Other Post-Retirement Benefits Note 25 Pension Plans and Other Post-Retirement Benefits
Goodwill and intangible assets on acquisition and impairment	Note 1 Goodwill Note 1 Intangible Assets Note 3 Acquisition and Other Note 9 Goodwill and Intangible Assets
Determination of control for purpose of consolidation	Note 1 Basis of Consolidation Note 16 Interests in Other Entities

Basis of Consolidation

Our Consolidated Financial Statements include the results of operations and the financial position of subsidiaries, which includes structured entities controlled by us, after intercompany balances and transactions have been eliminated. Subsidiaries are fully consolidated from the date we obtain control, and deconsolidated on the date control ceases. The acquisition method is used to account for the acquisition of a subsidiary from an unrelated party at the date that control is obtained, with the difference between the consideration transferred and the fair value of the subsidiary's net identifiable assets acquired recorded as goodwill. Judgment is required to determine fair value of the net identifiable assets acquired in a business combination. Interests in controlled entities held by external parties are reported as non-controlling interests ("NCI").

We control an entity when we have power over an entity, exposure to or rights to variable returns from our involvement with an entity, and the ability to affect our returns through our power over an entity. Power exists when we have rights that give us the ability to direct the relevant activities, which are those activities that could significantly affect the entity's returns. Power can be obtained through voting rights or other contractual arrangements. Judgment is required to determine the relevant activities and which party has power over these activities. When we have power over and variable returns from an entity, including an investment fund that we manage, we also apply significant judgment in determining whether we are acting as a principal or agent. To make this determination, we consider factors such as how much discretion we have regarding the management of the investment fund and the magnitude and extent of variability associated with our interests in the fund. If we determine we are the principal rather than the agent, we would consolidate the assets and liabilities of the fund. Interests held by external parties in entities that we consolidate are recorded as Non-controlling interests in our Consolidated Statements of Changes in Equity. If we lose control of an entity, the assets and liabilities of that entity are derecognized from our Consolidated Statements of Financial Position at the date at which control is lost and any investment retained is remeasured to fair value.

A joint venture exists when Sun Life Assurance, or one of its subsidiaries, has joint control of a joint arrangement and has rights to the net assets of the arrangement. Joint control is the contractually agreed sharing of control and exists only when the decisions about the relevant activities require the unanimous consent of the parties sharing control. Associates are entities over which Sun Life Assurance or its subsidiaries are able to exercise significant influence. Significant influence is the power to participate in the financial and operating policy decisions of an investee but not have control or joint control over those decisions. Significant influence is generally presumed to exist when Sun Life Assurance or its subsidiaries holds greater than 20% of the voting power of the investee but does not have control or joint control. The equity method is used to account for our interests in joint ventures and associates. A joint operation exists when Sun Life Assurance, or one of its subsidiaries, has joint control of an arrangement that gives it rights to the assets and obligations for the liabilities of the operation, rather than the net assets of the arrangement. For joint operations, we record our share of the assets, liabilities, revenue and expenses of the joint operation. Judgment is required to determine whether contractual arrangements between multiple parties results in control, joint control or significant influence, with consideration of the relevant activities of the entity, voting rights, representation on boards of directors and other decision-making factors. Judgment is also required to determine if a joint arrangement is a joint venture or joint operation, with consideration of our rights and obligations and the structure and legal form of the arrangement.

Determination of Fair Value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. Fair value is measured using the assumptions that market participants would use when pricing an asset or liability. We determine fair value by using quoted prices in active markets for identical or similar assets or liabilities. When quoted prices in active markets are not available, fair value is determined using valuation techniques that maximize the use of observable inputs. When observable valuation inputs are not available, significant judgment is required to determine fair value by assessing the valuation techniques and valuation inputs. The use of alternative valuation techniques or valuation inputs may result in a different fair value. A description of the fair value methodologies, assumptions, valuation techniques, and valuation inputs by type of asset is included in Note 5.

Foreign Currency Translation

Translation of Transactions in Foreign Currencies

The financial results of Sun Life Assurance and its subsidiaries, joint ventures and associates are prepared in the currency in which they conduct their ordinary course of business, which is referred to as functional currency. Transactions occurring in currencies other than the functional currency are translated to the functional currency using the spot exchange rates at the dates of the transactions.

Monetary assets and liabilities in foreign currencies are translated to the functional currency at the exchange rate at the statement of financial position date. Non-monetary assets and liabilities in foreign currencies that are held at fair value are translated using the exchange rate at the statement of financial position date, while non-monetary assets and liabilities that are measured at historical cost are translated using the exchange rate at the date of the transaction.

The resulting exchange differences from the translation of monetary items and non-monetary items held at fair value, with changes in fair value recorded to income, are recognized in our Consolidated Statements of Operations. For monetary assets classified as available-for-sale ("AFS"), translation differences calculated on amortized cost are recognized in our Consolidated Statements of Operations and other changes in carrying amount are recognized in other comprehensive income (“OCI”). The exchange differences from the translation of non-monetary items classified as AFS are recognized in OCI.

Translation to the Presentation Currency

In preparing our Consolidated Financial Statements, the financial statements of foreign operations are translated from their respective functional currencies to Canadian dollars, our presentation currency. Assets and liabilities are translated at the closing exchange rate at the statement of financial position date, and income and expenses are translated using the average exchange rates. The accumulated gains or losses arising from translation of functional currencies to the presentation currency, net of the effect of any hedges, are included as a separate component of OCI within equity. Upon disposal of a foreign operation that includes loss of control, significant influence or joint control, the cumulative exchange gain or loss related to that foreign operation is recognized in income.

Invested Assets

Financial Assets Excluding Derivative Financial Instruments

Financial assets include cash, cash equivalents and short-term securities, debt securities, equity securities, mortgages and loans, financial assets included in other invested assets and policy loans. Financial assets are designated as financial assets at fair value through profit or loss (“FVTPL”) or AFS assets, or are classified as loans and receivables at initial recognition.

The following table summarizes the financial assets included in our Consolidated Statements of Financial Position and the asset classifications applicable to these assets:

Cash, cash equivalents and short-term securities	FVTPL
Debt securities	FVTPL and AFS
Equity securities	FVTPL and AFS
Mortgages and loans	Loans and receivables
Other invested assets	FVTPL and AFS
Policy loans	Loans and receivables

Mortgages and loans include mortgages, loans and debt securities not quoted in an active market. Financial assets included in Other invested assets include investments in limited partnerships, segregated funds and mutual funds. Cash equivalents are highly liquid instruments with a term to maturity of three months or less, while short-term securities have a term to maturity exceeding three months but less than one year. Policy loans are fully secured by the policy values on which the loans are made. The accounting for each asset classification is described in the following sections.

i) Initial Recognition and Subsequent Measurement

Generally, debt securities, equity securities and other invested assets supporting our insurance contract liabilities or investment contract liabilities measured at fair value are designated as FVTPL, while debt securities, equity securities and other invested assets not supporting our insurance contract liabilities or that are supporting investment contract liabilities are measured at amortized cost or designated as AFS. Mortgages and loans and policy loans are classified as loans and receivables. Financial assets are recognized in the Consolidated Statements of Financial Position on their trade dates, which are the dates that we commit to purchase or sell the assets. Originated mortgages and loans are recognized in the Consolidated Statements of Financial Position on their funding dates.

Financial Assets at Fair Value Through Profit or Loss

Financial assets at FVTPL include financial assets that are held-for-trading (“HFT”), as well as financial assets that have been designated as FVTPL at initial recognition. A financial asset is classified as HFT if it is acquired principally for the purpose of selling in the near term. A financial asset can be designated as FVTPL if it eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise from measuring assets or liabilities or recognizing the gains and losses on them on different bases; or if a group of financial assets, financial liabilities or both, is managed and its performance is evaluated on a fair value basis. Cash equivalents and short-term securities have been classified as HFT.

Generally, debt securities, equity securities and other invested assets supporting insurance contract liabilities or investment contract liabilities measured at fair value have been designated as FVTPL. This designation has been made to eliminate or significantly reduce the measurement inconsistency that would arise due to the measurement of the insurance contract or investment contract liabilities, which are based on the carrying value of the assets supporting those liabilities. Because the carrying value of insurance contract liabilities is determined by reference to the assets supporting those liabilities, changes in the insurance contract liabilities generally offset changes in the fair value of debt securities classified as FVTPL, except for changes that are due to impairment. The majority of equity securities and other invested assets classified as FVTPL are held to support products where investment returns are passed through to policyholders and therefore, changes in the fair value of those assets are significantly offset by changes in insurance contract liabilities.

Financial assets classified as FVTPL are recorded at fair value in our Consolidated Statements of Financial Position and transaction costs are expensed immediately. Changes in fair value as well as realized gains and losses on sale are recorded in Fair value and foreign currency changes on assets and liabilities in our Consolidated Statements of Operations. Interest income earned and dividends received are recorded in Interest and other investment income in our Consolidated Statements of Operations.

Available-for-Sale Financial Assets

Financial assets classified as AFS are recorded at fair value in our Consolidated Statements of Financial Position and transaction costs are capitalized on initial recognition. Transaction costs for debt securities are recognized in income using the effective interest method, while transaction costs for equity securities and other invested assets are recognized in income when the asset is derecognized. Changes in fair value are recorded to unrealized gains and losses in OCI. For foreign currency translation, exchange differences calculated on the amortized cost of AFS debt securities are recognized in income and exchange differences calculated on other changes in carrying amount are recognized in OCI. The exchange differences from the translation of AFS equity securities and other invested assets are recognized in OCI. Interest income earned and dividends received are recorded in Interest and other investment income in our Consolidated Statements of Operations. Net impairment losses and realized gains and losses on the sale of assets classified as AFS are reclassified from accumulated OCI to Net gains (losses) on available-for-sale assets in our Consolidated Statements of Operations.

Loans and Receivables

Loans and receivables are generally carried at amortized cost. Transaction costs for mortgages and loans are capitalized on initial recognition and are recognized in income using the effective interest method. Realized gains and losses on the sale of mortgages and loans, interest income earned, and fee income are recorded in Interest and other investment income in our Consolidated Statements of Operations.

Solely Payments of Principal and Interest ("SPPI") Disclosures

In September 2016, the IASB issued *Amendments to IFRS 4* to allow insurance entities whose predominant activities are to issue contracts within the scope of IFRS 4 *Insurance Contracts* ("IFRS 4") an optional temporary exemption from applying IFRS 9 *Financial Instruments* ("IFRS 9") ("deferral approach"). We qualify and have elected to take the deferral approach as our activities are predominantly connected with insurance and we will continue to apply IAS 39 *Financial Instruments: Recognition and Measurement* ("IAS 39"), the existing financial instrument standard.

To enable a comparison to entities applying IFRS 9, entities that apply the IFRS 9 deferral approach are required to provide fair value disclosures separately for (i) those financial assets that pass the SPPI test and (ii) all other financial assets. Financial assets that pass the SPPI test are assets with contractual terms that give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. We use Canadian Asset Liability Method ("CALM") to value our insurance contract liabilities, therefore the impact on net income in our Consolidated Statements of Operations of classifying assets supporting those liabilities as SPPI or non-SPPI is not material. For assets not supporting insurance contract liabilities, substantially all of these assets pass the SPPI test under IFRS 9.

ii) Derecognition

Financial assets are derecognized when our rights to contractual cash flows expire, when we transfer substantially all our risks and rewards of ownership, or when we no longer retain control.

iii) Impairment

Financial assets are assessed for impairment on a quarterly basis. Financial assets are impaired and impairment losses are incurred if there is objective evidence of impairment as a result of one or more loss events and that event has an impact on the estimated future cash flows that can be reliably estimated. Objective evidence of impairment generally includes significant financial difficulty of the issuer, including actual or anticipated bankruptcy or defaults and delinquency in payments of interest or principal or disappearance of an active market for that financial asset. Objective evidence of impairment for an investment in an equity instrument or other invested asset also includes, but is not limited to, the financial condition and near-term prospects of the issuer, including information about significant changes with adverse effects that have taken place in the technological, market, economic, or legal environment in which the issuer operates that may indicate that the carrying amount will not be recovered, and a significant or prolonged decline in the fair value of an equity instrument or other invested asset below its cost. Management exercises considerable judgment in assessing for objective evidence of impairment. Due to the inherent risks and uncertainties in our evaluation of assets or groups of assets for objective evidence of impairment, the actual impairment amount and the timing of the recognition of impairment may differ from management assessment. The impairment assessment process is discussed in Note 6.

Financial Assets at Fair Value Through Profit or Loss

Since financial assets classified as FVTPL are carried at fair value with changes in fair value recorded to income, any reduction in value of the assets due to impairment is already reflected in income. However, the impairment of assets classified as FVTPL generally impacts the change in insurance contract liabilities due to the impact of asset impairment on estimates of future cash flows.

Available-for-Sale Financial Assets

When there is objective evidence that a financial asset classified as AFS is impaired, the loss in accumulated OCI is reclassified to Net gains (losses) on available-for-sale assets in our Consolidated Statements of Operations. Following impairment loss recognition, a debt security continues to be carried at fair value with changes in fair value recorded in OCI, and it is assessed quarterly for further impairment loss or reversal. Subsequent losses on an impaired equity security or other invested asset, including losses relating to foreign currency changes, are reclassified from OCI to income in subsequent reporting periods until the asset is derecognized. Once an impairment loss on a debt security classified as AFS is recorded to income, any reversal of impairment loss through income occurs only when the recovery in fair value is objectively related to an event occurring after the impairment was recognized. Impairment losses on an equity security or other invested asset classified as AFS are not reversed through income.

Loans and Receivables

If an impairment loss on an individual mortgage or loan has been incurred, the amount of the loss is measured as the difference between the asset’s carrying amount and the present value of the estimated future cash flows discounted at the asset’s original effective interest rate. For collateralized financial assets, the present value of the estimated future cash flows reflects the cash flows that may result from foreclosure less costs to sell, whether or not foreclosure is probable. If no evidence of impairment exists for an individually assessed mortgage or loan, it is included in a group of loans with similar credit risk characteristics and collectively assessed for impairment.

When an impairment loss has been incurred, the carrying amount of the asset is reduced through the use of an allowance account, and the amount of the loss is recognized in income. If the impairment loss subsequently decreases and the decrease can be related objectively to an event occurring after the initial impairment charge was recognized, the previous impairment charge is reversed by adjusting the allowance account and the reversal is recognized in income. Interest income is recognized on impaired mortgages and loans using the effective interest rate method and it is based on the estimated future cash flows used to measure the impairment loss. Changes in the allowance account, other than write-offs net of recoveries, are charged against Interest and other investment income in our Consolidated Statements of Operations. Write-offs, net of recoveries, are deducted from the allowance account when there is no realistic prospect of recovery, which is typically not before derecognition of the asset through foreclosure or sale.

Collateral

Cash received (pledged) as collateral is recognized (derecognized) in our Consolidated Statements of Financial Position with corresponding amounts recognized in Other liabilities (Other assets), respectively. All other types of assets received (pledged) as collateral are not recognized (derecognized) in our Consolidated Statements of Financial Position.

Derivative Financial Instruments

All derivative financial instruments are recorded at fair value in our Consolidated Statements of Financial Position. Derivatives with a positive fair value are recorded as Derivative assets while derivatives with a negative fair value are recorded as Derivative liabilities.

The accounting for the changes in fair value of a derivative instrument depends on whether or not it is designated as a hedging instrument for hedge accounting purposes. Changes in (i) fair value of derivatives that are not designated for hedge accounting purposes, which are defined as derivative investments, and (ii) embedded derivatives that are bifurcated, are recorded in Fair value and foreign currency changes on assets and liabilities in our Consolidated Statements of Operations. Income earned or paid on these derivatives is recorded in Interest and other investment income in our Consolidated Statements of Operations. Hedge accounting is applied to certain derivatives to reduce income statement volatility. When certain qualification criteria are met, hedge accounting recognizes the offsetting effects of hedging instruments and hedged items in income or defers the effective portion of changes in fair value of hedging instruments in OCI until there is a recognition event, such as the occurrence of a forecasted transaction or the disposal of an investment in a foreign operation, or hedge accounting is discontinued. All hedging relationships are documented at inception and hedge effectiveness is assessed at inception and on a quarterly basis to determine whether the hedging instruments are highly effective in offsetting changes attributable to the hedged risk in the fair value or cash flows of the hedged items.

Fair Value Hedges

Certain interest rate swaps and foreign currency forwards are designated as hedging instruments in fair value hedges of the interest rate or foreign exchange rate risks associated with AFS assets. Changes in fair value of the derivatives are recorded in Interest and other investment income in our Consolidated Statements of Operations. The change in fair value of the AFS assets related to the hedged risk is reclassified from OCI to income. As a result, ineffectiveness, if any, is recognized in income to the extent that changes in fair value of the derivatives and AFS assets do not offset. Interest income earned and paid on the AFS assets and swaps in the fair value hedging relationships are recorded in Interest and other investment income in our Consolidated Statements of Operations.

Cash Flow Hedges

Certain equity and foreign currency forwards are designated as hedging instruments in cash flow hedges for anticipated payments of awards under certain share-based payment plans and for anticipated foreign currency purchases of foreign operations. Changes in the fair value of derivatives for the effective portion of the hedge are recognized in OCI, while the ineffective portion of the hedge and any items excluded from the hedging relationship, such as the spot-to-forward differential, are recognized in Interest and other investment income in our Consolidated Statements of Operations. A portion of the amount recognized in OCI related to the equity forwards is reclassified to income as a component of Operating expenses as the liabilities for the share-based payment awards are accrued over the vesting period. A portion of the amounts recognized in OCI related to the foreign currency forwards would be reclassified to income upon disposal or impairment of the foreign operations. All amounts recognized in, or reclassified from, OCI are net of related taxes.

Embedded Derivatives

An embedded derivative is a component of a host contract that modifies the cash flows of the host contract in a manner similar to a derivative, according to a specified interest rate, financial instrument price, foreign exchange rate, underlying index or other variable. We are required to separate embedded derivatives from the host contract, if an embedded derivative has economic and risk characteristics that are not closely related to the host contract, meets the definition of a derivative, and the combined contract is not measured at fair value with changes recognized in income. If an embedded derivative is bifurcated for accounting purposes from the host contract, it will be accounted for as a derivative. For further details on embedded derivatives in insurance contracts, see the Insurance Contract Liabilities accounting policy in this Note.

Obligations for Securities Borrowing

The obligation for the securities borrowing represents our commitment to deliver securities under short sale program. Under the program, we short sell the securities that we borrowed from a third party. The obligation to return the securities is not recognized in the Consolidated Statements of Financial Position, until they are sold, and the risks and rewards of the ownership have been transferred to us. Upon recognition, they are classified as HFT. The securities borrowings are returnable to the lender upon demand or at our discretion.

Investment Properties

Investment properties are real estate held to earn rental income, for capital appreciation, or both. Properties held to earn rental income or for capital appreciation that have an insignificant portion that is owner-occupied are classified as investment properties. Properties that do not meet these criteria are classified as property and equipment, included in Other assets as described below. Expenditures related to ongoing maintenance of properties incurred subsequent to acquisition are expensed. Investment properties are initially recognized at cost in our Consolidated Statements of Financial Position. Various costs incurred associated with the acquisition of an investment property are either capitalized or expensed depending on whether or not the acquisition is considered a business combination. Investment properties are subsequently measured at fair value with changes in value recorded to Fair value and foreign currency changes on assets and liabilities in our Consolidated Statements of Operations.

When the use of a property changes from owner-occupied to investment property, any gain arising on the remeasurement of the property to fair value at the date of transfer is recognized in our Consolidated Statements of Operations to the extent that it reverses a previous impairment loss. Any remaining increase is recognized in OCI.

Other Invested Assets – Non-Financial Assets

Other invested assets also include non-financial assets such as investments in joint ventures and associates, which are accounted for using the equity method. Investments in joint ventures and associates are initially recorded at cost. The investment in joint ventures and associates is increased by our share of capital contributions and for purchases of additional interests and is reduced by distributions received. In addition, subsequent adjustments to the investment are made for our share of net income or loss and our share of OCI. Our share of net income is recorded in Interest and other investment income in our Consolidated Statements of Operations and our share of OCI is recorded in our Consolidated Statements of Comprehensive Income (Loss). Impairment losses on equity method investments are recognized when events or changes in circumstances indicate that they are impaired. The impairment loss recognized is the difference between the carrying amount and the recoverable amount.

Other Assets

Other assets, which are measured at amortized cost, include accounts receivable, investment income due and accrued, deferred acquisition costs, property and equipment, and lessee’s right-of-use assets. Deferred acquisition costs arising from service contracts or from service components of investment contracts are amortized over the expected life of the contracts based on the future expected fees. Owner-occupied properties are amortized to their residual value over 25 to 49 years. Furniture, computers, other office equipment, and leasehold improvements are amortized to their residual value over 2 to 20 years. The right-of-use asset is subsequently depreciated on a straight-line basis over the lease term.

Reinsurance Assets

In the normal course of business, we use reinsurance to limit exposure to large losses. We have a retention policy that requires that such arrangements be placed with well-established, highly-rated reinsurers. Reinsurance assets are measured consistently with the amounts associated with the underlying insurance contracts and in accordance with the terms of each reinsurance contract. Amounts due to or from reinsurers with respect to premiums received or paid claims are included in Other assets and Other liabilities in the Consolidated Statements of Financial Position. Premiums for reinsurance ceded are presented as premiums ceded in the Consolidated Statements of Operations. Reinsurance expenses (recoveries), as presented in our Consolidated Statements of Operations, represent reinsurance expenses and expense recoveries resulting from reinsurance agreements.

Reinsurance assets are subject to impairment testing. If impaired, the carrying value is reduced, and an impairment loss is recognized in Reinsurance expenses (recoveries) in our Consolidated Statements of Operations. Impairment occurs when objective evidence exists (as a result of an event) after the initial recognition of the reinsurance asset indicating that not all amounts due under the terms of the contract will be received, and the impairment can be reliably measured.

Reinsurance assumed is accounted for as an insurance, investment or service contract depending on the underlying nature of the agreement and if it meets the definition of an insurance, investment or service contract. For the accounting for these types of contracts, see the respective policy section in this Note.

Leases

At inception of a contract, we assess whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. For leases where we act as the lessee, we recognize a right-of-use asset and a lease liability at the commencement date of the lease. For leases where we act as the lessor, we assess whether the leases should be classified as finance or operating leases. Our leases are classified as operating leases. Operating leases are recognized into income on a straight-line basis.

The right-of-use asset is initially measured at cost, which is comprised of the initial amount of the lease liability with certain adjustments, and subsequently depreciated using the straight-line method, with depreciation expense included in Operating expenses in the Consolidated Statements of Operations. The right-of-use asset is depreciated to the earlier of the lease term and its useful life. The right-of-use asset is assessed for impairment under IAS 36 *Impairment of Assets*. Right-of-use assets are assessed for indicators of impairment at each reporting period. If there is an indication that a right-of-use asset may be impaired, an impairment test is performed by comparing the asset's carrying amount to its recoverable amount. If an impairment loss has been incurred, the carrying value of the right-of-use asset is reduced with the corresponding amount recognized in income.

The lease liability is initially measured at the present value of lease payments over the term of the lease using a discount rate that is based on our incremental borrowing rate. The discount rate is specific to each lease and is determined by various factors, such as the lease term and currency. The lease term includes the non-cancellable period and the optional period where it is reasonably certain we will exercise an extension or termination option, considering various factors that create an economic incentive to do so. Subsequently, the lease liability is measured at amortized cost using the effective interest method, with interest charged to Interest expense in the Consolidated Statements of Operations. Lease liabilities and right-of-use assets are remeasured upon lease modifications. A lease modification is considered as a change in the scope of a lease, or the consideration for a lease, that was not part of the original terms and conditions of the lease.

Intangible Assets

Intangible assets consist of finite life intangible assets. Finite life intangible assets are amortized on a straight-line basis or using a units-of-production method, over the useful economic lives which are varying periods of up to 40 years. Amortization is charged through operating expenses. The useful lives of finite life intangible assets are reviewed annually, and the amortization is adjusted as necessary.

Goodwill

Goodwill represents the excess of the cost of an acquisition over the fair value of the net identifiable tangible and intangible assets of the acquired businesses. It is carried at original cost less any impairment subsequently incurred. Goodwill is assessed for impairment annually or more frequently if events or circumstances occur that may result in the recoverable amount of a CGU or a group of CGUs falling below its carrying value. A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of cash inflows from other groups of assets. We exercise significant judgment in determining our CGUs. The factors considered in determining our CGUs include product cash inflows, product distribution, target markets, and how management monitors and evaluates the operations.

The goodwill balances are allocated to either individual or groups of CGUs that are expected to benefit from the synergies of the business combination. Goodwill impairment is quantified by comparing a CGU's or a group of CGUs' carrying value to its recoverable amount, which is the higher of fair value less costs of disposal and value in use. Impairment losses are recognized immediately and cannot be reversed in future periods. Significant judgment is involved in estimating the model inputs used to determine the recoverable amount of our CGUs or group of CGUs, including those for discount rates, capital, the value of new business, expenses, cash flow projections, and market multiples, due to the uncertainty and the forward-looking nature of these inputs. The assumptions may differ from the actual experience, and estimates may change from period to period based on future events or revisions of assumptions. These key assumptions are discussed in Note 9.

Insurance Contract Liabilities

Insurance contracts are contracts under which we accept significant insurance risk from a policyholder by agreeing to compensate the policyholder if a specified uncertain future event adversely affects the policyholder. The presence of significant insurance risk in individual contracts is assessed by reviewing books of contracts with homogeneous risk features. Judgment is required to determine the classification of a contract as an insurance contract, investment contract or a service contract.

As discussed in the Segregated Funds section of this Note, certain insurance contracts under which the policyholder bears the risks associated with the underlying investments are classified as Insurance contracts for account of segregated fund holders in our Consolidated Statements of Financial Position.

Insurance contract liabilities, including policy benefits payable and provisions for policyholder dividends, are determined in accordance with Canadian accepted actuarial practice and any requirements of OSFI. As confirmed by guidance provided by the Canadian Institute of Actuaries ("CIA"), the current CALM valuation of insurance contract liabilities satisfies the IFRS 4 requirements for eligibility for use under IFRS. Under CALM, liabilities are set equal to the statement of financial position value of the assets required to support them.

Some insurance contracts contain discretionary participation features ("DPF"), whereby the policyholder has the right to receive potentially significant additional benefits based on the actual investments and other experience on a block of similar contracts. IFRS allows the non-guaranteed, or participating, elements of such contracts to be classified as either a liability or as equity, depending on the nature of our obligation to the policyholder. The contracts issued by us contain constructive obligations to the policyholder with respect to the DPF of the contracts. We have therefore elected to classify these features as a liability, consistent with accounting treatment under CALM, and in accordance with guidance provided by the CIA.

Derivatives embedded in insurance contracts are treated as separate derivatives and measured at fair value with changes in fair value recognized in income, except when the embedded derivative itself meets the definition of an insurance contract under IFRS, or when the risks and characteristics are closely related to those of the host contracts or when the derivative is the policyholder's option to surrender an insurance contract for a fixed amount or an amount based on a fixed amount and an interest rate. The derivatives that have not been separated are accounted for as insurance contract liabilities.

Significant judgment is required in determining our liabilities for insurance contracts including the assumptions required for their determination. Application of different assumptions may result in different measurement of the insurance contract liabilities. Actual experience may differ from assumptions, and estimates may change from period to period based on future events or revisions of assumptions. Key assumptions and considerations in choosing assumptions are discussed in Note 10 and sensitivities are discussed in Note 7.

Financial Liabilities

Investment Contract Liabilities

Contracts issued by us that do not transfer significant insurance risk, but do transfer financial risk from the policyholder to us, are financial liabilities and are accounted for as investment contracts. Service components of investment contracts are treated as service contracts. For further details on how service components of investment contracts are treated, see the Service Contracts accounting policy in this Note.

Liabilities for investment contracts without DPF are measured at FVTPL or amortized cost. Contracts recorded at FVTPL are measured at fair value at inception and each subsequent reporting period. Contracts recorded at amortized cost are initially recognized at fair value, less transaction costs directly attributable to the issue of the contract. At each subsequent period, the contracts are measured at amortized cost using the effective interest method. Changes in fair value of investment contract liabilities recorded at FVTPL and amortization on contracts recorded at amortized cost are recorded as an Increase (decrease) in investment contract liabilities in our Consolidated Statements of Operations. Deposits collected from and payments made to contract holders are recorded as an increase and decrease in Investment contract liabilities in our Consolidated Statements of Financial Position. These liabilities are derecognized when the obligation of the contract is discharged, cancelled or expired.

As discussed in the Segregated Funds section of this Note, certain investment contracts under which the policyholder bears the risks associated with the underlying investments are classified as Investment contracts for account of segregated fund holders in the Consolidated Statements of Financial Position. The accounting for investment contracts that contain DPF is described in the Insurance Contract Liabilities section of this Note.

Other Liabilities

Other liabilities, which are measured at amortized cost, include accounts payable, lines of credit, repurchase agreements, accrued expenses and taxes, senior financing, provisions and lessee's lease liabilities. Liabilities for provisions, other than insurance contract liabilities and investment contract liabilities, are recognized for present legal or constructive obligations as a result of a past event if it is probable that they will result in an outflow of economic resources and the amount can be reliably estimated. The amounts recognized for these provisions are the best estimates of the expenditures required to settle the present obligations or to transfer them to a third party at the statement of financial position date, considering all the inherent risks and uncertainties, as well as the time value of money. These provisions are reviewed as relevant facts and circumstances change.

The lease liabilities are initially measured at the present value of lease payments over the term of the lease using a discount rate that is based on our incremental borrowing rate. Subsequently, the lease liabilities are measured at amortized cost using the effective interest method.

Senior Debentures, Subordinated Debt and Preferred Shares Liabilities

Senior debentures, subordinated debt and preferred shares liabilities are recorded at amortized cost using the effective interest method. Transaction costs are recorded as part of the liability and are recognized in income using the effective interest method. These liabilities are derecognized when the obligation of the contract is discharged, cancelled or expired.

Service Contracts

Contracts issued by us to customers that do not transfer significant insurance risk and do not transfer financial risk from the customer to us, including contracts for investment management service, are classified as service contracts. Service components of investment contracts are also accounted for as service contracts. Fee income earned from these contracts is described in the Premium and Fee Income Recognition accounting policy section of this Note. Deferred acquisition costs are described under the Other Assets accounting policy section of this Note. Where the cost of meeting the obligations of the contract exceed the economic benefits expected to be received under it, a provision is recognized in Other liabilities.

Segregated Funds

Segregated funds are products for which we issue a contract where the benefit amount is directly linked to the fair value of the investments held in the particular segregated fund. Although the underlying assets are registered in our name and the segregated fund contract holder has no direct access to the specific assets, the contractual arrangements are such that the segregated fund policyholder bears the risks and rewards of the fund's investment performance. In addition, certain contracts include guarantees from us. We derive fee income from segregated funds, which is included in Fee income in our Consolidated Statements of Operations. Policyholder transfers between general funds and segregated funds are included in Net transfer to (from) segregated funds in our Consolidated Statements of Operations. Deposits to segregated funds are reported as increases in segregated funds liabilities and are not reported as revenues in our Consolidated Statements of Operations.

Investments for Account of Segregated Fund Holders

Investments for account of segregated fund holders are recorded separately from the Total general fund assets in our Consolidated Statements of Financial Position and are carried at fair value. Fair values are determined using quoted market values or, where quoted market values are not available, estimated fair values as determined by us.

Insurance and Investment Contracts for Account of Segregated Fund Holders

Insurance contracts for account of segregated fund holders are recorded separately from the Total general fund liabilities in our Consolidated Statements of Financial Position. Insurance contracts under which the segregated fund holders bear the risks associated with the underlying investments are classified as Insurance contracts for account of segregated fund holders. The liabilities reported as Insurance contracts for account of segregated fund holders are measured at the aggregate of the policyholder account balances. Changes in the fair value of the invested assets of the segregated funds are recorded in net realized and unrealized gains (losses) within the segregated fund and are not recorded in our Consolidated Statements of Operations.

Other assets and liabilities associated with these insurance contracts, such as origination costs and the liabilities associated with guarantees provided by us, are included in general fund liabilities in Insurance contract liabilities in our Consolidated Statements of Financial Position.

Investment contracts for account of segregated fund holders are recorded separately from the Total general fund liabilities in our Consolidated Statements of Financial Position. Investment contracts under which the segregated fund holders bear the risks associated with the underlying investments are classified as Investment contracts for account of segregated fund holders. The liabilities reported as Investment contracts for account of segregated fund holders are measured at the aggregate of the policyholder account balances.

Other liabilities associated with these investment contracts, such as onerous contract provisions required for service components, are included in general fund liabilities in Investment contract liabilities in our Consolidated Statements of Financial Position.

Income Taxes

Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities. Deferred income tax is provided using the liability method on temporary differences at the statement of financial position date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes. Current and deferred income tax relating to items recognized in the current or previous period in OCI or directly in equity is accordingly recognized in OCI or equity and not in our Consolidated Statements of Operations. Interest and penalties payable to taxation authorities are recorded in Interest expense and Operating expenses, respectively, in our Consolidated Statements of Operations.

Deferred income tax assets and liabilities are calculated based on income tax rates and laws that are expected to apply when the liability is settled or the asset is realized, which are normally those enacted or considered substantively enacted at our Consolidated Statements of Financial Position dates. Deferred income tax assets are recognized for all deductible temporary differences, carry forward of unused tax credits and unused tax losses to the extent of the probability that future taxable profit will be available against which these assets can be utilized. At each reporting period, we assess all available evidence, both positive and negative, to determine the amount of deferred income tax assets to be recognized. The recognition of deferred income tax assets requires estimates and significant judgment about future events, such as projections of future taxable profits, based on the information available at the reporting date.

The determination of the required provision for current and deferred income taxes requires that we interpret tax legislation in the jurisdictions in which we operate. For each reporting period, our income tax provision reflects our best estimate, based on the information available at the reporting date, of tax positions that are under audit or appeal by relevant tax authorities. To the extent that our estimate of tax positions or the timing of realization of deferred income tax assets or liabilities are not as expected, the provision for income taxes may increase or decrease in the future to reflect the actual experience.

Deferred income tax is provided on temporary differences arising on investments in subsidiaries, joint ventures and associates, except where we control the timing of the reversal of the temporary difference and it is apparent that the temporary difference will not reverse in the foreseeable future. No deferred income tax asset or liability is recognized in relation to temporary differences that arise from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, did not affect either the accounting profit or taxable profit or loss. Deferred income tax assets and deferred income tax liabilities are offset if a legally enforceable right exists to set off current tax assets against current tax liabilities, the deferred income taxes relate to the same taxable entity and the same taxation authority and we intend either to settle on a net basis, or to realize the asset and settle the liability simultaneously.

In determining the impact of taxes, we are required to comply with Canadian accepted actuarial practice and IFRS. CALM requires that all projected cash flows associated with insurance contract liabilities, including income taxes, be included in the determination of insurance contract liabilities. The insurance contract liabilities are therefore determined including all policy-related income tax effects on a discounted basis, and then adjusted for any related deferred income tax assets and liabilities held in accordance with IFRS. The net result of this adjustment is to leave the discounting effect of the deferred income taxes associated with temporary differences on policy-related tax items in the insurance contract liabilities.

Pension Plans and Other Post-Retirement Benefits

For defined benefit plans, the present value of the defined benefit obligation is calculated by independent actuaries using the projected unit credit method, and actuarial assumptions that represent best estimates of future variables that will affect the ultimate cost of these obligations. The discount rate used for our material defined benefit plans is determined with reference to market yields of high-quality corporate bonds that are denominated in the same currency in which the benefits will be paid, and that have terms to maturity approximating the terms of obligations. Plan assets are measured at fair value and are held in separate trustee administered funds or as qualifying insurance contracts. The difference between the fair value of the plan assets and the present value of the defined benefit obligation is recognized on the Consolidated Statements of Financial Position as an asset or liability in Other assets or Other liabilities, respectively.

Costs charged to our Consolidated Statements of Operations include current service cost, any past service costs, any gains or losses from curtailments or settlements, and interest on the net defined benefit liability (asset). Remeasurement of the net defined benefit liability (asset), which includes the impact of changes to the actuarial assumption underlying the liability calculations, liability experience gains or losses, the difference between the return on plan assets and the amount included in the interest on the net defined benefit liability (asset), is reflected immediately in OCI. The calculation of the defined benefit expenses and obligations requires judgment as the recognition is dependent on various actuarial assumptions such as discount rates, health care cost trend rates and projected compensation increases. These key assumptions are discussed in Note 25.

Dividends

Dividends payable to holders of shares of Sun Life Assurance are recognized in the period in which they are authorized or approved.

Premium and Fee Income Recognition

Gross premiums for all types of insurance contracts excluding segregated fund contracts are generally recognized as revenue when due.

Fee income is generated from insurance contracts and service contracts.

Fee income from insurance contracts includes fees from segregated fund contracts, guarantee fees and other fees associated with insurance contracts and is typically recognized as revenue when services are rendered.

Fee income from service contracts represents fees associated with non-insurance contracts with customers and includes Distribution fees, Fund management and other asset-based fees, and Administrative services and other fees. Distribution fees includes fees earned from the distribution of investment products and other intermediary activities. Fund management and other asset-based fees includes fees earned from investment management services. Administrative services and other fees includes fees earned from contract administration and other management services. Fee income from service contracts is typically recognized as revenue when services are rendered at either a point in time or over time. The majority of fee income from service contracts is comprised of variable consideration which is based on a percentage of assets under management or another variable metric and is recognized as revenue when it is highly probable that a significant reversal in the amount of the revenue recognized will not occur.

Share-Based Payments

Share-based payment plans based on the value of SLF Inc.'s common shares are accounted for as cash-settled share-based payment transactions. The total liabilities for these plans are computed based on the estimated number of awards expected to vest at the end of the vesting period. The liabilities are recomputed at the end of each reporting period and are measured at the fair value of the award at that reporting date. The liabilities are accrued and expensed on a straight-line basis over the vesting periods. The liabilities are settled in cash at the end of the vesting period.

Related Party Transactions

Our related parties include our parent company and its other subsidiaries, our joint ventures and associates, and our key management personnel. Transactions with related parties are accounted for in the same manner as transactions with unrelated parties with the exception of business combinations and certain reorganizations involving us and our parent company or its other subsidiaries. For these transactions, the net assets acquired or sold are transferred at their carrying amount in the transferring entity, with any difference between the consideration paid or received and the carrying amount of the net assets transferred recorded to Retained earnings in our Consolidated Statements of Changes in Equity.

2. Changes in Accounting Policies

2.A New and Amended International Financial Reporting Standards Adopted in 2022

We adopted the following amendments on January 1, 2022:

In May 2020, the IASB issued *Reference to the Conceptual Framework*, which includes amendments to IFRS 3 *Business Combinations*. The amendments update an outdated reference to the Conceptual Framework in IFRS 3 without significantly changing the requirements in the standard. The adoption of this amendment did not have a material impact on our Consolidated Financial Statements.

In May 2020, the IASB issued *Property, Plant and Equipment—Proceeds before Intended Use*, which includes amendments to IAS 16 *Property, Plant and Equipment*. The amendments prohibit deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. The amendments apply retrospectively to assets ready for use in the comparative period. The adoption of this amendment did not have a material impact on our Consolidated Financial Statements.

In May 2020, the IASB issued *Onerous Contracts—Cost of Fulfilling a Contract*, which includes amendments to IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*. The amendments specify that the 'cost of fulfilling' a contract comprises the 'costs that relate directly to the contract'. Costs that relate directly to a contract can either be incremental costs of fulfilling that contract or an allocation of other costs that relate directly to fulfilling contracts. The adoption of this amendment did not have a material impact on our Consolidated Financial Statements.

In May 2020, the IASB issued *Annual Improvements to IFRS Standards 2018-2020*, which includes minor amendments to three IFRS standards applicable to our Consolidated Financial Statements. These amendments apply prospectively. The adoption of these amendments did not have a material impact on our Consolidated Financial Statements.

Interest Rate Benchmark Reform – Phase 2 Amendments

In August 2020, the IASB issued the Interest Rate Benchmark Reform Phase 2, which includes amendments to IFRS 9, IAS 39, IFRS 7 *Financial Instruments: Disclosures* ("IFRS 7"), IFRS 4 and IFRS 16 *Leases* ("IFRS 16"). These amendments address issues that arise from the implementation of the reforms, including the replacement of a benchmark with an alternative one. The adoption of these amendments did not have a material impact on our Consolidated Financial Statements

Effective December 31, 2021, the publication of London Inter-Bank Offered Rate ("LIBOR") settings has ceased for all sterling, Japanese yen, Swiss franc, and euro settings as well as for the one-week and two-month USD LIBOR settings. The remaining USD LIBOR settings will cease to be provided or lose their representativeness immediately after June 30, 2023.

On May 16, 2022, Refinitiv Benchmark Services (UK) Limited ("RBSL"), the administrator of the Canadian Dollar Offered Rate ("CDOR"), announced that it will permanently cease the publication and calculation of all tenors of CDOR after June 28, 2024. Concurrently, OSFI published their expectation that Federally Regulated Financial Institutions ("FRFI's") transition all new derivatives and securities to an alternative benchmark rate by June 30, 2023, with no new CDOR exposure after that date, with limited exceptions for risk management requirements. OSFI also expects loans referencing CDOR to transition by June 28, 2024. FRFI's are also expected to prioritize system and model updates to accommodate the use of the Canadian Overnight Repo Rate Average prior to June 28, 2024.

We have created an Interbank Offered Rate ("IBOR") Transition Program (the "Program") to manage the transition from IBOR benchmarks (such as LIBOR and CDOR) to Alternative Reference Rates ("ARRs"). The Program is cross-functional in nature and comprises key stakeholders across our organization and operates with executive oversight. The Program is on track in executing its transition plan, and is mindful of incorporating market developments as they arise. We also actively participate in industry associations and incorporate best practice guidance from these industry associations, as well as regulatory bodies into the transition plan, such as reviewing all existing and new LIBOR contracts for appropriate fallback language. The Program addresses the risk and uncertainty relating to the transition to ARRs, the use of fallback language, and other factors relating to reform that could otherwise adversely affect our operations and cash flows and the value of and return on our investments that are LIBOR or IBOR-based. Our affiliated entities with IBOR exposure related to derivatives have adhered to the International Swaps and Derivatives Association IBOR Fallbacks Protocol facilitating the transition of legacy derivative contracts to ARRs, and all of our GBP LIBOR exposure has been transitioned to Sterling Overnight Index Average.

As at December 31, 2022**,** our exposure to USD LIBOR consists of non-derivative financial assets of $2,424 (December 31, 2021—$3,568) and derivative notional of $1,683 (December 31, 2021—$9,213) that have not yet transitioned to an ARR, excluding financial instruments maturing by June 30, 2023. Our exposure to CDOR consists of non-derivative assets of $396 (June 30, 2022—$387), non-derivative financial liabilities of $12 (June 30, 2022—$9), and derivative notional of $11,725 (June 30, 2022—$10,748) that have not yet transitioned to an ARR, excluding financial instruments maturing by June 28, 2024.

2.B New and Amended International Financial Reporting Standards to be Adopted in 2023

The following new and amended IFRS were issued by the IASB. We expect to adopt these in 2023.

IFRS 17 and IFRS 9

In May 2017, the IASB issued IFRS 17 *Insurance Contracts* ("IFRS 17"). This standard is to be applied using a retrospective approach, with at least one year of comparative results provided. If retrospective application to a group of insurance contracts is impracticable, a modified retrospective or fair value approach may be used. We have elected to use a fair value approach in instances where retrospective application is impracticable. IFRS 17 replaces IFRS 4 and impacts how we recognize, measure, present, and disclose our insurance contracts in our Consolidated Financial Statements.

In July 2014, the IASB issued the final version of IFRS 9 which replaces IAS 39. IFRS 9 includes guidance on the classification and measurement of financial instruments, impairment of financial assets and hedge accounting, and does not require restatement of comparative periods.

In June 2020, an amendment was issued to defer the effective date of IFRS 17 to annual periods beginning on or after January 1, 2023. Eligible insurers were also permitted the option of deferring the adoption of IFRS 9 to coincide with the adoption of IFRS 17. We have elected to apply this deferral option, and the effective date of both IFRS 17 and IFRS 9 will be January 1, 2023.

In December 2021, the IASB issued an amendment to IFRS 17 to allow for a transition option that permits insurers to present comparative information on financial assets as if IFRS 9 were applicable during the comparative period ("classification overlay"). We have elected to apply the classification overlay to our financial assets and their comparative period results as if IFRS 9 had been effective since January 1, 2022.

IFRS 17 establishes principles for the recognition, measurement, presentation, and disclosure of insurance contracts. The key principles of IFRS 17 are as follows:

- Insurance contracts are those under which an entity accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder.
- Insurance contracts issued and reinsurance contracts held are divided into groups that will be separately recognized and measured.

- Groups of insurance contracts are recognized and measured as the total of the following measurement components: a) the present value of future cash flows; b) a risk adjustment for non-financial risk; and c) the contractual service margin ("CSM"), an amount that represents the unearned profit of the group of contracts. These measurement components apply to groups of insurance contracts measured using the general measurement approach ("GMA") and the variable fee approach ("VFA"). The VFA applies to insurance contracts issued with direct participation features, which are substantially investment-related service contracts under which the policyholder is promised an investment return based on underlying items, such as segregated funds and certain participating insurance contracts. For short duration contracts, such as most of our group life and health business, a simplified measurement approach (the premium allocation approach or "PAA") is applied. Under the PAA, insurance contracts are measured based on unearned profits and do not include a CSM.
- The profit from a group of insurance contracts is recognized into income over the period that insurance contract services are provided and as our risks related to servicing the contracts diminish over time.
- Insurance revenue, insurance services expenses and insurance finance income or expenses are presented separately.
- Disclosures are intended to enhance transparency and comparability of results.

The measurement of insurance contracts under IFRS 17 differs from the Canadian Asset Liability Method currently applied under IFRS 4. The most significant differences by measurement component are as follows:

Present value of future cash flows:

- The discount rates used to present value future cash flows under IFRS 17 are based on the characteristics of the insurance contracts. Under IFRS 4, discount rates are based on the portfolio of assets supporting the insurance contract liabilities.
- Estimates under IFRS 17 include the prevailing market view of the cost of financial guarantees, which requires a valuation consistent with market option prices. Under IFRS 4, the cost of financial guarantees is based on the amount required to fulfill the obligation.
- Expense cash flows under IFRS 17 are limited to those directly attributable to fulfillment of the obligations under insurance contracts.
- Future income taxes are excluded from future cash flows under IFRS 17.

Risk adjustment:

- Measures the compensation required for uncertainty related to non-financial risk, such as mortality, morbidity, surrender and expenses under IFRS 17.
- Provisions for uncertainty related to financial risk are included in the present value of future cash flows under IFRS 17.
- No amount is provided for asset-liability mismatch risk under IFRS 17.
- Under IFRS 4, amounts provided for the risks listed above are reflected in a provision for adverse deviations included in insurance contract liabilities.

Contractual service margin:

- This is a new component of liabilities and necessitates the "grouping" of insurance contracts, which is not required under IFRS 4.
- The CSM represents unearned profits, which is discussed in more detail below.

The measurement approach under IFRS 17 and IFRS 4 is similar for insurance contracts measured using the PAA, such as our group life and health contracts. Differences arise mainly in the measurement of the Liability for Incurred Claims, where the discount rate and risk adjustment changes noted above apply.

We have highlighted in the following section certain impacts on our financial performance as a result of the differences between IFRS 17 and IFRS 4 described above:

- New business gains (unearned profits) are measured differently under IFRS 17, reflecting measurement differences on insurance contracts as discussed above. In addition, new business gains under IFRS 17 are deferred and recorded in the CSM and amortized into income as insurance contract services are provided. Losses on new business are also measured differently, but continue to be recognized in income immediately. Under IFRS 4, new business gains and losses are both recognized in income immediately.

- Discount rates used in calculating the present value of insurance contract liabilities are based on the characteristics of the insurance contracts rather than the assets supporting the liabilities. Amongst other differences, this results in changes in the timing of when investment-related income emerges.
- Under IFRS 17, changes related to financial risk (e.g. changes in the discount rate) continue to be recognized in income immediately, except for insurance contracts measured using the VFA, where the changes are recorded through the CSM. Assumption changes for non-financial risk, such as mortality, are reflected in the CSM and amortized into income as insurance contract services are provided. Under IFRS 4, assumption changes for both financial and non-financial risk variables are recognized in income immediately.

IFRS 9 includes guidance on the classification and measurement of financial instruments, impairment of financial assets, and hedge accounting. The classification of financial assets is based on the cash flow characteristics and the business model within which an asset is managed, and determines how the financial asset is measured. The classification and measurement of financial liabilities remain generally unchanged from IAS 39. IFRS 9 also introduces an impairment model for financial assets not measured at FVTPL. The model requires the recognition of an allowance for 12-month expected losses at the initial recognition of a financial asset, and the recognition of an allowance for lifetime expected losses if certain criteria are met. In addition, IFRS 9 introduces a new model for hedge accounting to better align with risk management activities.

Under IFRS 17, we are electing to recognize all insurance finance income or expense in income rather than other comprehensive income. Consequently, to avoid an accounting mismatch, we are electing under IFRS 9 to classify most of our fixed income assets supporting insurance contracts as FVTPL.

The adoption of IFRS 17 and IFRS 9 is expected to have a significant impact on our Consolidated Financial Statements, and estimates of the financial impacts are subject to change as we continue to finalize the implications of adopting both standards. The establishment of the CSM and other measurement changes upon transition at January 1, 2022, including the impacts of reflecting IFRS 9 as at the same date, would reduce total equity. Key financial items on our Consolidated Statement of Financial position are expected to be impacted as follows:

	As at January 1, 2022	Impact of transition	As at January 1, 2022 Adjusted (subsequent to transition)
Total Assets(1)	$ 339,286	$ (3,361)	$ 335,925
Total Liabilities(2)	315,535	1,933	317,468
Total Equity	$ 23,751	$ (5,294)	$ 18,457
Shareholders' Equity	$ 19,573	$ (3,908)	$ 15,665
Participating Policyholders' Equity	$ 1,700	$ (1,385)	$ 315

(1) Impact of transition primarily due to measurement impacts from IFRS 9 classification changes on certain Invested assets and impacts from IFRS 17 on other assets such as Reinsurance assets and Policy loans.

(2) Impact of transition primarily due to establishment of CSM and the impact of discount rate changes under IFRS 17, partially offset by the release of reserves held under IFRS 4.

IAS 12

In May 2021, the IASB issued amendments to IAS 12 *Income Taxes* ("IAS 12"). The amendments, Deferred Tax related to Assets and Liabilities arising from a Single Transaction, narrow the scope of the recognition exemption in IAS 12 so that it no longer applies to transactions that, on initial recognition, give rise to equal taxable and deductible temporary differences. The amendment to IAS 12 will be effective for annual reporting periods beginning on or after January 1, 2023, with early application permitted. We do not expect the adoption of these amendments to have a material impact on our Consolidated Financial Statements.

IAS 1

In February 2021, the IASB issued amendments to IAS 1 *Presentation of Financial Statements* ("IAS 1") and IFRS Practice Statement 2 Making Materiality Judgments ("IFRS Practice Statement 2"). The amendments to IAS 1 require companies to disclose their material accounting policy information rather than their significant accounting policies. The amendments to IFRS Practice Statement 2 provide guidance on how to apply the concept of materiality to accounting policy disclosures. The amendment to IAS 1 will be effective for annual reporting periods beginning on or after January 1, 2023, with early application permitted. We do not expect the adoption of these amendments to have a material impact on our Consolidated Financial Statements.

IAS 8

In February 2021, the IASB issued amendments to IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* ("IAS 8"). The amendments clarify how companies should distinguish changes in accounting policies from changes in accounting estimates. The amendment to IAS 8 will be effective for annual reporting periods beginning on or after January 1, 2023, with early application permitted. We do not expect the adoption of these amendments to have a material impact on our Consolidated Financial Statements.

2.C Amended International Financial Reporting Standards to be Adopted in 2024 or Later

We are currently assessing the impact of the following amendments on our Consolidated Financial Statements:

IFRS 16

In September 2022, the IASB issued amendments to IFRS 16 to add subsequent measurement requirements for sale and leaseback transactions that satisfy the requirements in IFRS 15 *Revenue from Contracts with Customers* ("IFRS 15") to be accounted for as a sale. The amendments require a seller-lessee to subsequently measure lease liabilities arising from a leaseback in a way that it does not recognize any amount of the gain or loss that relates to the right of use it retains. The amendments to IFRS 16 will be effective for annual reporting periods beginning on or after January 1, 2024. The amendments apply retrospectively, with early application permitted.

3. Acquisitions and Other

SLF of Canada UK Limited Disposition

On August 4, 2022, we entered into an agreement to sell SLF of Canada UK Limited ("Sun Life UK") for approximately $385 (£248). Sun Life UK manages life and pension policies as well as payout annuities blocks for UK Clients. Sun Life UK is closed to new sales and has operated as a run-off business since 2001. Under the agreement, we will retain our economic interest in the payout annuities business through a reinsurance treaty.

As of December 31, 2022, the net carrying value of assets and liabilities classified as held for sale is $403, which is in accordance with applicable measurement requirements. This year, we recognized an impairment charge of $170 pertaining to the goodwill that is not expected to be recovered through the sale. The charge is recorded in Operating expenses, commissions and premium taxes. Any further gains or losses from the disposal, including closing price adjustments, cumulative currency differences and tax adjustments, will be recognized upon the close of the sale.

The disposal will be included within our Corporate business segment. The transaction is expected to close in the first half of 2023, subject to regulatory approvals and customary closing conditions.

Acquisitions and Other

On April 5, 2022, we announced a deepening of our existing bancassurance partnership with PT Bank CIMB Niaga Tbk ("CIMB Niaga") in Indonesia. Under the new agreement, which will be effective in January 2025, we will be the provider of insurance solutions to CIMB Niaga customers across all distribution channels for a term of 15 years, further accelerating our long-term strategy of growing our distribution capacity in the region. The agreement also extends our existing relationship with CIMB Niaga by a term of six years up to

2039. An initial payment of $508 was made on June 30, 2022. $18 of the initial payment related to the existing bancassurance partnership was capitalized as an intangible asset. The remaining $490 will initially be recognized as a prepayment and capitalized as an intangible asset once the agreement becomes effective in 2025. Amortization of this intangible asset will begin in 2025.

On December 13, 2021, we announced that Canadian Premier Life Insurance Company (“Canadian Premier”) has entered into an agreement to acquire our sponsored markets business. Sponsored markets include a variety of association & affinity, and group creditor clients. The transaction is expected to close in early 2023, subject to satisfaction of customary closing conditions, including receipt of regulatory approvals.

On February 1, 2021, the second stage of our acquisition of the pension business of FWD Life Insurance Company (Bermuda) Limited (“FWD”) was completed for net proceeds of $17. Included in the acquisition were $480 in Invested assets and $480 of Investment contract liabilities.

Effective January 1, 2021 we entered into a 15-year exclusive bancassurance partnership with Asia Commercial Joint Stock Bank (“ACB”). The partnership significantly expands our distribution capabilities in Asia. An initial payment of $471 was made in January 2021, based on the contractual terms of the agreement. The initial payment was capitalized as an intangible asset and will be amortized over the life of the contract based on a units-of-production method.

4. Segmented Information

We have four reportable business segments: Canada, U.S., Asia and Corporate. These business segments operate in the financial services industry and reflect our management structure and internal financial reporting. Corporate includes the results of our UK business unit and our Corporate Support operations, which include run-off reinsurance operations as well as investment income, expenses, capital, and other items not allocated to our other business groups.

Revenues from our business segments are derived principally from life and health insurance and annuities. Revenues not attributed to the strategic business units are derived primarily from Corporate investments and earnings on capital. Transactions between segments are executed and priced at an arm’s-length basis in a manner similar to transactions with third parties.

The expenses in each business segment may include costs or services directly incurred or provided on their behalf at the enterprise level. For other costs not directly attributable to one of our business segments, we use a management reporting framework that uses assumptions, judgments, and methodologies for allocating overhead costs, and indirect expenses to our business segments.

Intersegment transactions consist primarily of internal financing agreements which are measured at fair values prevailing when the arrangements are negotiated. Intersegment investment income consists primarily of interest paid by U.S. to Corporate. Intersegment transactions are presented in the Consolidation adjustments column in the following tables.

Management considers its external Clients to be individuals and corporations. We are not reliant on any individual Client as none is individually significant to our operations.

Results by segment for the years ended December 31, are as follows:

	Canada	U.S.	Asia	Corporate	Consolidation adjustments	Total
2022						
Gross premiums:						
Annuities	**$ 3,909**	**$ —**	**$ 26**	**$ 9**	**$ —**	**$ 3,944**
Life insurance	**6,308**	**1,514**	**3,512**	**60**	**—**	**11,394**
Health insurance	**6,493**	**5,357**	**25**	**4**	**—**	**11,879**
Total gross premiums	**16,710**	**6,871**	**3,563**	**73**	**—**	**27,217**
Less: Ceded premiums	**1,589**	**3,592**	**189**	**14**	**—**	**5,384**
Net investment income (loss) and interest income from loans to related parties	**(4,861)**	**(2,342)**	**(3,242)**	**(939)**	**(79)**	**(11,463)**
Fee income	**1,474**	**53**	**620**	**104**	**(13)**	**2,238**
Total revenue	**11,734**	**990**	**752**	**(776)**	**(92)**	**12,608**
Less:						
Total benefits and expenses	**10,234**	**429**	**218**	**(600)**	**(92)**	**10,189**
Income tax expense (benefit)	**354**	**113**	**63**	**(217)**	**—**	**313**
Total net income (loss)	**$ 1,146**	**$ 448**	**$ 471**	**$ 41**	**$ —**	**$ 2,106**
Less:						
Net income (loss) attributable to participating policyholders	**160**	**—**	**(44)**	**—**	**—**	**116**
Net income (loss) attributable to non-controlling interests	**—**	**—**	**—**	**165**	**—**	**165**
Shareholder's net income (loss)	**$ 986**	**$ 448**	**$ 515**	**$ (124)**	**$ —**	**$ 1,825**
2021						
Gross premiums:						
Annuities	$ 3,874	$ —	$ 29	$ 14	$ —	$ 3,917
Life insurance	5,848	1,451	3,542	83	—	10,924
Health insurance	5,989	4,622	24	7	—	10,642
Total gross premiums	15,711	6,073	3,595	104	—	25,483
Less: Ceded premiums	1,533	3,230	201	14	—	4,978
Net investment income (loss) and interest income from loans to related parties	3,070	512	1,060	206	(76)	4,772
Fee income	1,464	44	642	110	(10)	2,250
Total revenue	18,712	3,399	5,096	406	(86)	27,527
Less:						
Total benefits and expenses	16,548	3,079	3,838	508	(86)	23,887
Income tax expense (benefit)	372	59	113	(218)	—	326
Total net income (loss)	$ 1,792	$ 261	$ 1,145	$ 116	$ —	$ 3,314
Less:						
Net income (loss) attributable to participating policyholders	265	—	70	—	—	335
Net income (loss) attributable to non-controlling interests	—	—	—	156	—	156
Shareholder's net income (loss)	$ 1,527	$ 261	$ 1,075	$ (40)	$ —	$ 2,823

Assets and liabilities by segment are as follows:

	Canada	U.S.	Asia	Corporate	Consolidation adjustments	Total
As at December 31, 2022						
Total general fund assets	**$ 107,808**	**$ 39,040**	**$ 37,072**	**$ 10,007**	**$ 111**	**$ 194,038**
Investments for account of segregated fund holders	**$ 109,058**	**$ 371**	**$ 7,111**	**$ 8,702**	**$ —**	**$ 125,242**
Total general fund liabilities	**$ 99,849**	**$ 36,030**	**$ 29,662**	**$ 2,715**	**$ 111**	**$ 168,367**
As at December 31, 2021						
Total general fund assets	$ 107,905	$ 41,262	$ 37,661	$ 12,423	$ 106	$ 199,357
Investments for account of segregated fund holders	$ 121,146	$ 452	$ 7,609	$ 10,722	$ —	$ 139,929
Total general fund liabilities	$ 100,816	$ 38,872	$ 30,884	$ 4,928	$ 106	$ 175,606

The revenue and assets of our business segments differ from geographic segments primarily due to the geographic segmenting of our Corporate segment.

The following table shows revenue by country for Corporate:

For the years ended December 31,	2022	2021
Revenue:		
United States	**$ 251**	$ 272
United Kingdom	**(1,014)**	74
Canada	**(9)**	63
Other countries	**(4)**	(3)
Total revenue	**$ (776)**	$ 406

The following table shows total assets by country for Corporate:

As at December 31,	2022	2021
Total general fund assets:		
United States	**$ 4,166**	$ 4,058
United Kingdom	**4,827**	6,892
Canada	**833**	1,281
Other countries	**181**	192
Total general fund assets	**$ 10,007**	$ 12,423
Investment for account of segregated fund holders:		
United Kingdom	**$ 8,702**	$ 10,722
Total investment for account of segregated fund holders	**$ 8,702**	$ 10,722

5. Total Invested Assets and Related Net Investment Income

5.A Fair Value of Invested Assets

5.A.i Carrying Value and Fair Value of Financial Assets

The carrying values and fair values of our financial assets are shown in the following table:

As at	**December 31, 2022**		December 31, 2021	
	Carrying value	**Fair value**	Carrying value	Fair value
Assets				
Cash, cash equivalents and short-term securities	**$ 7,079**	**$ 7,079**	$ 7,125	$ 7,125
Debt securities – fair value through profit or loss	**62,491**	**62,491**	75,673	75,673
Debt securities – available-for-sale	**10,407**	**10,407**	9,990	9,990
Equity securities – fair value through profit or loss	**6,824**	**6,824**	7,538	7,538
Equity securities – available-for-sale	**144**	**144**	641	641
Mortgages and loans	**56,250**	**51,838**	51,680	55,743
Derivative assets	**2,041**	**2,041**	1,567	1,567
Other invested assets – fair value through profit or loss(1)	**4,178**	**4,178**	3,660	3,660
Other invested assets – available-for-sale(1)	**3,329**	**3,329**	3,113	3,113
Policy loans	**3,338**	**3,338**	3,247	3,247
Total financial assets(2)	**$ 156,081**	**$ 151,669**	$ 164,234	$ 168,297

(1) Other invested assets (FVTPL and AFS) include our investments in segregated funds, mutual funds and limited partnerships.

(2) Invested assets on our Consolidated Statements of Financial Position of $167,638 (December 31, 2021—$174,777) includes Total financial assets in this table, Investment properties of $9,987 (December 31, 2021—$8,921), and Other invested assets-non-financial assets of $1,570 (December 31, 2021—$1,622).

Our mortgages and loans are carried at amortized cost. The fair value of mortgages and loans, for disclosure purposes, is determined based on the methodology and assumptions described in Note 5.A.ii. As at December 31, 2022, $44,669 and $7,169 are categorized in Level 2 and Level 3, respectively, of the fair value hierarchy, described in this Note (December 31, 2021—$43,475 and $12,268, respectively).

Derivative liabilities with a fair value of $1,240 (December 31, 2021—$2,351) are also included on the Consolidated Statements of Financial Position.

Obligations for securities borrowing are carried at a fair value of $73 (December 31, 2021—$51).

Policy loans are carried at their unpaid principal balances. The fair value of policy loans, for disclosure purposes, is approximated by their carrying value, as policy loans are fully secured by policy values on which the loans are made and are categorized in Level 2 of the fair value hierarchy.

5.A.ii Fair Value Methodologies and Assumptions

The fair value of government and corporate debt securities is determined using quoted prices in active markets for identical or similar securities. When quoted prices in active markets are not available, fair value is determined using market standard valuation methodologies, which include discounted cash flow analysis, consensus pricing from various broker dealers that are typically the market makers, or other similar techniques. The assumptions and valuation inputs in applying these market standard valuation methodologies are determined primarily using observable market inputs, which include, but are not limited to, benchmark yields, reported trades of identical or similar instruments, broker-dealer quotes, issuer spreads, bid prices, and reference data including market research publications. In limited circumstances, non-binding broker quotes are used.

The fair value of asset-backed securities is determined using quoted prices in active markets for identical or similar securities, when available, or valuation methodologies and valuation inputs similar to those used for government and corporate debt securities. Additional valuation inputs include structural characteristics of the securities, and the underlying collateral performance, such as prepayment speeds and delinquencies. Expected prepayment speeds are based primarily on those previously experienced in the market at projected future interest rate levels. In instances where there is a lack of sufficient observable market data to value the securities, non-binding broker quotes are used.

The fair value of equity securities is determined using quoted prices in active markets for identical securities or similar securities. When quoted prices in active markets are not available, fair value is determined using equity valuation models, which include discounted cash flow analysis and other techniques that involve benchmark comparison. Valuation inputs primarily include projected future operating cash flows and earnings, dividends, market discount rates, and earnings multiples of comparable companies. The fair value of mortgages and loans is determined by discounting the expected future cash flows using a current market interest rate applicable to financial instruments with a similar yield, credit quality, and maturity characteristics. Valuation inputs typically include benchmark yields and risk-adjusted spreads from current lending activities or loan issuances. The risk-adjusted spreads are determined based on the borrower's credit and liquidity, as well as term and other loan-specific features. Long-term mortgages and loans are generally categorized in Level 3 of the fair value hierarchy. The significant unobservable input is a portion of these risk-adjusted spreads at or beyond the 20-year point for mortgages and at or beyond the 10-year point for loans.

The fair value of derivative financial instruments depends upon derivative types. The fair value of exchange-traded futures and options is determined using quoted prices in active markets, while the fair value of over-the-counter ("OTC") derivatives is determined using pricing models, such as discounted cash flow analysis or other market standard valuation techniques, with primarily observable market inputs. Valuation inputs used to price OTC derivatives may include swap interest rate curves, foreign exchange spot and forward rates, index prices, the value of underlying securities, projected dividends, volatility surfaces, and in limited circumstances, counterparty quotes. The fair value of OTC derivative financial instruments also includes credit valuation adjustments to reflect the credit risk of both the derivative counterparty and ourselves as well as the impact of contractual factors designed to reduce our credit exposure, such as collateral and legal rights of offset under master netting agreements. Inputs into determining the appropriate credit valuation adjustments are typically obtained from publicly available information and include credit default swap spreads when available, credit spreads derived from specific bond yields, or published cumulative default experience data adjusted for current trends when credit default swap spreads are not available.

The fair value of other invested assets is determined using quoted prices in active markets for identical securities or similar securities. When quoted prices in active markets are not available, fair value is determined using equity valuation models, which include discounted cash flow analysis and other techniques that involve benchmark comparison. Valuation inputs primarily include projected future operating cash flows and earnings, dividends, market discount rates, and earnings multiples of comparable companies.

The fair value of investment properties is generally determined using property valuation models that are based on expected capitalization rates and models that discount expected future net cash flows at current market interest rates reflective of the characteristics, location, and market of each property. Expected future net cash flows include contractual and projected cash flows and forecasted operating expenses, and take into account interest, rental, and occupancy rates derived from market surveys. The estimates of future cash inflows in addition to expected rental income from current leases, include projected income from future leases based on significant assumptions that are consistent with current market conditions. The future rental rates are estimated based on the location, type, and quality of the properties, and take into account market data and projections at the valuation date. The fair values are typically compared to market-based information for reasonability, including recent transactions involving comparable assets. The methodologies and inputs used in these models are in accordance with real estate industry valuation standards. Valuations are prepared externally or internally by professionally accredited real estate appraisers.

The fair value of short-term securities is approximated by their carrying amount, adjusted for credit risk where appropriate.

The fair value of investments for account of segregated fund holders is determined using quoted prices in active markets or independent valuation information provided by investment managers. The fair value of direct investments within investments for account of segregated fund holders, such as short-term securities and government and corporate debt securities, is determined according to valuation methodologies and inputs described above in the respective asset type sections.

The fair value of obligations for securities borrowing is based on the fair value of the underlying borrowed debt securities. As these obligations are fully collateralized, the method used to determine fair value would be the same as that used for the relevant underlying debt securities.

The methodologies and assumptions for determining the fair values of investment contract liabilities are included in Note 10.B.

5.A.iii Fair Value Hierarchy

We categorize our assets and liabilities carried at fair value, based on the priority of the inputs to the valuation techniques used to measure fair value, into a three-level fair value hierarchy as follows:

Level 1: Fair value is based on the unadjusted quoted prices for identical assets or liabilities in an active market. The types of assets and liabilities classified as Level 1 generally include cash and cash equivalents, certain U.S. government and agency securities, exchange-traded equity securities, and certain segregated and mutual fund units held for account of segregated fund holders.

Level 2: Fair value is based on quoted prices for similar assets or liabilities traded in active markets, or prices from valuation techniques that use significant observable inputs, or inputs that are derived principally from or corroborated with observable market data through correlation or other means. The types of assets and liabilities classified as Level 2 generally include Canadian federal, provincial and municipal government, other foreign government and corporate debt securities, certain asset-backed securities, OTC derivatives, and certain segregated and mutual fund units held for account of segregated fund holders.

Level 3: Fair value is based on valuation techniques that require one or more significant inputs that are not based on observable market inputs. These unobservable inputs reflect our expectations about the assumptions market participants would use in pricing the asset or liability. The types of assets and liabilities classified as Level 3 generally include certain corporate bonds, certain other invested assets, and investment properties.

Our assets and liabilities that are carried at fair value on a recurring basis by hierarchy level are as follows:

As at	**December 31, 2022**				December 31, 2021			
	Level 1	**Level 2**	**Level 3**	**Total**	Level 1	Level 2	Level 3	Total
Assets								
Cash, cash equivalents and short-term securities	**$ 6,739**	**$ 340**	**$ —**	**$ 7,079**	$ 6,423	$ 702	$ —	$ 7,125
Debt securities – fair value through profit or loss	**672**	**61,422**	**397**	**62,491**	1,448	74,063	162	75,673
Debt securities – available-for-sale	**556**	**9,810**	**41**	**10,407**	542	9,405	43	9,990
Equity securities – fair value through profit or loss	**3,995**	**2,731**	**98**	**6,824**	4,430	3,012	96	7,538
Equity securities – available-for-sale	**27**	**113**	**4**	**144**	545	87	9	641
Derivative assets	**29**	**2,012**	**—**	**2,041**	25	1,542	—	1,567
Other invested assets	**149**	**73**	**7,285**	**7,507**	544	213	6,016	6,773
Investment properties	**—**	**—**	**9,987**	**9,987**	—	—	8,921	8,921
Total invested assets measured at fair value	**$ 12,167**	**$ 76,501**	**$17,812**	**$ 106,480**	$ 13,957	$ 89,024	$ 15,247	$ 118,228
Investments for account of segregated fund holders	**23,883**	**100,728**	**631**	**125,242**	28,570	110,748	611	139,929
Total assets measured at fair value	**$ 36,050**	**$ 177,229**	**$18,443**	**$ 231,722**	$ 42,527	$ 199,772	$ 15,858	$ 258,157
Liabilities								
Investment contract liabilities	**$ —**	**$ —**	**$ 10**	**$ 10**	$ —	$ —	$ 9	$ 9
Derivative liabilities	**7**	**1,233**	**—**	**1,240**	4	2,347	—	2,351
Other liabilities – obligations for securities borrowing	**—**	**73**	**—**	**73**	—	51	—	51
Total liabilities measured at fair value	**$ 7**	**$ 1,306**	**$ 10**	**$ 1,323**	$ 4	$ 2,398	$ 9	$ 2,411

Debt securities — fair value through profit or loss consist of the following:

As at	December 31, 2022				December 31, 2021			
	Level 1	**Level 2**	**Level 3**	**Total**	Level 1	Level 2	Level 3	Total
Canadian federal government	**$ —**	**$ 3,869**	**$ 12**	**$ 3,881**	$ —	$ 4,783	$ 15	$ 4,798
Canadian provincial and municipal government	**—**	**12,638**	**—**	**12,638**	—	15,930	—	15,930
U.S. government and agency	**672**	**101**	**—**	**773**	1,448	130	—	1,578
Other foreign government	**—**	**3,846**	**11**	**3,857**	—	4,738	7	4,745
Corporate	**—**	**34,536**	**288**	**34,824**	—	41,680	138	41,818
Asset-backed securities:								
Commercial mortgage-backed securities	**—**	**2,018**	**56**	**2,074**	—	2,211	2	2,213
Residential mortgage-backed securities	**—**	**2,224**	**—**	**2,224**	—	2,559	—	2,559
Collateralized debt obligations	**—**	**538**	**—**	**538**	—	351	—	351
Other	**—**	**1,652**	**30**	**1,682**	—	1,681	—	1,681
Total debt securities – fair value through profit or loss	**$ 672**	**$ 61,422**	**$ 397**	**$ 62,491**	$ 1,448	$ 74,063	$ 162	$ 75,673

Debt securities — available-for-sale consist of the following:

As at	December 31, 2022				December 31, 2021			
	Level 1	**Level 2**	**Level 3**	**Total**	Level 1	Level 2	Level 3	Total
Canadian federal government	**$ —**	**$ 1,730**	**$ —**	**$ 1,730**	$ —	$ 1,864	$ —	$ 1,864
Canadian provincial and municipal government	**—**	**1,027**	**—**	**1,027**	—	1,149	—	1,149
U.S. government and agency	**556**	**1**	**—**	**557**	542	1	—	543
Other foreign government	**—**	**761**	**—**	**761**	—	756	1	757
Corporate	**—**	**4,267**	**41**	**4,308**	—	3,962	41	4,003
Asset-backed securities:								
Commercial mortgage-backed securities	**—**	**628**	**—**	**628**	—	586	1	587
Residential mortgage-backed securities	**—**	**665**	**—**	**665**	—	385	—	385
Collateralized debt obligations	**—**	**428**	**—**	**428**	—	412	—	412
Other	**—**	**303**	**—**	**303**	—	290	—	290
Total debt securities – available-for-sale	**$ 556**	**$ 9,810**	**$ 41**	**$ 10,407**	$ 542	$ 9,405	$ 43	$ 9,990

During 2022 and 2021, we did not have any significant transfers between Level 1 and Level 2.

The following table provides a reconciliation of the beginning and ending balances for assets that are categorized in Level 3:

For the year ended	Debt securities – fair value through profit or loss	Debt securities – available-for-sale	Equity securities – fair value through profit or loss	Equity securities – available-for-sale	Other invested assets	Investment properties	Total invested assets measured at fair value	Investments for account of segregated fund holders	Total assets measured at fair value
December 31, 2022									
Beginning balance	**$ 162**	**$ 43**	**$ 96**	**$ 9**	**$ 6,016**	**$ 8,921**	**$ 15,247**	**$ 611**	**$ 15,858**
Included in net income[(1)(2)(3)]	**(31)**	**1**	**—**	**5**	**301**	**633**	**909**	**(32)**	**877**
Included in OCI[(2)]	**—**	**(4)**	**—**	**—**	**1**	**—**	**(3)**	**—**	**(3)**
Purchases	**321**	**55**	**6**	**1**	**1,063**	**667**	**2,113**	**78**	**2,191**
Sales / Payments	**—**	**(2)**	**(4)**	**(11)**	**(345)**	**(359)**	**(721)**	**(6)**	**(727)**
Settlements	**(1)**	**—**	**—**	**—**	**—**	**—**	**(1)**	**(1)**	**(2)**
Transfers (out) of Level 3[(4)]	**(59)**	**(52)**	**—**	**—**	**—**	**—**	**(111)**	**—**	**(111)**
Foreign currency translation[(5)]	**5**	**—**	**—**	**—**	**249**	**125**	**379**	**(19)**	**360**
Ending balance	**$ 397**	**$ 41**	**$ 98**	**$ 4**	**$ 7,285**	**$ 9,987**	**$ 17,812**	**$ 631**	**$ 18,443**
Gains (losses) included in earnings relating to instruments still held at the reporting date[(1)]	**$ (31)**	**$ —**	**$ —**	**$ —**	**$ 292**	**$ 616**	**$ 877**	**$ (20)**	**$ 857**
December 31, 2021									
Beginning balance	$ 225	$ 67	$ 181	$ 9	$ 5,042	$ 7,331	$ 12,855	$ 550	$ 13,405
Included in net income[(1)(2)(3)]	(6)	—	10	—	391	1,024	1,419	23	1,442
Included in OCI[(2)]	—	(1)	—	—	9	—	8	—	8
Purchases	29	5	8	—	1,032	767	1,841	65	1,906
Sales / Payments	(9)	(13)	(25)	—	(435)	(197)	(679)	(9)	(688)
Settlements	(15)	(3)	(5)	—	—	—	(23)	(1)	(24)
Transfers (out) of Level 3[(4)]	(57)	(10)	(73)	—	—	—	(140)	—	(140)
Foreign currency translation[(5)]	(5)	(2)	—	—	(23)	(4)	(34)	(17)	(51)
Ending balance	$ 162	$ 43	$ 96	$ 9	$ 6,016	$ 8,921	$ 15,247	$ 611	$ 15,858
Gains (losses) included in earnings relating to instruments still held at the reporting date[(1)]	$ (4)	$ —	$ 11	$ —	$ 382	$ 1,031	$ 1,420	$ 27	$ 1,447

(1) Included in Net investment income (loss) for Total invested assets measured at fair value in our Consolidated Statements of Operations.

(2) Total gains and losses in net income (loss) and OCI are calculated assuming transfers into or out of Level 3 occur at the beginning of the period. For an asset or liability that transfers into Level 3 during the reporting period, the entire change in fair value for the period is included in the table above. For transfers out of Level 3 during the reporting period, the change in fair value for the period is excluded from the table above.

(3) Investment properties included in net income is comprised of fair value changes on investment properties of $676 (2021—$1,071), net of amortization of leasing commissions and tenant inducements of $43 (2021—$47). As at December 31, 2022, we have used assumptions that reflect known changes in the property values including changes in expected future cash flows.

(4) Transfers out of Level 3 occur when the pricing inputs become more transparent and satisfy the Level 1 or 2 criteria and are primarily the result of observable market data being available at the reporting date, thus removing the requirement to rely on inputs that lack observability.

(5) Foreign currency translation relates to the foreign exchange impact of translating Level 3 assets and liabilities of foreign subsidiaries from their functional currencies to Canadian dollars.

Unobservable Inputs and Sensitivity for Level 3 Assets

Our assets categorized in Level 3 of the fair value hierarchy are primarily Investment properties, Debt securities, and Other invested assets.

The fair value of Investment properties is determined by using the discounted cash flow methodology as described in Note 5.A.ii. The key unobservable inputs used in the valuation of investment properties as at December 31, 2022 include the following:

- Estimated rental value: The estimated rental value is based on contractual rent and other local market lease transactions, net of reimbursable operating expenses. An increase (decrease) in the estimated rental value would result in a higher (lower) fair value. The estimated rental value varies depending on the property types, which include retail, office, and industrial properties. The estimated rental value (in dollars, per square foot, per annum) ranges from $12.00 to $76.00 for retail and office properties and from $3.00 to $21.50 for industrial properties.
- Rental growth rate: The rental growth rate is typically estimated based on expected market behaviour, which is influenced by the type of property and geographic region of the property. An increase (decrease) in the rental growth rate would result in a higher (lower) fair value. The rental growth rate (per annum) ranges from 0.00% to 3.00%, however the one-to two-year short-term rent curve is either below or above this range for select properties.
- Long-term vacancy rate: The long-term vacancy rate is typically estimated based on expected market behaviour, which is influenced by the type of property and geographic region of the property. An increase (decrease) in the long-term vacancy rate would result in a lower (higher) fair value. The long-term vacancy rate ranges from 2.00% to 10.00%.
- Discount rate: The discount rate is derived from market activity across various property types and geographic regions and is a reflection of the expected rate of return to be realized on the investment over the next 10 years. An increase (decrease) in the discount rate would result in a lower (higher) fair value. The discount rate ranges from 5.00% to 9.50%.
- Terminal capitalization rate: The terminal capitalization rate is derived from market activity across various property types and geographic regions and is a reflection of the expected rate of return to be realized on the investment over the remainder of its life after the 10-year period. An increase (decrease) in the terminal capitalization rate would result in a lower (higher) fair value. The terminal capitalization rate ranges from 3.63% to 8.00%.

Changes in the estimated rental value are positively correlated with changes in the rental growth rate. Changes in the estimated rental value are negatively correlated with changes in the long-term vacancy rate, the discount rate, and the terminal capitalization rate.

Our Debt securities categorized in Level 3, which are included in Debt securities—FVTPL and Debt securities—AFS in the Level 3 roll forward table, consist primarily of corporate bonds. The fair value of these corporate bonds is generally determined using broker quotes that cannot be corroborated with observable market transactions. Significant unobservable inputs for these corporate bonds would include issuer spreads, which are comprised of credit, liquidity, and other security-specific features of the bonds. An increase (decrease) in these issuer spreads would result in a lower (higher) fair value. Due to the unobservable nature of these broker quotes, we do not assess whether applying reasonably possible alternative assumptions would have an impact on the fair value of the Level 3 corporate bonds. The majority of our debt securities categorized in Level 3 are FVTPL assets supporting insurance contract liabilities. Changes in the fair value of these assets supporting insurance contract liabilities are largely offset by changes in the corresponding insurance contract liabilities under CALM. As a result, though using reasonably possible alternative assumptions may have an impact on the fair value of the Level 3 debt securities, it would not have a significant impact on our Consolidated Financial Statements.

The Other invested assets categorized in Level 3, which are included in Other invested assets—FVTPL and Other invested assets—AFS in the Level 3 roll forward table, consists primarily of limited partnership investments. The fair value of our limited partnership investments is based on net asset value (“NAV”) provided by management of the limited partnership investments. Based on the unobservable nature of these NAVs, we do not assess whether applying reasonably possible alternative assumptions would have an impact on the fair value of the Level 3 limited partnership investments.

Valuation Process for Level 3 Assets

Our assets categorized in Level 3 of the fair value hierarchy are primarily Investment properties, Debt securities and limited partnership investments included in Other invested assets. Our valuation processes for these assets are as follows:

The fair value of investment properties are based on the results of appraisals performed annually and reviewed quarterly for material changes. The valuation methodology used to determine the fair value is in accordance with the standards of the Appraisal Institute of Canada, the U.S., and the UK. Investment properties are appraised externally at least once every three years. Investment properties not appraised externally in a given year are reviewed by qualified appraisers. A management committee, including investment professionals, reviews the fair value of investment properties for overall reasonability.

The fair value of Debt securities is generally obtained by external pricing services. We obtain an understanding of inputs and valuation methods used by external pricing services. When fair value cannot be obtained from external pricing services, broker quotes, or internal models subject to detailed review and validation processes are used. The fair value of debt securities is subject to price validation and review procedures to ensure overall reasonability.

The fair value of limited partnership investments, included in Other invested assets, is based on NAV. The financial statements used in calculating the NAV are generally audited annually. We review the NAV of the limited partnership investments and perform analytical and other procedures to ensure the fair value is reasonable.

5.B Interest and Other Investment Income

Interest and other investment income presented in our Consolidated Statements of Operations consist of the following:

For the years ended December 31,	2022	2021
Interest income:		
Cash, cash equivalents and short-term securities	**$ 114**	$ 21
Debt securities – fair value through profit or loss	**2,584**	2,419
Debt securities – available-for-sale	**281**	226
Mortgages and loans	**2,233**	2,116
Derivative investments	**115**	108
Policy loans	**166**	160
Total interest income	**5,493**	5,050
Equity securities – dividends on fair value through profit or loss	**236**	209
Equity securities – dividends on available-for-sale	**168**	158
Investment properties rental income[(1)]	**586**	538
Investment properties expenses	**(266)**	(252)
Other income	**213**	896
Investment expenses and taxes	**(250)**	(217)
Total interest and other investment income	**$ 6,180**	$ 6,382

(1) Includes operating lease rental income from investment properties.

5.C Fair Value and Foreign Currency Changes on Assets and Liabilities

Fair value and foreign currency changes on assets and liabilities presented in our Consolidated Statements of Operations consist of the following:

For the years ended December 31,	2022	2021
Fair value change:		
Cash, cash equivalents and short-term securities	$ 4	$ (3)
Debt securities	(15,903)	(3,880)
Equity securities	(1,125)	825
Derivative investments	(2,194)	145
Other invested assets	263	422
Other liabilities – obligations for securities borrowing	15	(2)
Total change in fair value through profit or loss assets and liabilities	(18,940)	(2,493)
Fair value changes on investment properties	676	1,071
Foreign exchange gains (losses)[(1)]	464	(352)
Realized gains (losses) on property and equipment[(2)]	83	—
Fair value and foreign currency changes on assets and liabilities	$ (17,717)	$ (1,774)

(1) Primarily arises from the translation of foreign currency denominated AFS monetary assets and mortgage and loans. Any offsetting amounts arising from foreign currency derivatives are included in the fair value change on derivative investments.

(2) In June 2022, we sold and leased back our Wellesley office in the U.S. The transaction qualified as a sale and operating lease and as a result, we recognized a pre-tax gain of $83 for the year ended December 31, 2022 (2021—$nil).

5.D Cash, Cash Equivalents and Short-Term Securities

Cash, cash equivalents and short-term securities presented in our Consolidated Statements of Financial Position and Net cash, cash equivalents and short-term securities presented in our Consolidated Statements of Cash Flows consist of the following:

As at December 31,	2022	2021
Cash	$ 1,535	$ 1,138
Cash equivalents	4,159	3,220
Short-term securities	1,385	2,767
Cash, cash equivalents and short-term securities	7,079	7,125
Less: Bank overdraft, recorded in Other liabilities	6	133
Net cash, cash equivalents and short-term securities	$ 7,073	$ 6,992

5.E Derivative Financial Instruments and Hedging Activities

The fair values of derivative financial instruments by major class of derivatives are as follows:

As at December 31,	2022		2021	
	Fair value		Fair value	
	Assets	Liabilities	Assets	Liabilities
Interest rate contracts	$ 689	$ (63)	$ 940	$ (1,331)
Foreign exchange contracts	1,281	(1,167)	514	(1,016)
Other contracts	71	(10)	113	(4)
Total derivatives	$ 2,041	$ (1,240)	$ 1,567	$ (2,351)

The following table presents the fair values of derivative assets and liabilities categorized by type of hedge for accounting purposes and derivative investments:

As at December 31,	2022			2021		
		Fair value			Fair value	
	Total notional amount	**Assets**	**Liabilities**	Total notional amount	Assets	Liabilities
Derivative investments[(1)]	**$ 64,299**	**$ 2,032**	**$ (1,219)**	$ 63,298	$ 1,526	$ (2,349)
Fair value hedges	**59**	**—**	**(1)**	261	—	(2)
Cash flow hedges	**540**	**9**	**(20)**	159	41	—
Total derivatives	**$ 64,898**	**$ 2,041**	**$ (1,240)**	$ 63,718	$ 1,567	$ (2,351)

(1) Derivative investments are derivatives that have not been designated as hedges for accounting purposes.

We did not have any net investment hedges in 2022 or 2021.

Hedge ineffectiveness recognized in Interest and other investment income consists of the following:

For the years ended December 31,	2022	2021
Gains (losses) on the hedged items attributable to the hedged risk	**$ (2)**	$ (6)
Gains (losses) on the hedging derivatives	**3**	8
Net ineffectiveness on fair value hedges	**$ 1**	$ 2

For cash flow hedges, we had hedge ineffectiveness of $1 in 2022 (2021—$2). We expect to reclassify a gain of $1 (2021—$7) from accumulated OCI to net income within the next 12 months that relates to cash flow hedges of anticipated award payments under certain share-based payment plans that are expected to occur in 2023, 2024 and 2025. The reclassification of accumulated OCI to income relating to these foreign currency forwards occurs upon disposal or impairment of the foreign operation.

5.F Transfers of Financial Assets

We enter into transactions, including mortgage securitization, repurchase agreements and securities lending, where we transfer financial assets while retaining the risks and rewards of ownership of the assets. These transferred financial assets are not derecognized and remain on our Consolidated Statements of Financial Position. The carrying value of the transferred assets and the associated liabilities are described in the sections below.

5.F.i Mortgage Securitization

We securitize certain insured fixed-rate commercial mortgages through the creation of mortgage-backed securities under the National Housing Act Mortgage-Backed Securities ("NHA MBS") Program sponsored by the Canada Mortgage and Housing Corporation ("CMHC"). The NHA MBS are then sold to Canada Housing Trust, a government-sponsored security trust that issues securities to third-party investors under the Canadian Mortgage Bond ("CMB") program. The securitization of these assets does not qualify for derecognition as we have not transferred substantially all of the risks and rewards of ownership. Specifically, we continue to be exposed to pre-payment and interest rate risk associated with these assets. There are no expected credit losses on the securitized mortgages, as the mortgages were already insured by the CMHC prior to securitization. These assets continue to be recognized as Mortgages and loans in our Consolidated Statements of Financial Position. Proceeds from securitization transactions are recognized as secured borrowings and included in Other liabilities in our Consolidated Statements of Financial Position.

Receipts of principal on the securitized mortgages are deposited into a principal reinvestment account ("PRA") to meet our repayment obligation upon maturity under the CMB program. The assets in the PRA are typically comprised of cash and cash equivalents and certain asset-backed securities. We are exposed to reinvestment risk due to the amortizing nature of the securitized mortgages relative to our repayment obligation for the full principal amount due at maturity. We mitigate this reinvestment risk using interest rate swaps.

The carrying value and fair value of the securitized mortgages as at December 31, 2022 are $1,926 and $1,793, respectively (December 31, 2021—$1,856 and $1,882, respectively). The carrying value and fair value of the associated liabilities as at December 31, 2022 are $2,158 and $2,018, respectively (December 31, 2021—$2,007 and $2,043, respectively). The carrying value of securities in the PRA as at December 31, 2022 is $244 (December 31, 2021—$164). There are $nil cash and cash equivalents in the PRA as at December 31, 2022 (December 31, 2021—$4).

The fair value of the secured borrowings from mortgage securitization is based on the methodologies and assumptions for asset-backed securities described in Note 5.A.ii. The fair value of these liabilities is categorized in Level 2 of the fair value hierarchy as at December 31, 2022 and 2021.

5.F.ii Repurchase Agreements

We enter into repurchase agreements for operational funding and liquidity purposes. Repurchase agreements have maturities ranging from 4 to 365 days, averaging 110 days, and bear interest at an average rate of 3.90% as at December 31, 2022 (December 31, 2021—0.35%). The carrying values of the transferred assets and the obligations related to their repurchase, which approximate their fair values, are $2,725 as at December 31, 2022 (December 31, 2021—$2,324). These liabilities are categorized in Level 2 of the fair value hierarchy. Collateral primarily consists of cash and cash equivalents as well as government guaranteed securities. Details on the collateral pledged are included in Note 6.A.ii.

5.F.iii Securities Lending

The Company engages in securities lending to generate additional income. Certain securities from its portfolio are lent to other institutions for short periods. Collateral exceeding the fair value of the securities lent is deposited by the borrower with a lending agent, usually a securities custodian, and maintained by the lending agent until the underlying security has been returned to us. The fair value of the securities lent is monitored on a daily basis with additional collateral obtained or refunded as the fair values fluctuate. Collateral primarily consists of Canadian federal and provincial government securities and cash and cash equivalents. Certain arrangements allow us to invest the cash collateral received for the securities lent. The carrying values of the securities lent approximate their fair values. The carrying values of the securities lent and the related collateral held are $2,202 and $2,322, respectively, as at December 31, 2022 (December 31, 2021—$2,257 and $2,372, respectively). Of the collateral held, we held cash collateral of $215 as at December 31, 2022 (December 31, 2021—$51), which is recognized on our Consolidated Statements of Financial Position.

6. Financial Instrument Risk Management

The significant risks related to financial instruments are credit risk, market risk (including equity risk, interest rate and spread risk, and foreign currency risk) and liquidity risk. The following sections describe how we manage these risks.

We use derivative instruments to manage market risks related to equity market, interest rate and currency fluctuations and in replication strategies for permissible investments. We do not engage in speculative investment in derivatives. The gap in market sensitivities or exposures between liabilities and supporting assets is monitored and managed within defined tolerance limits, by using derivative instruments, where appropriate. We use models and techniques to measure the effectiveness of our risk management strategies.

6.A Credit Risk

Risk Description

Credit risk is the possibility of loss from amounts owed by our borrowers or financial counterparties. We are subject to credit risk in connection with issuers of securities held in our investment portfolio, debtors, structured securities, reinsurers, counterparties (including derivative, repurchase agreement and securities lending counterparties), other financial institutions and other entities. Losses may occur when a counterparty fails to make timely payments pursuant to the terms of the underlying contractual arrangement or when the counterparty's credit rating or risk profile otherwise deteriorates. Credit risk can also arise in connection with deterioration in the value of, or ability to realize, any underlying security that may be used as collateral for the debt obligation. Credit risk can occur as a result of broad economic conditions, challenges within specific sectors of the economy, or from issues affecting individual companies. Events that result in defaults, impairments or downgrades of the securities in our investment portfolio would cause the Company to record realized or unrealized losses and may cause an increase in our provisions for asset default, adversely impacting earnings.

Credit Risk Management Governance and Control

We rate fixed income investments primarily through the use of internally developed scorecards which combine an estimated probability of default and loss given default to determine an expected loss and credit risk rating. This rating is expressed using a 22-point scale that is generally consistent with those used by external rating agencies, and is based on detailed examination of the borrower's, or issuer's, credit quality and the characteristics of the specific instrument. The probability of default assessment is based on borrower-level or issuer-level analysis, which encompasses an assessment of industry risk, business strategy, competitiveness, strength of management and other financial information. The loss given default assessment is based on instrument-level analysis, which considers the impact of guarantees, covenants, liquidity and other structural features. These scorecards provide input to stochastic value-at-risk models and are used to stress test the portfolio, which provide insight into the distribution and characteristics of credit risk within our portfolios. In accordance with our policies and under normal circumstances, our ratings cannot be higher than the highest rating provided by certain Nationally Recognized Statistical Rating Organizations ("NRSROs"). Certain assets, including those in our sovereign debt and asset-backed securities portfolios, are assigned a rating based on ratings provided by NRSROs using a priority sequence order of Standard & Poor's, Moody's, Fitch and DBRS Limited. We employ a wide range of credit risk management practices and controls, as outlined below:

- Credit risk governance practices are in place, including independent monitoring and review and reporting to senior management and the Risk Committee.
- Risk appetite limits have been established for credit risk.
- Income and regulatory capital sensitivities are monitored, managed and reported against pre-established risk limits.
- Comprehensive Investment and Credit Risk Management Policy, guidelines and practices are in place.
- Specific investment diversification requirements are in place, such as defined investment limits for asset class, geography, and industry.
- Risk-based credit portfolio, counterparty, and sector exposure limits have been established.
- Mandatory use of credit quality ratings for portfolio investments has been established and is reviewed regularly. These internal rating decisions for new fixed income investments and ongoing review of existing rating decisions are independently adjudicated by Corporate Risk Management.
- Comprehensive due diligence processes and ongoing credit analyses are conducted.
- Regulatory solvency requirements include risk-based capital requirements and are monitored regularly.
- Comprehensive compliance monitoring practices and procedures including reporting against pre-established investment limits are in place.
- Reinsurance exposures are monitored to ensure that no single reinsurer represents an undue level of credit risk.
- Stress-testing techniques, such as Financial Condition Testing ("FCT"), are used to measure the effects of large and sustained adverse credit developments.
- Insurance contract liabilities are established in accordance with Canadian actuarial standards of practice.
- Internal capital targets are established at an enterprise level to cover all risks and are above minimum regulatory and supervisory levels. Actual capital levels are monitored to ensure they exceed internal targets.

6.A.i Maximum Exposure to Credit Risk

Our maximum credit exposure related to financial instruments as at December 31 is the balance as presented in our Consolidated Statements of Financial Position as we believe that these carrying amounts best represent the maximum exposure to credit risk. The credit exposure for debt securities may be increased to the extent that the amounts recovered from default are insufficient to satisfy the actuarial liability cash flows that the assets are intended to support.

The positive fair value of derivative assets is used to determine the credit risk exposure if the counterparties were to default. The credit risk exposure is the cost of replacing, at current market rates, all derivative contracts with a positive fair value. Additionally, we have credit exposure to items not on the Consolidated Statements of Financial Position as follows:

As at December 31,	**2022**	2021
Off-balance sheet item:		
Loan commitments(1)	**$ 2,217**	$ 2,402

(1) Loan commitments include commitments to extend credit under commercial and multi-family residential mortgages and private debt securities not quoted in an active market. Commitments on debt securities contain provisions that allow for withdrawal of the commitment if there is deterioration in the credit quality of the borrower.

6.A.ii Right of Offset and Collateral

We invest in financial assets which may be secured by real estate properties, pools of financial assets, third-party financial guarantees, credit insurance, and other arrangements.

For OTC derivatives, collateral is collected from and pledged to counterparties to manage credit exposure according to the Credit Support Annex ("CSA"), which forms part of the International Swaps and Derivatives Association's ("ISDA") master agreements. It is common practice to execute a CSA in conjunction with an ISDA master agreement. Under the ISDA master agreements for OTC derivatives, we have a right of offset in the event of default, insolvency, bankruptcy, or other early termination. In the ordinary course of business, bilateral OTC exposures under these agreements are substantially mitigated through associated collateral agreements with a majority of our counterparties.

For exchange-traded derivatives subject to derivative clearing agreements with the exchanges and clearinghouses, there is no provision for set-off at default. Initial margin is excluded from the table below as it would become part of a pooled settlement process.

For repurchase agreements and reverse repurchase agreements, assets are sold or purchased with a commitment to resell or repurchase at a future date. Additional collateral may be pledged to or collected from counterparties to manage credit exposure according to bilateral repurchase or reverse repurchase agreements. In the event of default by a counterparty, we are entitled to liquidate the assets we hold as collateral to offset against obligations to the same counterparty.

In the case of securities lending or borrowing, assets are lent or borrowed with a commitment from or to the counterparty to return at a future date. For securities lending, cash or securities are received as collateral from the counterparty; for securities borrowing, debt securities are pledged as collateral to the counterparty. In the event of default by the counterparty, we are entitled to liquidate the assets we hold as collateral to offset against obligations to the same counterparty.

We do not offset financial instruments in our Consolidated Statements of Financial Position, as our rights of offset are conditional. The following tables present the effect of conditional netting and similar arrangements. Similar arrangements include global master repurchase agreements, security lending agreements, and any related rights to financial collateral.

As at December 31,	2022				2021			
		Related amounts not set off in the Consolidated Statements of Financial Position				Related amounts not set off in the Consolidated Statements of Financial Position		
	Financial instruments presented in the Consolidated Statements of Financial Position[1]	**Financial instruments subject to master netting or similar agreements**	**Financial collateral (received) pledged[2]**	**Net amount**	Financial instruments presented in the Consolidated Statements of Financial Position[1]	Financial instruments subject to master netting or similar agreements	Financial collateral (received) pledged[2]	Net amount
Financial assets:								
Derivative assets (Note 6.A.v)	**$ 2,041**	**$ (1,076)**	**$ (919)**	**$ 46**	$ 1,567	$ (826)	$ (553)	$ 188
Reverse repurchase agreements (Note 8)	**14**	**(14)**	**—**	**—**	—	—	—	—
Total financial assets	**$ 2,055**	**$ (1,090)**	**$ (919)**	**$ 46**	$ 1,567	$ (826)	$ (553)	$ 188
Financial liabilities:								
Derivative liabilities	**$ (1,240)**	**$ 1,076**	**$ 164**	**$ —**	$ (2,351)	$ 826	$ 542	$ (983)
Repurchase agreements (Note 5.F.ii)	**(2,725)**	**14**	**2,711**	**—**	(2,324)	—	2,324	—
Cash collateral on securities lent (Note 5.F.iii)	**(215)**	**—**	**203**	**(12)**	(51)	—	48	(3)
Obligations for securities borrowing	**(73)**	**—**	**73**	**—**	(51)	—	51	—
Total financial liabilities	**$ (4,253)**	**$ 1,090**	**$ 3,151**	**$ (12)**	$ (4,777)	$ 826	$ 2,965	$ (986)

(1) Net amounts of the financial instruments presented in our Consolidated Statements of Financial Position are the same as our gross recognized financial instruments, as we do not offset financial instruments in our Consolidated Statements of Financial Position.

(2) Financial collateral presented in the table above excludes overcollateralization and, for exchange traded derivatives, initial margin. Total financial collateral, including initial margin and overcollateralization, received on derivative assets was $1,056 (December 31, 2021—$674), received on reverse repurchase agreements was $14 (December 31, 2021—$nil), pledged on derivative liabilities was $1,999 (December 31, 2021—$1,516), and pledged on repurchase agreements was $2,725 (December 31, 2021—$2,324).

6.A.iii Concentration Risk

Concentrations of credit risk arise from exposures to a single debtor, a group of related debtors, or groups of debtors that have similar credit risk characteristics, such as groups of debtors in the same economic or geographic regions or in similar industries. Related issuers may have similar economic characteristics so that their ability to meet contractual obligations may be impacted similarly by changes in the economic or political conditions. We manage this risk by appropriately diversifying our investment portfolio through the use of concentration limits. In particular, we maintain policies which set counterparty exposure limits to manage the credit exposure for investments in any single issuer or to the same underlying credit. Exceptions exist for investments in securities which are issued or guaranteed by the Government of Canada, U.S. or UK and issuers for which the Risk Committee have granted specific approval. Mortgages are collateralized by the related property, and generally do not exceed 75% of the value of the property at the time the original loan is made. Our mortgages and loans are diversified by type and location and, for mortgages, by borrower. Loans provide diversification benefits (name, industry and geography) and often provide stronger covenants and collateral than public debt securities, thereby providing both better credit protection and potentially higher recoveries in the event of default. The following tables provide details of the debt securities, mortgages and loans held by issuer country, geographic location and industry sector, where applicable.

The carrying value of debt securities by geographic location is shown in the following table. The geographic location is based on the country of the creditor's parent.

As at December 31,			2022			2021
	Fair value through profit or loss	**Available-for-sale**	**Total debt securities**	Fair value through profit or loss	Available-for-sale	Total debt securities
Canada	**$ 27,813**	**$ 4,229**	**$ 32,042**	$ 33,022	$ 4,377	$ 37,399
United States	**21,240**	**3,486**	**24,726**	26,463	3,040	29,503
United Kingdom	**2,907**	**516**	**3,423**	4,191	503	4,694
Other	**10,531**	**2,176**	**12,707**	11,997	2,070	14,067
Total debt securities	**$ 62,491**	**$ 10,407**	**$ 72,898**	$ 75,673	$ 9,990	$ 85,663

The carrying value of debt securities by issuer and industry sector is shown in the following table:

As at December 31,			2022			2021
	Fair value through profit or loss	**Available-for-sale**	**Total debt securities**	Fair value through profit or loss	Available-for-sale	Total debt securities
Debt securities issued or guaranteed by:						
Canadian federal government	**$ 3,881**	**$ 1,730**	**$ 5,611**	$ 4,798	$ 1,864	$ 6,662
Canadian provincial and municipal government	**12,638**	**1,027**	**13,665**	15,930	1,149	17,079
U.S. government and agency	**773**	**557**	**1,330**	1,578	543	2,121
Other foreign government	**3,857**	**761**	**4,618**	4,745	757	5,502
Total government issued or guaranteed debt securities	**21,149**	**4,075**	**25,224**	27,051	4,313	31,364
Corporate debt securities by industry sector:						
Financials	**9,324**	**1,418**	**10,742**	10,206	1,237	11,443
Utilities	**5,957**	**527**	**6,484**	7,388	636	8,024
Industrials	**4,734**	**544**	**5,278**	5,761	578	6,339
Energy	**3,056**	**240**	**3,296**	3,973	235	4,208
Communication services	**2,920**	**260**	**3,180**	3,514	253	3,767
Real estate	**1,909**	**390**	**2,299**	2,320	299	2,619
Health care	**1,671**	**203**	**1,874**	2,071	207	2,278
Consumer staples	**1,660**	**192**	**1,852**	2,029	152	2,181
Consumer discretionary	**1,385**	**248**	**1,633**	1,802	167	1,969
Information technology	**1,112**	**175**	**1,287**	1,406	143	1,549
Materials	**1,096**	**111**	**1,207**	1,348	96	1,444
Total corporate debt securities	**34,824**	**4,308**	**39,132**	41,818	4,003	45,821
Asset-backed securities	**6,518**	**2,024**	**8,542**	6,804	1,674	8,478
Total debt securities	**$ 62,491**	**$ 10,407**	**$ 72,898**	$ 75,673	$ 9,990	$ 85,663

The carrying value of mortgages and loans by geographic location and type is shown in the following tables. The geographic location for mortgages is based on location of property, while for corporate loans it is based on the country of the creditor's parent.

As at December 31, 2022	Canada	United States	United Kingdom	Other	Total
Mortgages:					
Retail	$ 1,546	$ 1,455	$ —	$ —	$ 3,001
Office	1,762	1,522	—	—	3,284
Multi-family residential	4,025	1,245	—	—	5,270
Industrial and land	1,779	1,100	—	—	2,879
Other	780	113	29	—	922
Total mortgages(1)	9,892	5,435	29	—	15,356
Loans	13,143	17,231	4,923	5,597	40,894
Total mortgages and loans	$ 23,035	$ 22,666	$ 4,952	$ 5,597	$ 56,250

(1) $4,174 of mortgages in Canada are insured by the CMHC.

As at December 31, 2021	Canada	United States	United Kingdom	Other	Total
Mortgages:					
Retail	$ 1,765	$ 1,623	$ —	$ —	$ 3,388
Office	1,892	1,639	—	—	3,531
Multi-family residential	4,138	1,589	—	—	5,727
Industrial and land	1,094	936	—	—	2,030
Other	680	115	9	—	804
Total mortgages(1)	9,569	5,902	9	—	15,480
Loans	12,885	14,589	4,111	4,615	36,200
Total mortgages and loans	$ 22,454	$ 20,491	$ 4,120	$ 4,615	$ 51,680

(1) $4,218 of mortgages in Canada are insured by the CMHC.

6.A.iv Contractual Maturities

The contractual maturities of debt securities are shown in the following table. Actual maturities could differ from contractual maturities because of the borrower's right to call or extend or right to prepay obligations, with or without prepayment penalties.

As at December 31,			2022			2021
	Fair value through profit or loss	Available-for-sale	Total debt securities	Fair value through profit or loss	Available-for-sale	Total debt securities
Due in 1 year or less	$ 2,397	$ 1,000	$ 3,397	$ 2,472	$ 722	$ 3,194
Due in years 2-5	10,907	4,295	15,202	10,402	3,660	14,062
Due in years 6-10	9,845	2,598	12,443	11,282	2,975	14,257
Due after 10 years	39,342	2,514	41,856	51,517	2,633	54,150
Total debt securities	$ 62,491	$ 10,407	$ 72,898	$ 75,673	$ 9,990	$ 85,663

The carrying value of mortgages by scheduled maturity, before allowances for losses, is as follows:

As at December 31,	2022	2021
Due in 1 year or less	**$ 1,350**	$ 884
Due in years 2-5	**6,308**	6,167
Due in years 6-10	**5,210**	5,979
Due after 10 years	**2,568**	2,530
Total mortgages	**$ 15,436**	$ 15,560

The carrying value of loans by scheduled maturity, before allowances for losses, is as follows:

As at December 31,	2022	2021
Due in 1 year or less	**$ 2,893**	$ 1,772
Due in years 2-5	**7,236**	7,108
Due in years 6-10	**8,720**	7,386
Due after 10 years	**22,157**	19,986
Total loans	**$ 41,006**	$ 36,252

Notional amounts of derivative financial instruments are the basis for calculating payments and are generally not the actual amounts exchanged. The following table provides the notional amounts of derivative instruments outstanding by type of derivative and term to maturity:

As at December 31,	**2022**				2021			
	Term to maturity				Term to maturity			
	Under 1 Year	**1 to 5 Years**	**Over 5 Years**	**Total**	Under 1 Year	1 to 5 Years	Over 5 Years	Total
Over-the-counter contracts:								
Interest rate contracts:								
Forward contracts	**$ 7**	**$ —**	**$ —**	**$ 7**	$ 94	$ 6	$ —	$ 100
Swap contracts	**1,193**	**4,008**	**12,106**	**17,307**	1,273	3,360	12,913	17,546
Options purchased	**1,512**	**2,080**	**1,253**	**4,845**	878	3,297	1,674	5,849
Options written(1)	**135**	**224**	**—**	**359**	—	461	—	461
Foreign exchange contracts:								
Forward contracts	**13,311**	**—**	**—**	**13,311**	9,788	2,824	—	12,612
Swap contracts	**806**	**2,598**	**18,138**	**21,542**	725	2,654	16,494	19,873
Other contracts:								
Options purchased	**338**	**—**	**—**	**338**	271	8	—	279
Forward contracts	**145**	**168**	**—**	**313**	154	163	—	317
Swap contracts	**79**	**—**	**—**	**79**	95	—	—	95
Credit derivatives	**302**	**1,058**	**—**	**1,360**	322	513	—	835
Exchange-traded contracts:								
Interest rate contracts:								
Futures contracts	**2,862**	**—**	**—**	**2,862**	3,658	—	—	3,658
Equity contracts:								
Futures contracts	**2,256**	**—**	**—**	**2,256**	1,880	—	—	1,880
Options purchased	**189**	**78**	**—**	**267**	213	—	—	213
Options written	**52**	**—**	**—**	**52**	—	—	—	—
Total notional amount	**$ 23,187**	**$ 10,214**	**$ 31,497**	**$ 64,898**	$ 19,351	$ 13,286	$ 31,081	$ 63,718

(1) These are covered short derivative positions that may include interest rate options, swaptions, or floors.

The following table provides the fair value of derivative instruments outstanding by term to maturity:

As at December 31,	2022				2021			
	Term to maturity				Term to maturity			
	Under 1 Year	**1 to 5 Years**	**Over 5 Years**	**Total**	Under 1 Year	1 to 5 Years	Over 5 Years	Total
Derivative assets	**$ 127**	**$ 349**	**$ 1,565**	**$ 2,041**	$ 131	$ 241	$ 1,195	$ 1,567
Derivative liabilities	**$ (340)**	**$ (196)**	**$ (704)**	**$ (1,240)**	$ (89)	$ (184)	$ (2,078)	$ (2,351)

6.A.v Asset Quality

The following sections describe our assessment of the credit quality of our financial assets. We monitor credit quality based on internal risk ratings as well as ratings assigned by external rating agencies where available.

Debt Securities by Credit Rating

Investment grade debt securities are those rated BBB and above. Our debt security portfolio was 99% investment grade based on carrying value as at December 31, 2022 (December 31, 2021—99%). The credit risk ratings were established in accordance with the internal rating process described in the Credit Risk Management Governance and Control section.

The following table summarizes our debt securities by credit quality:

As at December 31,	2022			2021		
	Fair value through profit or loss	**Available-for-sale**	**Total debt securities**	Fair value through profit or loss	Available-for-sale	Total debt securities
Debt securities by credit rating:						
AAA	**$ 10,356**	**$ 4,186**	**$ 14,542**	$ 12,735	$ 4,127	$ 16,862
AA	**9,528**	**1,507**	**11,035**	11,488	1,399	12,887
A	**24,081**	**2,559**	**26,640**	29,927	2,468	32,395
BBB	**17,837**	**1,910**	**19,747**	20,585	1,829	22,414
BB and lower	**689**	**245**	**934**	938	167	1,105
Total debt securities	**$ 62,491**	**$ 10,407**	**$ 72,898**	$ 75,673	$ 9,990	$ 85,663

Mortgages and Loans by Credit Rating

The credit quality of mortgages and loans is evaluated internally through regular monitoring of credit-related exposures. We use judgment and experience to determine what factors should be considered when assigning an internal credit rating, which is validated through the use of credit scoring models, to a particular mortgage or corporate loan. The internal credit ratings reflect the credit quality of the borrower as well as the value of any collateral held as security.

The following tables summarize our mortgages and loans by credit quality indicator:

As at December 31,	**2022**	2021
Mortgages by credit rating:		
Insured	**$ 4,174**	$ 4,218
AA	**1,769**	1,640
A	**5,913**	4,979
BBB	**2,911**	3,809
BB and lower	**589**	822
Impaired	**—**	12
Total mortgages	**$ 15,356**	$ 15,480

As at December 31,	2022	2021
Loans by credit rating:		
AAA	**$ 274**	$ 192
AA	**5,712**	4,994
A	**16,891**	14,231
BBB	**15,913**	14,625
BB and lower	**2,071**	2,139
Impaired	**33**	19
Total loans	**$ 40,894**	$ 36,200

Derivative Financial Instruments by Counterparty Credit Rating

Derivative instruments consist of bilateral OTC contracts negotiated directly between counterparties, OTC contracts cleared through central clearing houses or exchange-traded contracts. Since a counterparty failure in an OTC derivative transaction could render it ineffective for hedging purposes, we generally transact our derivative contracts with highly-rated counterparties. In limited circumstances, we enter into transactions with lower-rated counterparties if credit enhancement features are included.

We pledge and hold assets as collateral under CSAs for bilateral OTC derivative contracts. The collateral is realized in the event of early termination as defined in the agreements. The assets held and pledged are primarily cash and debt securities issued by the Canadian federal government and U.S. government and agencies. While we are generally permitted to sell or re-pledge the assets held as collateral, we have not sold or re-pledged any assets. Exchange-traded and cleared OTC derivatives require the posting of initial margin, as well as daily cash settlement of variation margin. The terms and conditions related to the use of the collateral are consistent with industry practice.

Further details on collateral held and pledged as well as the impact of netting arrangements are included in Note 6.A.ii.

The following table shows the OTC derivative financial instruments with a positive fair value split by counterparty credit rating:

As at December 31,	**2022**			2021		
	Gross positive replacement cost[(2)]	**Impact of master netting agreements[(3)]**	**Net replacement cost[(4)]**	Gross positive replacement cost[(2)]	Impact of master netting agreements[(3)]	Net replacement cost[(4)]
Over-the-counter contracts:						
AA	**$ 468**	**$ (254)**	**$ 214**	$ 392	$ (218)	$ 174
A	**1,543**	**(822)**	**721**	1,074	(597)	477
BBB	**—**	**—**	**—**	74	(11)	63
Total over-the-counter derivatives[(1)]	**$ 2,011**	**$ (1,076)**	**$ 935**	$ 1,540	$ (826)	$ 714

(1) Exchange-traded derivatives with a positive fair value of $30 in 2022 (2021 — $27) are excluded from the table above, as they are subject to daily margining requirements. Our credit exposure on these derivatives is with the exchanges and clearinghouses.

(2) Used to determine the credit risk exposure if the counterparties were to default. The credit risk exposure is the cost of replacing, at current market rates, all contracts with a positive fair value.

(3) The credit risk associated with derivative assets subject to master netting arrangements is reduced by derivative liabilities due to the same counterparty in the event of default or early termination. Our overall exposure to credit risk reduced through master netting arrangements may change substantially following the reporting date as the exposure is affected by each transaction subject to the arrangement.

(4) Net replacement cost is positive replacement cost less the impact of master netting agreements.

Credit Default Swaps by Underlying Financial Instrument Credit Rating

Credit default swaps ("CDS") are OTC contracts that transfer credit risk related to an underlying referenced financial instrument from one counterparty to another. The purchaser receives protection against the decline in the value of the referenced financial instrument as a result of specified credit events such as default or bankruptcy. The seller receives a periodic premium in return for payment contingent on a credit event affecting the referenced financial instrument. CDS index contracts are those where the underlying referenced financial instruments are a group of assets. The Company enters into credit derivatives to replicate credit exposure of an underlying reference security and enhance investment returns. The credit risk ratings of the underlying reference securities for single name contracts were established in accordance with the internal rating process described in the Credit Risk Management Governance and Control section.

The following table provides a summary of the credit default swap protection sold by credit rating of the underlying reference security:

As at December 31,	**2022**		2021	
	Notional amount	**Fair value**	Notional amount	Fair value
Single name credit default swap contracts:				
AA	**$ 20**	**$ —**	$ 38	$ 1
A	**587**	**4**	347	4
BBB	**706**	**5**	431	9
BB	**47**	**7**	19	—
Total single name credit default swap contracts	**$ 1,360**	**$ 16**	$ 835	$ 14
Total credit default swap contracts sold	**$ 1,360**	**$ 16**	$ 835	$ 14

Reinsurance Assets by Credit Rating

The table below presents the distribution of Reinsurance assets by credit rating:

As at December 31,	**2022**			2021		
	Gross exposure	**Collateral**	**Net exposure**	Gross exposure	Collateral	Net exposure
Ceded to related parties (Note 24):	**$ 8,525**	**$ —**	**$ 8,525**	$ 10,283	$ —	$ 10,283
AA	**2,409**	**—**	**2,409**	2,170	—	2,170
A	**1,308**	**30**	**1,278**	928	28	900
BBB	**133**	**118**	**15**	139	117	22
BB	**2,046**	**2,000**	**46**	1,861	1,825	36
B	**3**	**—**	**3**	—	—	—
CCC	**237**	**237**	**—**	197	194	3
Not rated	**105**	**97**	**8**	136	131	5
Total	**$ 14,766**	**$ 2,482**	**$ 12,284**	$ 15,714	$ 2,295	$ 13,419
Less: Negative reinsurance assets	**1,440**			1,748		
Total Reinsurance assets	**$ 13,326**			$ 13,966		

6.A.vi Impairment of Assets

Management assesses debt and equity securities, mortgages and loans, and other invested assets for objective evidence of impairment at each reporting date. We employ a portfolio monitoring process to identify assets or groups of assets that have objective evidence of impairment, having experienced a loss event or events that have an impact on the estimated future cash flows of the asset or group of assets. There are inherent risks and uncertainties in our evaluation of assets or groups of assets for objective evidence of impairment, including both internal and external factors such as general economic conditions, issuers' financial conditions and prospects for economic recovery, market interest rates, unforeseen events which affect one or more issuers or industry sectors, and portfolio management parameters, including asset mix, interest rate risk, portfolio diversification, duration matching, and greater than expected liquidity needs. All of these factors could impact our evaluation of an asset or group of assets for objective evidence of impairment.

Management exercises considerable judgment in assessing for objective evidence of impairment and, based on its assessment, classifies specific assets as either performing or into one of the following credit quality lists:

“Monitor List” – the timely collection of all contractually specified cash flows is reasonably assured, but changes in issuer-specific facts and circumstances require monitoring. No impairment charge is recorded for unrealized losses on assets related to these debtors.

“Watch List” – the timely collection of all contractually specified cash flows is reasonably assured, but changes in issuer-specific facts and circumstances require heightened monitoring. An asset is moved from the Monitor List to the Watch List when changes in issuer-specific facts and circumstances increase the possibility that a security may experience a loss event on an imminent basis. No impairment charge is recorded for unrealized losses on assets related to these debtors.

“Impaired List” – the timely collection of all contractually specified cash flows is no longer reasonably assured. For these investments that are classified as AFS or amortized cost, an impairment charge is recorded or the asset is sold and a realized loss is recorded as a charge to income. Impairment charges and realized losses are recorded on assets related to these debtors.

Our approach to determining whether there is objective evidence of impairment varies by asset type. However, we have a process to ensure that in all instances where a decision has been made to sell an asset at a loss, the asset is impaired.

Debt Securities

Objective evidence of impairment on debt securities involves an assessment of the issuer’s ability to meet current and future contractual interest and principal payments. In determining whether debt securities have objective evidence of impairment, we employ a screening process. The process identifies securities in an unrealized loss position, with particular attention paid to those securities whose fair value to amortized cost percentages have been less than 80% for an extended period of time. Discrete credit events, such as a ratings downgrade, are also used to identify securities that may have objective evidence of impairment. The securities identified are then evaluated based on issuer-specific facts and circumstances, including an evaluation of the issuer’s financial condition and prospects for economic recovery, evidence of difficulty being experienced by the issuer’s parent or affiliate, and management’s assessment of the outlook for the issuer’s industry sector.

Management also assesses previously impaired debt securities whose fair value has recovered to determine whether the recovery is objectively related to an event occurring subsequent to the impairment loss that has an impact on the estimated future cash flows of the asset.

Asset-backed securities are assessed for objective evidence of impairment. Specifically, we periodically update our best estimate of cash flows over the life of the security. In the event that there is an adverse change in the expected cash flows, the asset is impaired. Estimating future cash flows is a quantitative and qualitative process that incorporates information received from third parties, along with assumptions and judgments about the future performance of the underlying collateral. Losses incurred on the respective mortgage-backed securities portfolios are based on loss models using assumptions about key systematic risks, such as unemployment rates and housing prices, and loan-specific information such as delinquency rates and loan-to-value ratios.

Equity Securities and Other Invested Assets

Objective evidence of impairment for equity securities and investments in limited partnerships, segregated funds, and mutual funds involves an assessment of the prospect of recovering the cost of our investment. Instruments in an unrealized loss position are reviewed to determine if objective evidence of impairment exists. Objective evidence of impairment for these instruments includes, but is not limited to, the financial condition and near-term prospects of the issuer, including information about significant changes with adverse effects that have taken place in the technological, market, economic, or legal environment in which the issuer operates, and a significant or prolonged decline in the fair value of the instruments below their cost.

We apply presumptive impairment tests to determine whether there has been a significant or prolonged decline in the fair value of an instrument below its cost, and unless extenuating circumstances exist, the instrument is considered to be impaired.

Mortgages and Loans

Objective evidence of impairment on mortgages and loans involves an assessment of the borrower's ability to meet current and future contractual interest and principal payments. In determining whether objective evidence of impairment exists, we consider a number of factors including, but not limited to, the financial condition of the borrower and, for collateral dependent mortgages and loans, the fair value of the collateral.

Mortgages and loans causing concern are monitored closely and evaluated for objective evidence of impairment. For these mortgages and loans, we review information that is appropriate to the circumstances, including recent operating developments, strategy review, timelines for remediation, financial position of the borrower and, for collateral-dependent mortgages and loans, the value of security as well as occupancy and cash flow considerations.

In addition to specific allowances, circumstances may warrant a collective allowance based on objective evidence of impairment for a group of mortgages and loans. We consider regional economic conditions, developments for various property types, and significant exposure to struggling tenants in determining whether there is objective evidence of impairment for certain collateral dependent mortgages and loans, even though it is not possible to identify specific mortgages and loans that are likely to become impaired on an individual basis.

Management also assesses previously impaired mortgages and loans to determine whether a recovery is objectively related to an event occurring subsequent to the impairment loss that has an impact on the estimated future cash flows of the asset.

Impairment of Fair Value Through Profit or Loss Assets

Since financial assets classified as FVTPL are carried at fair value with changes in fair value recorded to income, any reduction in value of the assets due to impairment is already reflected in income. However, the impairment of assets classified as FVTPL generally impacts the change in insurance contract liabilities due to the impact of asset impairment on estimates of future cash flows.

Impairment of Available-for-Sale Assets

We recognized net recoveries on AFS assets of $1 for the year ended December 31, 2022 (2021—net impairment losses of $16).

We did not reverse any impairment on AFS debt securities during 2022 and 2021.

Past Due and Impaired Mortgages and Loans

The distribution of mortgages and loans past due or impaired is shown in the following tables:

	Gross carrying value			**Allowance for losses**		
As at December 31, 2022	**Mortgages**	**Loans**	**Total**	**Mortgages**	**Loans**	**Total**
Not past due	**$ 15,356**	**$ 40,861**	**$ 56,217**	**$ —**	**$ —**	**$ —**
Impaired	**80**	**145**	**225**	**80**	**112**	**192**
Total	**$ 15,436**	**$ 41,006**	**$ 56,442**	**$ 80**	**$ 112**	**$ 192**

	Gross carrying value			Allowance for losses		
As at December 31, 2021	Mortgages	Loans	Total	Mortgages	Loans	Total
Not past due	$ 15,468	$ 36,181	$ 51,649	$ —	$ —	$ —
Impaired	92	71	163	80	52	132
Total	$ 15,560	$ 36,252	$ 51,812	$ 80	$ 52	$ 132

Changes in Allowances for Losses

The changes in the allowances for losses are as follows:

	Mortgages	Loans	Total
Balance, January 1, 2021	$ 66	$ 49	$ 115
Provision for (reversal of) losses	15	5	20
Write-offs, net of recoveries, and other adjustments	—	(2)	(2)
Foreign exchange rate movements	(1)	—	(1)
Balance, December 31, 2021	$ 80	$ 52	$ 132
Provision for (reversal of) losses	**(2)**	**57**	**55**
Write-offs, net of recoveries, and other adjustments	**—**	**—**	**—**
Foreign exchange rate movements	**2**	**3**	**5**
Balance, December 31, 2022	**$ 80**	**$ 112**	**$ 192**

6.B Market Risk

Risk Description

We are exposed to financial and capital market risk, which is defined as the risk that the fair value or future cash flows of an insurance contract or financial instrument will fluctuate because of changes or volatility in market prices. Market risk includes equity, interest rate and spread, real estate, foreign currency, and inflation risks.

Market Risk Management Governance and Control

We employ a wide range of market risk management practices and controls as outlined below:

- Market risk governance practices are in place, including independent monitoring and review and reporting to senior management and the Risk Committee.
- Risk appetite limits have been established for equity, interest rate, real estate and foreign currency risks.
- Income and regulatory capital sensitivities are monitored, managed and reported against pre-established risk limits.
- Comprehensive asset-liability management and hedging policies, programs and practices are in place.
- Regulatory solvency requirements include risk-based capital requirements and are monitored regularly.
- Product Design and Pricing Policy requires a detailed risk assessment and pricing provisions for material risks.
- Stress-testing techniques, such as FCT, are used to measure the effects of large and sustained adverse market movements.
- Insurance contract liabilities are established in accordance with Canadian actuarial standards of practice.
- Internal capital targets are established at an enterprise level to cover all risks and are above minimum regulatory and supervisory levels. Actual capital levels are monitored to ensure they exceed internal targets.

Specific market risks and our risk management strategies are discussed below in further detail.

6.B.i Equity Risk

Equity risk is the potential for financial loss arising from declines or volatility in equity market prices. We are exposed to equity risk from a number of sources. A portion of our exposure to equity risk arises in connection with benefit guarantees on segregated fund products. These benefit guarantees may be triggered upon death, maturity, withdrawal or annuitization. The cost of providing these guarantees is uncertain and depends upon a number of factors, including general capital market conditions, our hedging strategies, policyholder behaviour and mortality experience, each of which may result in negative impacts on net income and capital.

We generate revenue in our asset management businesses and from certain insurance and annuity contracts where fees are levied on account balances that are affected directly by equity market levels. Accordingly, we have further exposure to equity risk as adverse fluctuations in the market value of such assets will result in corresponding adverse impacts on our revenue and net income. In addition, declining and volatile equity markets may have a negative impact on sales and redemptions (surrenders) in these businesses, and this may result in further adverse impacts on our net income and financial position.

We also have direct exposure to equity markets from the investments supporting other general account liabilities, surplus, and employee benefit plans. These exposures fall within our risk-taking philosophy and appetite, and are therefore generally not hedged.

The carrying value of equities by issuer country is shown in the following table:

As at December 31,			2022			2021
	Fair value through profit or loss	**Available-for-sale**	**Total equities**	Fair value through profit or loss	Available-for-sale	Total equities
Canada	**$ 2,981**	**$ 48**	**$ 3,029**	$ 3,301	$ 54	$ 3,355
United States	**1,732**	**21**	**1,753**	2,010	479	2,489
United Kingdom	**150**	**4**	**154**	186	6	192
Other	**1,961**	**71**	**2,032**	2,041	102	2,143
Total equities	**$ 6,824**	**$ 144**	**$ 6,968**	$ 7,538	$ 641	$ 8,179

6.B.ii Interest Rate and Spread Risk

Interest rate and spread risk is the potential for financial loss arising from changes or volatility in interest rates or spreads when asset cash flows and the policy obligations they support are not matched. This may result in the need to either sell assets to meet policy payments and expenses or reinvest excess asset cash flows in unfavourable interest rate or spread environments. The impact of changes or volatility in interest rates or spreads is reflected in the valuation of our financial assets and liabilities for insurance contracts.

Our primary exposure to interest rate and spread risk arises from certain general account products and segregated fund contracts which contain investment guarantees in the form of minimum crediting rates, guaranteed premium rates, settlement options and benefit guarantees. If investment returns fall below guaranteed levels, we may be required to increase liabilities or capital in respect of these contracts. The guarantees attached to these products may be applicable to both past premiums collected and future premiums not yet received. Segregated fund contracts provide benefit guarantees that are linked to underlying fund performance and may be triggered upon death, maturity, withdrawal or annuitization. These products are included in our asset-liability management program and the residual interest rate exposure is managed within our risk appetite limits.

Declines in interest rates or narrowing spreads can result in compression of the net spread between interest earned on investments and interest credited to policyholders. Declines in interest rates or narrowing spreads may also result in increased asset calls, mortgage prepayments and net reinvestment of positive cash flows at lower yields, and therefore adversely impact our profitability and financial position. Negative interest rates may additionally result in losses on our cash deposits and low or negative returns on our fixed income assets impacting our profitability. In contrast, increases in interest rates or a widening of spreads may have a material impact on the value of fixed income assets, resulting in depressed market values, and may lead to lower Life Insurance Capital Adequacy Test ("LICAT") ratios or losses in the event of the liquidation of assets prior to maturity.

Significant changes or volatility in interest rates or spreads could have a negative impact on sales of certain insurance and annuity products, and adversely impact the expected pattern of redemptions (surrenders) on existing policies. Increases in interest rates or widening spreads may increase the risk that policyholders will surrender their contracts, potentially forcing us to liquidate assets at a loss and accelerate recognition of certain acquisition expenses. While we have established hedging programs in place and our insurance and annuity products often contain surrender mitigation features, these may not be sufficient to fully offset the adverse impact of the underlying losses.

We also have direct exposure to interest rates and spreads from investments supporting other general account liabilities, surplus and employee benefit plans. Lower interest rates or a narrowing of spreads will result in reduced investment income on new fixed income asset purchases. Conversely, higher interest rates or wider spreads will reduce the value of our existing assets. These exposures fall within our risk-taking philosophy and appetite and are therefore generally not hedged.

6.B.iii Market Risk Sensitivities

We utilize a variety of methods and measures to quantify our market risk exposures. These include duration management, key rate duration techniques, convexity measures, cash flow gap analysis, scenario testing, and sensitivity testing of earnings and regulatory capital ratios versus risk appetite limits.

Our net income is affected by the determination of policyholder obligations under our annuity and insurance contracts. These amounts are determined using internal valuation models and are recorded in our Annual Consolidated Financial Statements, primarily as Insurance contract liabilities. The determination of these obligations requires management to make assumptions about the future level of equity market performance, interest rates, credit and swap spreads, and other factors over the life of our products. Differences between our actual experience and our best estimate assumptions are reflected in our Annual Consolidated Financial Statements. Refer to the section Additional Cautionary Language and Key Assumptions Related to Sensitivities for important additional information regarding these estimates.

Equity Market Sensitivities

The following table sets out the estimated immediate impact on, or sensitivity of, our net income and OCI to certain instantaneous changes in equity market prices as at December 31, 2022 and December 31, 2021:

As at December 31, 2022 ($ millions, unless otherwise noted)				
Change in Equity Markets[1]	**25% decrease**	**10% decrease**	**10% increase**	**25% increase**
Potential impact on net income[2][3]	**$ (300)**	**$ (100)**	**$ 100**	**$ 250**
Potential impact on OCI[3]	**$ (100)**	**$ (50)**	**$ 50**	**$ 100**

As at December 31, 2021 ($ millions, unless otherwise noted)				
Change in Equity Markets[1]	25% decrease	10% decrease	10% increase	25% increase
Potential impact on net income[2][3]	$ (400)	$ (150)	$ 150	$ 350
Potential impact on OCI[3]	$ (150)	$ (50)	$ 50	$ 150

(1) Represents the respective change across all equity markets as at December 31, 2022 and December 31, 2021. Assumes that actual equity exposures consistently and precisely track the broader equity markets. Since in actual practice equity-related exposures generally differ from broad market indices (due to the impact of active management, basis risk, and other factors), realized sensitivities may differ significantly from those illustrated above. Sensitivities include the impact of re-balancing equity hedges for dynamic hedging programs at 2% intervals (for 10% changes in equity markets) and at 5% intervals (for 25% changes in equity markets).

(2) The market risk sensitivities include the estimated mitigation impact of our hedging programs in effect as at December 31, 2022 and December 31, 2021, and include new business added and product changes implemented prior to such dates.

(3) Net income and OCI sensitivities have been rounded in increments of $50 million. The sensitivities exclude the market impacts on the income from our joint ventures and associates, which we account for on an equity basis.

Interest Rate Sensitivities

The following table sets out the estimated immediate impact on, or sensitivity of, our net income and OCI to certain instantaneous changes in interest rates as at December 31, 2022 and December 31, 2021:

($ millions, unless otherwise noted)	**As at December 31, 2022**		As at December 31, 2021	
Change in Interest Rates[1]	**50 basis point decrease**	**50 basis point increase**	50 basis point decrease	50 basis point increase
Potential impact on net income[2][3][4]	**$ —**	**$ —**	$ (50)	$ —
Potential impact on OCI[3]	**$ 200**	**$ (200)**	$ 250	$ (250)

(1) Interest rate sensitivities assume a parallel shift in assumed interest rates across the entire yield curve as at December 31, 2022 and December 31, 2021 with no change to the Actuarial Standards Board ("ASB") promulgated Ultimate Reinvestment Rate ("URR"). Variations in realized yields based on factors such as different terms to maturity and geographies may result in realized sensitivities being significantly different from those illustrated above. Sensitivities include the impact of re-balancing interest rate hedges for dynamic hedging programs at 10 basis point intervals (for 50 basis point changes in interest rates).

(2) The market risk sensitivities include the estimated mitigation impact of our hedging programs in effect as at December 31, 2022 and December 31, 2021, and include new business added and product changes implemented prior to such dates.

(3) Net income and OCI sensitivities have been rounded in increments of $50 million. The sensitivities exclude the market impacts on the income from our joint ventures and associates, which we account for on an equity basis.

(4) The majority of interest rate sensitivity, after hedging, is attributed to individual insurance products. We also have interest rate sensitivity, after hedging, from our fixed annuity and segregated funds products.

The above sensitivities were determined using a 50 basis point change in interest rates and a 10% change in our equity markets because we believe that these market shocks were reasonably possible as at December 31, 2022 .We have also disclosed the impact of a 25% change in equity markets to illustrate that significant changes in equity market levels may result in other than proportionate impacts on our sensitivities.

Credit Spread and Swap Spread Sensitivities

We have estimated the immediate impact or sensitivity of our net income attributable to certain instantaneous changes in credit and swap spreads. The credit spread sensitivities reflect the impact of changes in credit spreads on our asset and liability valuations (including non-sovereign fixed income assets, provincial governments, corporate bonds, and other fixed income assets). The swap spread sensitivities reflect the impact of changes in swap spreads on swap-based derivative positions and liability valuations.

Credit Spread Sensitivities (after-tax)

($ millions, unless otherwise noted)	**Credit Spread Sensitivities[1]**		**Swap Spread Sensitivities**	
Net income sensitivity[2]	**50 basis point decrease**	**50 basis point increase**	**20 basis point decrease**	**20 basis point increase**
December 31, 2022	**$ —**	**$ —**	**$ —**	**$ —**
December 31, 2021	$ (50)	$ 25	$ 25	$ (25)

(1) In most instances, credit spreads are assumed to revert to long-term insurance contract liability assumptions generally over a five-year period.

(2) Sensitivities have been rounded in increments of $25 million.

The credit and swap spread sensitivities assume a parallel shift in the indicated spreads across the entire term structure. Variations in realized spread changes based on different terms to maturity, geographies, asset classes and derivative types, underlying interest rate movements, and ratings may result in realized sensitivities being significantly different from those provided above. The credit spread sensitivity estimates exclude any credit spread impact that may arise in connection with asset positions held in segregated funds. Spread sensitivities are provided for the consolidated entity and may not be proportional across all reporting segments. Refer to Additional Cautionary Language and Key Assumptions Related to Sensitivities in this section for important additional information regarding these estimates.

Market Risk Management Strategies

We have implemented asset-liability management and hedging programs involving regular monitoring and adjustment of market risk exposures using assets, derivative instruments and repurchase agreements to maintain market risk exposures within our risk appetite. The general availability and cost of these hedging instruments may be adversely impacted by a number of factors including changes in interest rates, increased volatility in capital markets, and changes in the general market and regulatory environment within which these hedging programs operate. In particular, regulations for OTC derivatives could impose additional costs and could affect our hedging strategy. In addition, these programs may themselves expose us to other risks.

6.B.iv Real Estate Risk

Real estate risk is the potential for financial loss arising from fluctuations in the value of, or future cash flows from, our investments in real estate. We are exposed to real estate risk and may experience financial losses resulting from the direct ownership of real estate investments or indirectly through fixed income investments secured by real estate property, leasehold interests, ground rents, and purchase and leaseback transactions. Real estate price risk may arise from external market conditions, inadequate property analysis, inadequate insurance coverage, inappropriate real estate appraisals, or from environmental risk exposures. We hold real estate investments that support general account liabilities and surplus, and fluctuations in value will impact our profitability and financial position. A material and sustained increase in interest rates may lead to deterioration in real estate values.

6.B.v Foreign Currency Risk

Foreign currency risk is the result of mismatches in the currency of our assets and liabilities (inclusive of capital), and cash flows. This risk may arise from a variety of sources such as foreign currency transactions and services, foreign currency hedging, investments denominated in foreign currencies, investments in foreign subsidiaries and net income from foreign operations. Changes or volatility in foreign exchange rates, including a change to currencies that are fixed in value to another currency, could adversely affect our financial condition and results of operations.

As an international provider of financial services, we operate in a number of countries, with revenues and expenses denominated in several local currencies. In each country in which we operate, we generally maintain the currency profile of assets to match the currency of aggregate liabilities and required surplus. This approach provides an operational hedge against disruptions in local operations caused by currency fluctuations. Foreign currency derivative contracts such as currency swaps and forwards are used as a risk management tool to manage the currency exposure in accordance with our Asset Liability Management Policy. As at December 31, 2022 and December 31, 2021, the Company did not have a material foreign currency risk exposure on a functional currency basis.

Changes in exchange rates can affect our net income and surplus when financial results in functional currencies are translated into Canadian dollars. Net income earned outside of Canada is generally not currency hedged and a weakening in the local currency of our foreign operations relative to the Canadian dollar can have a negative impact on our net income reported in Canadian currency. A strengthening in the local currency of our foreign operations relative to the Canadian dollar would have the opposite effect. Regulatory capital ratios could also be impacted by changes in exchange rates.

6.B.vi Inflation Risk

Inflation risk is the potential for financial loss arising from changes in inflation rates. This risk results from insurance contract liabilities that are linked to market measures of inflation such as the Consumer Price Index. The primary sources for this risk exposure are from certain group and retail annuity contracts and group long term disability contracts. In these contracts, the annuity and disability benefit payments may be linked to an indexing formula containing an inflation price index. Benefit payments linked to inflation indices may also include various caps, floors and averaging mechanisms that vary across product designs.

Exposure to inflation risk is managed within our asset-liability management program, primarily by investing in inflation linked assets to match liability exposures. The resulting net income exposure to changes in inflation rates arising from benefit payments is not material.

The impact of inflation on general account expenses is discussed in Note 7.A.v Expense Risk.

6.B.vii Embedded Derivatives Risk

An embedded derivative is contained within a host insurance contract if it includes an identifiable condition to modify the cash flows that are otherwise payable. This section is applicable to those embedded derivatives where we are not required to, and have not measured (either separately or together with the host contract) the embedded derivative at fair value.

A significant market risk exposure from embedded derivatives arises in connection with the benefit guarantees on segregated fund contracts. These benefit guarantees are linked to underlying fund performance and may be triggered upon death, maturity, withdrawal, or annuitization. We have implemented hedging programs to mitigate a portion of this market risk exposure.

We are also exposed to significant interest rate risk or equity market risk from embedded derivatives in certain general account products and segregated fund contracts, which contain explicit or implicit investment guarantees in the form of minimum crediting rates, guaranteed premium rates, settlement options, and benefit guarantees. If investment returns fall below guaranteed levels, we may be required to increase liabilities or capital in respect of these contracts. The guarantees attached to these products may be applicable to both past premiums collected and future premiums not yet received. Segregated fund contracts provide benefit guarantees that are linked to underlying fund performance and may be triggered upon death, maturity, withdrawal, or annuitization. These products are included in our asset-liability management program and the residual interest rate exposure is managed within our risk appetite limits.

We are also exposed to interest rate risk through guaranteed annuitization options included primarily in retirement contracts and pension plans. These embedded options give policyholders the right to convert their investment into a pension on a guaranteed basis, thereby exposing us to declining long-term interest rates as the annuity guarantee rates come into effect. Embedded options on unit-linked pension contracts give policyholders the right to convert their fund at retirement into pensions on a guaranteed basis, thereby exposing us to declining interest rates and increasing equity market returns (increasing the size of the fund which is eligible for the guaranteed conversion basis). Guaranteed annuity options are included in our asset-liability management program and most of the interest rate and equity exposure is mitigated through hedging.

Significant changes or volatility in interest rates or spreads could have a negative impact on sales of certain insurance and annuity products, and adversely impact the expected pattern of redemptions (surrenders) on existing policies. Increases in interest rates or widening spreads may increase the risk that policyholders will surrender their contracts, potentially forcing us to liquidate assets at a loss and accelerate recognition of certain acquisition expenses. While we have established hedging programs in place and our insurance and annuity products often contain surrender mitigation features, these may not be sufficient to fully offset the adverse impact of the underlying losses.

Certain annuity and long-term disability contracts contain embedded derivatives as benefits are linked to the Consumer Price Index; however most of this exposure is hedged through the Company's ongoing asset-liability management program.

6.B.viii Additional Cautionary Language and Key Assumptions Related to Sensitivities

The market risk sensitivities are measures of estimated changes in net income and OCI for changes in interest rates and equity market price levels described above, based on interest rates, equity market prices and business mix in place as at the respective calculation dates. These sensitivities are calculated independently for each risk factor, generally assuming that all other risk variables stay constant. The sensitivities do not take into account indirect effects such as potential impacts on goodwill impairment or valuation allowances on deferred tax assets. The sensitivities are provided for the consolidated entity and may not be proportional across all reporting segments. Actual results can differ materially from these estimates for a variety of reasons, including differences in the pattern or distribution of the market shocks, the interaction between these risk factors, model error, or changes in other assumptions such as business mix, effective tax rates, policyholder behaviour, currency exchange rates and other market variables relative to those underlying the calculation of these sensitivities. The extent to which actual results may differ from the indicative ranges will generally increase with larger capital market movements. Our sensitivities as at December 31, 2021 have been included for comparative purposes only.

The sensitivities reflect the composition of our assets and liabilities as at December 31, 2022 and December 31, 2021, respectively. Changes in these positions due to new sales or maturities, asset purchases/sales, or other management actions could result in material changes to these reported sensitivities. In particular, these sensitivities reflect the expected impact of hedging activities based on the hedge programs in place as at the respective calculation dates. The actual impact of hedging activity can differ materially from that assumed in the determination of these indicative sensitivities due to ongoing hedge re-balancing activities, changes in the scale or scope of hedging activities, changes in the cost or general availability of hedging instruments, basis risk (i.e., the risk that hedges do not exactly replicate the underlying portfolio experience), model risk, and other operational risks in the ongoing management of the hedge programs or the potential failure of hedge counterparties to perform in accordance with expectations.

The sensitivities are based on methods and assumptions in effect as at December 31, 2022 and December 31, 2021, as applicable. Changes in the regulatory environment, accounting or actuarial valuation methods, models, or assumptions after those dates could result in material changes to these reported sensitivities. Changes in interest rates and equity market prices in excess of the ranges illustrated may result in other than proportionate impacts.

The market risk sensitivities reflect the IFRS 4 and IAS 39 accounting standards in effect as at December 31, 2022 and December 31, 2021. Adoption of IFRS 17 and IFRS 9 may result in changes to the magnitude or direction of the reported net income and OCI sensitivities. The impact on CSM will be disclosed as part of the IFRS 17 market risk sensitivities, as changes related to financial risk are first recorded through the CSM for insurance contracts measured using the VFA.

Our hedging programs may themselves expose us to other risks, including basis risk, volatility risk, and increased levels of derivative counterparty credit risk, liquidity risk, model risk and other operational risks. These factors may adversely impact the net effectiveness, costs, and financial viability of maintaining these hedging programs and therefore adversely impact our profitability and financial position. While our hedging programs are intended to mitigate these effects, residual risk, potential reported earnings and capital volatility remain. Hedge counterparty credit risk is managed by maintaining broad diversification, dealing primarily with highly-rated counterparties, and transacting through over-the-counter ("OTC") contracts cleared through central clearing houses, exchange-traded contracts or bilateral OTC contracts negotiated directly between counterparties that include credit support annexes.

For the reasons outlined above, our sensitivities should only be viewed as directional estimates of the underlying sensitivities of each factor under these specialized assumptions, and should not be viewed as predictors of our future net income, OCI, and capital. Given the nature of these calculations, we cannot provide assurance that actual impacts will be consistent with the estimates provided.

6.C Liquidity Risk

Risk Description

Liquidity risk is the possibility that we will not be able to fund all cash outflow commitments and collateral requirements as they fall due. This includes the risk of being forced to sell assets at depressed prices resulting in realized losses on sale. This risk also includes restrictions on our ability to efficiently allocate capital among our subsidiaries due to various market and regulatory constraints on the movement of funds. Our funding obligations arise in connection with the payment of policyholder benefits, expenses, reinsurance settlements, asset purchases, investment commitments, interest on debt, and dividends on common and preferred shares. Sources of available cash flow include general fund premiums and deposits, investment related inflows (such as maturities, principal repayments, investment income and proceeds of asset sales), proceeds generated from financing activities, and dividends and interest payments from subsidiaries. We have various financing transactions and derivative contracts under which we may be required to pledge collateral or to make payments to our counterparties for the decline in market value of specified assets. The amount of collateral or payments required may increase under certain circumstances (such as changes to interest rates, credit spreads, equity markets or foreign exchange rates), which could adversely affect our liquidity.

Liquidity Risk Management Governance and Control

We generally maintain a conservative liquidity position and employ a wide range of liquidity risk management practices and controls, which are described below:

- Liquidity risk governance practices are in place, including independent monitoring and review and reporting to senior management and the Risk Committee.
- Liquidity is managed in accordance with our Asset Liability Management Policy and operating guidelines.

- Liquidity contingency plans are maintained for the management of liquidity in a liquidity event.
- Stress testing is performed by comparing liquidity coverage risk metrics under a one-month stress scenario to our policy thresholds. These liquidity coverage risk metrics are measured and managed at the enterprise and legal entity levels.
- Stress testing of our collateral is performed by comparing collateral coverage ratios to our policy thresholds.
- Cash Management and asset-liability management programs support our ability to maintain our financial position by ensuring that sufficient cash flow and liquid assets are available to cover potential funding requirements. We invest in various types of assets with a view of matching them to our liabilities of various durations.
- Internal capital targets are established at an enterprise level to cover all risks and are above minimum regulatory and supervisory levels. Actual capital levels are monitored to ensure they exceed internal targets.
- We actively manage and monitor our capital and asset levels, and the diversification and credit quality of our investments.
- Various credit facilities for general corporate purposes are maintained.

We are subject to various regulations in the jurisdictions in which we operate. The ability of SLF Inc.'s subsidiaries to pay dividends and transfer funds is regulated in certain jurisdictions and may require local regulatory approvals and the satisfaction of specific conditions in certain circumstances. Through effective cash management and capital planning, SLF Inc. ensures that its subsidiaries, as a whole and on a stand-alone basis, are properly funded and maintain adequate liquidity to meet obligations, both individually and in aggregate.

Based on our historical cash flows and liquidity management processes, we believe that the cash flows from our operating activities will continue to provide sufficient liquidity for us to satisfy debt service obligations and to pay other expenses as they fall due.

The following table summarizes the contractual maturities of our significant financial liabilities and contractual commitments as at December 31, 2022 and 2021:

	Within 1 Year	1 Year to 3 Years	3 Years to 5 Years	Over 5 Years	Total
As at December 31, 2022					
Insurance and investment contract liabilities(1)	$ 14,924	$ 7,602	$ 7,885	$ 374,686	$ 405,097
Senior debentures(2)	14	28	28	548	618
Subordinated debt(2)	9	19	19	154	201
Bond repurchase agreements	2,725	—	—	—	2,725
Accounts payable and accrued expenses	4,707	—	—	—	4,707
Lease liabilities(3)	122	206	129	262	719
Secured borrowings from mortgage securitization	87	767	757	762	2,373
Funds withheld liabilities with related parties	—	—	—	9,529	9,529
Borrowed funds(2)	128	26	38	170	362
Preferred shares	144	289	289	4,712	5,434
Total liabilities	$ 22,860	$ 8,937	$ 9,145	$ 390,823	$ 431,765

	Within 1 Year	1 Year to 3 Years	3 Years to 5 Years	Over 5 Years	Total
Contractual commitments:[4]					
Contractual loans, equities and mortgages	**$ 1,134**	**$ 1,202**	**$ 375**	**$ 1,975**	**$ 4,686**
Total contractual commitments	**$ 1,134**	**$ 1,202**	**$ 375**	**$ 1,975**	**$ 4,686**
As at December 31, 2021					
Insurance and investment contract liabilities[1]	$ 13,672	$ 7,550	$ 7,590	$ 328,819	$ 357,631
Senior debentures[2]	14	28	28	555	625
Subordinated debt[2]	9	19	19	163	210
Bond repurchase agreements	2,324	—	—	—	2,324
Accounts payable and accrued expenses	3,726	—	—	—	3,726
Lease liabilities[3]	105	192	113	250	660
Secured borrowings from mortgage securitization	150	377	869	817	2,213
Funds withheld liabilities with related parties	—	—	—	9,347	9,347
Borrowed funds[2]	113	20	49	190	372
Preferred shares	144	289	289	4,857	5,579
Total liabilities	$ 20,257	$ 8,475	$ 8,957	$ 344,998	$ 382,687
Contractual commitments:[4]					
Contractual loans, equities and mortgages	$ 1,184	$ 1,023	$ 407	$ 1,455	$ 4,069
Total contractual commitments	$ 1,184	$ 1,023	$ 407	$ 1,455	$ 4,069

(1) These amounts represent the undiscounted estimated cash flows of insurance and investment contract liabilities on our Consolidated Statements of Financial Position. These cash flows include estimates related to the timing and payment of death and disability claims, policy surrenders, policy maturities, annuity payments, minimum guarantees on segregated fund products, policyholder dividends, amounts on deposit, commissions and premium taxes offset by contractual future premiums and fees on in-force contracts. These estimated cash flows are based on the best estimated assumptions used in the determination of insurance and investment contract liabilities. Due to the use of assumptions, actual cash flows will differ from these estimates.

(2) Payments due based on maturity dates and include expected interest payments. Actual redemption of certain securities may occur sooner as some include an option for the issuer to call the security at par at an earlier date.

(3) Lease liabilities are included on the Consolidated Statements of Financial Position due to the implementation of IFRS 16.

(4) Contractual commitments and operating lease commitments are not reported on our Consolidated Statements of Financial Position. Additional information on these commitments is included in Note 23.

7. Insurance Risk Management

7.A Insurance Risk

Risk Description

Insurance risk is the uncertainty of product performance due to actual experience emerging differently than expected in the areas of policyholder behaviour, mortality, morbidity and longevity. In addition, product design and pricing, expense and reinsurance risks impact multiple risk categories, including insurance risk.

Insurance Risk Management Governance and Control

We employ a wide range of insurance risk management practices and controls, as outlined below:

- Insurance risk governance practices are in place, including independent monitoring and review and reporting to senior management and the Risk Committee.
- Income and regulatory capital sensitivities are monitored, managed and reported against pre-established risk appetite limits for policyholder behaviour, mortality, morbidity and longevity risks.
- Comprehensive Insurance Risk Policy, guidelines and practices are in place.

- The global underwriting manual aligns underwriting practices with our corporate risk management standards and ensures a consistent approach in insurance underwriting.
- Board-approved maximum retention limits are in place. Amounts issued in excess of these limits are reinsured.
- Detailed procedures, including criteria for approval of risks and for claims adjudication are established and monitored for each business segment.
- Underwriting and risk selection standards and procedures are established and overseen by the corporate underwriting and claims risk management function.
- Diversification and risk pooling is managed by aggregation of exposures across product lines, geography and distribution channels.
- We use reinsurance to limit losses, minimize exposure to significant risks and to provide additional capacity for growth.
- The Insurance Risk Policy and Investment & Credit Risk Policy establish acceptance criteria and protocols to monitor the level of reinsurance ceded to any single reinsurer or group of reinsurers.
- Reinsurance counterparty risk is monitored, including annual reporting of reinsurance exposure to the Risk Committee.
- Concentration risk exposure is monitored on group policies in a single location to avoid a catastrophic event occurrence resulting in a significant impact.
- Various limits, restrictions and fee structures are introduced into plan designs in order to establish a more homogeneous policy risk profile and limit potential for anti-selection.
- Regulatory solvency requirements include risk-based capital requirements and are monitored regularly.
- The Product Design and Pricing Policy requires detailed risk assessment and pricing provision for material risks.
- Company specific and industry level experience studies and sources of earnings analysis are monitored and factored into valuation, renewal and new business pricing processes.
- Stress-testing techniques, such as FCT, are used to measure the effects of large and sustained adverse movements in insurance risk factors.
- Insurance contract liabilities are established in accordance with Canadian actuarial standards of practice.
- Internal capital targets are established at an enterprise level to cover all risks and are above minimum regulatory and supervisory levels. Actual capital levels are monitored to ensure they exceed internal targets.

Our Insurance Risk Policy sets maximum global retention limits and related management standards and practices that are applied to reduce our exposure to large claims. Amounts in excess of the Board-approved maximum retention limits are reinsured. On a single life or joint-first-to-die basis retention limit is $40 in Canada and US $40 outside of Canada. For survivorship life insurance, our maximum global retention limit is $50 in Canada and US $50 outside of Canada. In certain markets and jurisdictions, retention levels below the maximum are applied. Reinsurance is utilized for numerous products in most business segments, and placement is done on an automatic basis for defined insurance portfolios and on a facultative basis for individual risks with certain characteristics.

Our reinsurance coverage is well diversified and controls are in place to manage exposure to reinsurance counterparties. Reinsurance exposures are monitored to ensure that no single reinsurer represents an undue level of credit risk. This includes performing periodic due diligence on our reinsurance counterparties as well as internal credit assessments on counterparties with which we have material exposure. While reinsurance arrangements provide for the recovery of claims arising from the liabilities ceded, we retain primary responsibility to the policyholders.

Specific insurance risks and our risk management strategies are discussed below in further detail. The sensitivities provided below reflect the impact of any applicable ceded reinsurance arrangements.

7.A.i Policyholder Behaviour Risk

Risk Description

We can incur losses due to adverse policyholder behaviour relative to the assumptions used in the pricing and valuation of products with regard to lapse of policies or exercise of other embedded policy options.

Uncertainty in policyholder behaviour can arise from several sources including unexpected events in the policyholder's life circumstances, the general level of economic activity (whether higher or lower than expected), changes in the financial and capital markets, changes in pricing and availability of current products, the introduction of new products, changes in underwriting technology and standards, as well as changes in our financial strength or reputation. Uncertainty in future cash flows affected by policyholder behaviour can be further exacerbated by irrational behaviour during times of economic turbulence or at key option exercise points in the life of an insurance contract.

For individual life insurance products where fewer terminations would be financially adverse to us, shareholders' net income and equity would be decreased by about $220 (2021 — $215) if the termination rate assumption were reduced by 10%. For products where more terminations would be financially adverse to us, shareholders' net income and equity would be decreased by about $235 (2021 — $225) if the termination rate assumption were increased by 10%. These sensitivities reflect the impact of any applicable ceded reinsurance arrangements and the IFRS 4 accounting standards. Adoption of IFRS 17 may result in changes to the magnitude or direction of the reported net income sensitivities.

Policyholder Behaviour Risk Management Governance and Control

Various types of provisions are built into many of our products to reduce the impact of uncertain policyholder behaviour. These provisions include:

- Surrender charges that adjust the payout to the policyholder by taking into account prevailing market conditions.
- Limits on the amount that policyholders can surrender or borrow.
- Restrictions on the timing of policyholders' ability to exercise certain options.
- Restrictions on both the types of funds Clients can select and the frequency with which they can change funds.
- Policyholder behaviour risk is also mitigated through reinsurance on some insurance contracts.

Internal experience studies are used to monitor, review and update policyholder behaviour assumptions as needed, which could result in updates to policy liabilities.

7.A.ii Mortality and Morbidity Risk

Risk Description

Mortality and morbidity risk is the risk that future experience could be worse than the assumptions used in the pricing and valuation of products. Mortality and morbidity risk can arise in the normal course of business through random fluctuation in realized experience, through catastrophes, as a result of a pandemic, or in association with other risk factors such as product development and pricing or model risk. Adverse mortality and morbidity experience could also occur through systemic anti-selection, which could arise due to poor plan design, or underwriting process failure or the development of investor-owned and secondary markets for life insurance policies.

External factors could adversely affect our life insurance, health insurance, critical illness, disability, long-term care insurance and annuity businesses. Morbidity experience could be unfavourably impacted by external events, such as pandemics, increases in disability claims during economic slowdowns and increases in high medical treatment costs and growth in utilization of specialty drugs. This introduces the potential for adverse financial volatility in our financial results.

For life insurance products, a 2% increase in the best estimate assumption would decrease shareholders' net income and equity by about $70 (2021 — $55). This sensitivity reflects the impact of any applicable ceded reinsurance arrangements and the IFRS 4 accounting standards. Adoption of IFRS 17 may result in changes to the magnitude or direction of the reported net income sensitivities.

For products where morbidity is a significant assumption, a 5% adverse change in the assumptions would reduce net income and equity by about $220 (2021 — $220). This sensitivity reflects the impact of any applicable ceded reinsurance arrangements and the IFRS 4 accounting standards. Adoption of IFRS 17 may result in changes to the magnitude or direction of the reported net income sensitivities.

Mortality and Morbidity Risk Management Governance and Control

Detailed uniform underwriting procedures have been established to determine the insurability of applicants and to manage exposure to large claims. These underwriting requirements are regularly scrutinized against industry guidelines and oversight is provided through a corporate underwriting and claim management function.

We do not have a high degree of concentration risk to single individuals or groups due to our well-diversified geographic and business mix. The largest portion of mortality risk within the Company is in North America. Individual and group insurance policies are underwritten prior to initial issue and renewals, based on risk selection, plan design, and rating techniques.

The Insurance Risk Policy approved by the Risk Committee includes limits on the maximum amount of insurance that may be issued under one policy and the maximum amount that may be retained. These limits vary by geographic region and amounts in excess of limits are reinsured to ensure there is no exposure to unreasonable concentration of risk.

7.A.iii Longevity Risk

Risk Description

Longevity risk is the potential for economic loss, accounting loss or volatility in earnings arising from adverse changes in rates of mortality improvement relative to the assumptions used in the pricing and valuation of products. This risk can manifest itself slowly over time as socioeconomic conditions improve and medical advances continue. It could also manifest itself more quickly, for example, due to medical breakthroughs that significantly extend life expectancy. Longevity risk affects contracts where benefits or costs are based upon the likelihood of survival and higher than expected improvements in policyholder life expectancy could therefore increase the ultimate cost of these benefits (for example, annuities, pensions, pure endowments, reinsurance, segregated funds, and specific types of health contracts). Additionally, our longevity risk exposure is increased for certain annuity products such as guaranteed annuity options by an increase in equity market levels.

For annuities products for which lower mortality would be financially adverse to us, a 2% decrease in the mortality assumption would decrease shareholders' net income and equity by about $120 (2021 — $150). These sensitivities reflect the impact of any applicable ceded reinsurance arrangements and the IFRS 4 accounting standards. Adoption of IFRS 17 may result in changes to the magnitude or direction of the reported net income sensitivities.

Longevity Risk Management Governance and Control

To improve management of longevity risk, we monitor research in the fields that could result in a change in expected mortality improvement. Stress-testing techniques are used to measure and monitor the impact of extreme mortality improvement on the aggregate portfolio of insurance and annuity products as well as our own pension plans.

7.A.iv Product Design and Pricing Risk

Risk Description

Product design and pricing risk is the risk a product does not perform as expected, causing adverse financial consequences. This risk may arise from deviations in realized experience versus assumptions used in the pricing of products. Risk factors include uncertainty concerning future investment yields, policyholder behaviour, mortality and morbidity experience, sales levels, mix of business, expenses and taxes. Although some of our products permit us to increase premiums or adjust other charges and credits during the life of the policy or contract, the terms of these policies or contracts may not allow for sufficient adjustments to maintain expected profitability. This could have an adverse effect on our profitability and capital position.

Product Design and Pricing Governance and Control

Our Product Design and Pricing Policy, approved by the Risk Committee, establishes the framework governing our product design and pricing practices and is designed to align our product offerings with our strategic objectives and risk-taking philosophy. Consistent with this policy, product development, design and pricing processes have been implemented throughout the Company. New products follow a stage-gate process with defined management approvals based on the significance of the initiative. Each initiative is subject to a risk assessment process to identify key risks and risk mitigation requirements, and is reviewed by multiple stakeholders. Additional governance and control procedures are listed below:

- Pricing models, methods, and assumptions are subject to periodic internal peer reviews.
- Experience studies, sources of earnings analysis, and product dashboards are used to monitor actual experience against those assumed in pricing and valuation.

- On experience rated, participating, and adjustable products, emerging experience is reflected through changes in policyholder dividend scales as well as other policy adjustment mechanisms such as premium and benefit levels.
- Limits and restrictions may be introduced into the design of products to mitigate adverse policyholder behaviour or apply upper thresholds on certain benefits.

7.A.v Expense Risk

Risk Description

Expense risk is the risk that future expenses are higher than the assumptions used in the pricing and valuation of products. This risk can arise from general economic conditions, unexpected increases in inflation, slower than anticipated growth, or reduction in productivity leading to increases in unit expenses. Expense risk occurs in products where we cannot or will not pass increased costs onto the Client and will manifest itself in the form of a liability increase or a reduction in expected future profits.

The sensitivity of liabilities for insurance contracts to a 5% increase in unit expenses would result in a decrease in shareholders' net income and equity of about $165 (2021 — $155). These sensitivities reflect the impact of any applicable ceded reinsurance arrangements and the IFRS 4 accounting standards. Adoption of IFRS 17 may result in changes to the magnitude or direction of the reported net income sensitivities.

Expenses Risk Management Governance and Control

We closely monitor expenses through an annual budgeting process and ongoing monitoring of any expense gaps between unit expenses assumed in pricing and actual expenses.

7.A.vi Reinsurance Risk

Risk Description

We purchase reinsurance for certain risks underwritten by our various insurance businesses. Reinsurance risk is the risk of financial loss due to adverse developments in reinsurance markets (for example, discontinuance or diminution of reinsurance capacity, or an increase in the cost of reinsurance), insolvency of a reinsurer or inadequate reinsurance coverage.

Changes in reinsurance market conditions, including actions taken by reinsurers to increase rates on existing and new coverage and our ability to obtain appropriate reinsurance, may adversely impact the availability or cost of maintaining existing or securing new reinsurance capacity, with adverse impacts on our business strategies, profitability and financial position. There is a possibility of rate increases or renegotiation of some of the legacy reinsurance contracts by a few of our reinsurers, as they continue to review and optimize their business models. In addition, changes to the regulatory treatment of reinsurance arrangements could have an adverse impact on our capital position.

Reinsurance Risk Management Governance and Control

We have an Insurance Risk Policy and an Investment & Credit Risk Policy approved by the Risk Committee, which set acceptance criteria and processes to monitor the level of reinsurance ceded to any single reinsurer. These policies also set minimum criteria for determining which reinsurance companies qualify as suitable reinsurance counterparties having the capability, expertise, governance practices and financial capacity to assume the risks being considered. Additionally, these policies require that all agreements include provisions to allow action to be taken, such as recapture of ceded risk (at a potential cost to the Company), in the event that the reinsurer loses its legal ability to carry on business through insolvency or regulatory action. Periodic due diligence is performed on the reinsurance counterparties with which we do business and internal credit assessments are performed on reinsurance counterparties with which we have material exposure. Reinsurance counterparty credit exposures are monitored closely and reported annually to the Risk Committee.

New sales of our products can be discontinued or changed to reflect developments in the reinsurance markets. Rates for our in-force reinsurance treaties can be either guaranteed or adjustable for the life of the ceded policy. In order to diversify reinsurance risk, there is generally more than one reinsurer supporting a reinsurance pool.

8. Other Assets

As at December 31,	2022	2021
Accounts receivable[1]	**$ 2,112**	$ 1,124
Investment income due and accrued	**1,295**	1,091
Property and equipment	**356**	490
Right-of-use assets	**477**	466
Deferred acquisition costs	**158**	172
Prepaid expenses	**979**	334
Premium receivable	**780**	637
Accrued post-retirement benefit assets (Note 25)	**79**	62
Other	**84**	61
Total other assets	**$ 6,320**	$ 4,437

[1] Includes accounts receivable arising from related party transactions as described in Note 24.

9. Goodwill and Intangible Assets

9.A Goodwill

Changes in the carrying amount of goodwill acquired through business combinations by reportable business segment are as follows:

	Canada	U.S.	Asia	Corporate	Total
Balance, January 1, 2021	$ 297	$ 1,023	$ 665	$ 187	$ 2,172
Acquisitions (Note 3)	—	—	3	—	3
Foreign exchange rate movements	—	(7)	(9)	(3)	(19)
Balance, December 31, 2021	$ 297	$ 1,016	$ 659	$ 184	$ 2,156
Impairment[1]	—	—	—	(170)	(170)
Foreign exchange rate movements	**—**	**73**	**41**	**(14)**	**100**
Balance, December 31, 2022	**$ 297**	**$ 1,089**	**$ 700**	**$ —**	**$ 2,086**

[1] The sale of Sun Life UK resulted in an impairment charge of $170 for the UK CGU within Corporate. See Note 3 for details.

The carrying amounts of goodwill allocated to our CGUs or groups of CGUs are as follows:

As at December 31,	2022	2021
Canada	**$ 297**	$ 297
U.S.[1]		
Group Benefits	**1,034**	1,016
Dental	**55**	—
Asia	**700**	659
Corporate		
UK	**—**	184
Total	**$ 2,086**	$ 2,156

[1] Reflects a change in presentation in our U.S. business segment as two CGU groups effective June 1, 2022.

Goodwill acquired in business combinations is allocated to the CGUs or groups of CGUs that are expected to benefit from the synergies of the particular acquisition.

Goodwill is assessed for impairment annually or more frequently if events or circumstances occur that may result in the recoverable amount of a CGU falling below its carrying value. The recoverable amount is the higher of fair value less costs of disposal and value in use. We use fair value less costs of disposal as the recoverable amount.

We use the best evidence of fair value less costs of disposal as the price obtainable for the sale of a CGU, or group of CGUs. Fair value less costs of disposal is initially assessed by looking at recently completed market comparable transactions. In the absence of such comparables, we use either an appraisal methodology (with market assumptions commonly used in the valuation of insurance companies or asset management companies) or a valuation multiples methodology. The fair value measurements are categorized in Level 3 of the fair value hierarchy.

The most recent calculations from 2018 for certain CGUs and groups of CGUs were carried forward and used in the impairment test in the current period as: (i) the recoverable amount for these CGUs and groups of CGUs exceeded the carrying amount by a substantial margin, (ii) the assets and liabilities making up the CGUs and groups of CGUs had not changed significantly, and (iii) the likelihood that the carrying value would exceed the recoverable amount was remote, based on an analysis of events that have occurred and circumstances that have changed. The key drivers impacting the recoverable amount from 2018 are consistent with the key assumptions below.

Under the appraisal methodology, fair value is assessed based on best estimates of future income, expenses, level and cost of capital over the lifetime of the policies and, where appropriate, adjusted for items such as transaction costs. The value ascribed to new business is based on sales anticipated in our business plans, sales projections for the valuation period based on reasonable growth assumptions, and anticipated levels of profitability of that new business. In calculating the value of new business, future sales are projected for 10 to 15 years. In some instances, market multiples are used to approximate the explicit projection of new business.

The discount rates applied reflect the nature of the environment for that CGU. The discount rates used range from 9.25% to 12.50% (after tax). More established CGUs with a stronger brand and competitive market position use discount rates at the low end of the range and CGUs with a weaker competitive position use discount rates at the high end of the range. The capital levels used are aligned with our business objectives.

Under the valuation multiples methodology, fair value is assessed with reference to multiples or ratios of comparable businesses. For life insurers and asset managers, these valuation multiples and ratios may include price-to-earnings or price-to-assets-under-management measures. This assessment takes into consideration a variety of relevant factors and assumptions, including expected growth, risk, and market conditions among others.

Judgment is used in estimating the recoverable amounts of CGUs and the use of different assumptions and estimates could result in material adjustments to the valuation of CGUs and the size of any impairment. Any material change in the key assumptions including those for capital, discount rates, the value of new business, and expenses, as well as cash flow projections used in the determination of recoverable amounts, may result in impairment charges, which could be material.

In considering the sensitivity of the key assumptions above, management determined that there is no reasonably possible change in any of the above that would result in the recoverable amount of any of the CGUs to be less than its carrying amount.

9.B Intangible Assets

Changes in intangible assets are as follows:

	Finite life		
	Internally generated software	Other	Total
Gross carrying amount			
Balance, January 1, 2021	$ 616	$ 641	$ 1,257
Additions	158	471	629
Acquisitions (Note 3)	—	16	16
Foreign exchange rate movements	—	(4)	(4)
Balance, December 31, 2021	$ 774	$ 1,124	$ 1,898
Additions	**163**	**19**	**182**
Foreign exchange rate movements	**5**	**53**	**58**
Balance, December 31, 2022	**$ 942**	**$ 1,196**	**$ 2,138**
Accumulated amortization and impairment losses			
Balance, January 1, 2021	$ (306)	$ (199)	$ (505)
Amortization charge for the year	(50)	(52)	(102)
Foreign exchange rate movements	1	—	1
Balance, December 31, 2021	$ (355)	$ (251)	$ (606)
Amortization charge for the year	**(51)**	**(54)**	**(105)**
Impairment of intangible assets	**(16)**	**(2)**	**(18)**
Foreign exchange rate movements	**(2)**	**(16)**	**(18)**
Balance, December 31, 2022	**$ (424)**	**$ (323)**	**$ (747)**
Net carrying amount, end of period:			
As at December 31, 2021	$ 419	$ 873	$ 1,292
As at December 31, 2022	**$ 518**	**$ 873**	**$ 1,391**

The components of the intangible assets are as follows:

As at December 31,	**2022**	2021
Finite life intangible assets:		
Distribution, sales potential of field force	**$ 87**	$ 91
Client relationships and asset administration contracts	**786**	782
Internally generated software	**518**	419
Total intangible assets	**$ 1,391**	$ 1,292

10. Insurance Contract Liabilities and Investment Contract Liabilities

10.A Insurance Contract Liabilities

10.A.i Description of Business

The company sells a variety of insurance contracts that include all forms of life, health and critical illness insurance sold to individuals and groups, life contingent annuities, accumulation annuities, and segregated fund products with guarantees.

10.A.ii Methods and Assumptions

General

The liabilities for insurance contracts represent the estimated amounts which, together with estimated future premiums and net investment income, will provide for outstanding claims, estimated future benefits, policyholders' dividends, taxes (other than income taxes), and expenses on in-force insurance contracts.

In determining our liabilities for insurance contracts, assumptions must be made about mortality and morbidity rates, lapse and other policyholder behaviour ("policyholder behaviour"), interest rates, equity market performance, asset default, inflation, expenses, and other factors over the life of our products. Most of these assumptions relate to events that are anticipated to occur many years in the future. Assumptions require significant judgment and regular review and, where appropriate, revision.

We use best estimate assumptions for expected future experience and apply margins for adverse deviations to provide for uncertainty in the choice of the best estimate assumptions. The amount of insurance contract liabilities related to the application of margins for adverse deviations to best estimate assumptions is called a provision for adverse deviations.

Best Estimate Assumptions

Best estimate assumptions are intended to be current, neutral estimates of the expected outcome as guided by Canadian actuarial standards of practice. The choice of best estimate assumptions takes into account current circumstances, past experience data (Company and/or industry), the relationship of past to expected future experience, anti-selection, the relationship among assumptions, and other relevant factors. For assumptions on economic matters, the assets supporting the liabilities and the expected policy for asset-liability management are relevant factors.

Margins for Adverse Deviations

The appropriate level of margin for adverse deviations on an assumption is guided by Canadian actuarial standards of practice. For most assumptions, the standard range of margins for adverse deviations is 5% to 20% of the best estimate assumption, and the actuary chooses from within that range based on a number of considerations related to the uncertainty in the determination of the best estimate assumption. The level of uncertainty, and hence the margin chosen, will vary by assumption and by line of business and other factors. Considerations that would tend to indicate a choice of margin at the high end of the range include:

- The statistical credibility of the Company's experience is too low to be the primary source of data for choosing the best estimate assumption
- Future experience is difficult to estimate
- The cohort of risks lacks homogeneity
- Operational risks adversely impact the ability to estimate the best estimate assumption
- Past experience may not be representative of future experience and the experience may deteriorate

Provisions for adverse deviations in future interest rates are included by testing a number of scenarios of future interest rates, some of which are prescribed by Canadian actuarial standards of practice, and determining the liability based on the range of possible outcomes. A scenario of future interest rates includes, for each forecast period between the statement of financial position date and the last liability cash flow, interest rates for risk-free assets, premiums for asset default, rates of inflation, and an investment strategy consistent with the Company's investment policy. The starting point for all future interest rate scenarios is consistent with the current market environment. If few scenarios are tested, the liability would be at least as great as the largest of the outcomes. If many scenarios are tested, the liability would be within a range defined by the average of the outcomes that are above the 60th percentile of the range of outcomes and the corresponding average for the 80th percentile.

Provisions for adverse deviations in future equity returns are included by scenario testing or by applying margins for adverse deviations. In blocks of business where the valuation of liabilities uses scenario testing of future equity returns, the liability would be within a range defined by the average of the outcomes that are above the 60th percentile of the range of outcomes and the corresponding average for the 80th percentile. In blocks of business where the valuation of liabilities does not use scenario testing of future equity returns, the margin for adverse deviations on common share dividends is between 5% and 20%, and the margin for adverse deviations on capital gains would be 20% plus an assumption that those assets reduce in value by 20% to 50% at the time when the reduction is most adverse. A 30% reduction is appropriate for a diversified portfolio of North American common shares and, for other portfolios, the appropriate reduction depends on the volatility of the portfolio relative to a diversified portfolio of North American common shares.

In choosing margins, we ensure that, when taken one at a time, each margin is reasonable with respect to the underlying best estimate assumption and the extent of uncertainty present in making that assumption, and also that, in aggregate, the cumulative impact of the margins for adverse deviations is reasonable with respect to the total amount of our insurance contract liabilities. Our margins are generally stable over time and are generally only revised to reflect changes in the level of uncertainty in the best estimate assumptions. Our margins tend to be at the mid-range, with the higher range used where there is greater uncertainty. When considering the aggregate impact of margins, the actuary assesses the consistency of margins for each assumption across each block of business to ensure there is no double counting or omission and to avoid choosing margins that might be mutually exclusive. In particular, the actuary chooses similar margins for blocks of business with similar characteristics, and also chooses margins that are consistent with other assumptions, including assumptions about economic factors. The actuary is guided by Canadian actuarial standards of practice in making these professional judgments about the reasonableness of margins for adverse deviations.

The best estimate assumptions and margins for adverse deviations are reviewed at least annually and revisions are made when appropriate. The choice of assumptions underlying the valuation of insurance contract liabilities is subject to external actuarial peer review.

Mortality

Mortality refers to the rates at which death occurs for defined groups of people. Life insurance mortality assumptions are generally based on the past five to ten years of experience. Our experience is combined with industry experience where our own experience is insufficient to be statistically valid. Assumed mortality rates for life insurance and annuity contracts include assumptions about future mortality improvement based on recent trends in population mortality and our outlook for future trends.

Morbidity

Morbidity refers to both the rates of accident or sickness and the rates of recovery therefrom. Most of our disability insurance is marketed on a group basis. We offer critical illness policies on an individual basis in Canada and Asia, long-term care on an individual basis in Canada, and medical stop-loss insurance is offered on a group basis in the U.S. In Canada, group morbidity assumptions are based on our five-year average experience, modified to reflect any emerging trend in recovery rates. For long-term care and critical illness insurance, assumptions are developed in collaboration with our reinsurers and are largely based on their experience. In the U.S., our experience is used for both medical stop-loss and disability assumptions, with some consideration of industry experience.

Policyholder Behaviour

Lapse

Policyholders may allow their policies to lapse prior to the end of the contractual coverage period by choosing not to continue to pay premiums or by surrendering their policy for the cash surrender value. Assumptions for lapse experience on life insurance are generally based on our five-year average experience. Lapse rates vary by plan, age at issue, method of premium payment, and policy duration.

Premium Payment Patterns

For universal life contracts, it is necessary to set assumptions about premium payment patterns. Studies prepared by industry or the actuarial profession are used for products where our experience is insufficient to be statistically valid. Premium payment patterns usually vary by plan, age at issue, method of premium payment, and policy duration.

Expense

Future policy-related expenses include the costs of premium collection, claims adjudication and processing, actuarial calculations, preparation and mailing of policy statements, and related indirect expenses and overhead. Expense assumptions are mainly based on our recent experience using an internal expense allocation methodology. Inflationary increases assumed in future expenses are consistent with the future interest rates used in scenario testing.

Investment Returns

Interest Rates

We generally maintain distinct asset portfolios for each major line of business. In the valuation of insurance contract liabilities, the future cash flows from insurance contracts and the assets that support them are projected under a number of interest rate scenarios, some of which are prescribed by Canadian actuarial standards of practice. Reinvestments and disinvestments take place according to the specifications of each scenario, and the liability is set based on the range of possible outcomes.

Non-Fixed Income Rates of Return

We are exposed to equity markets through our segregated fund products (including variable annuities) that provide guarantees linked to underlying fund performance and through insurance products where the insurance contract liabilities are supported by non-fixed income assets.

For segregated fund products (including variable annuities), we have implemented hedging programs involving the use of derivative instruments to mitigate a large portion of the equity market risk associated with the guarantees. The cost of these hedging programs is reflected in the liabilities. The equity market risk associated with anticipated future fee income is not hedged.

The majority of non-fixed income assets that are designated as FVTPL support our participating and universal life products where investment returns are passed through to policyholders through routine changes in the amount of dividends declared or in the rate of interest credited. In these cases, changes in non-fixed income asset values are largely offset by changes in insurance contract liabilities.

Asset Default

As required by Canadian actuarial standards of practice, insurance contract liabilities include a provision for possible future default of the assets supporting those liabilities. The amount of the provision for asset default included in the insurance contract liabilities is based on possible reductions in future investment yield that vary by factors such as type of asset, asset credit quality (rating), duration, and country of origin. The asset default assumptions are comprised of a best estimate plus a margin for adverse deviations, and are intended to provide for loss of both principal and income. Best estimate asset default assumptions by asset category and geography are derived from long-term studies of industry experience and the Company's experience. Margins for adverse deviation are chosen from the standard range (of 25% to 100%) as recommended by Canadian actuarial standards of practice based on the amount of uncertainty in the choice of best estimate assumption. The credit quality of an asset is based on external ratings if available (public bonds) and internal ratings if not (mortgages and loans). Any assets without ratings are treated as if they are rated below investment grade.

In contrast to asset impairment provisions and changes in FVTPL assets arising from impairments, both of which arise from known credit events, the asset default provision in the insurance contract liabilities covers losses related to possible future (unknown) credit events. Canadian actuarial standards of practice require the asset default provision to be determined taking into account known impairments that are recognized elsewhere on the statement of financial position. The asset default provision included in the insurance contract liabilities is reassessed each reporting period in light of impairments, changes in asset quality ratings, and other events that occurred during the period.

10.A.iii Insurance Contract Liabilities

As at December 31, 2022	Canada	U.S.	Asia	Corporate[1]	Total
Individual participating life	$ 27,394	$ 5,060	$ 11,574	$ 634	$ 44,662
Individual non-participating life and health	13,681	13,235	11,397	266	38,579
Group life and health	11,693	5,556	33	(5)	17,277
Individual annuities	8,384	17	6	3,074	11,481
Group annuities	19,716	1	67	—	19,784
Insurance contract liabilities before other policy liabilities	80,868	23,869	23,077	3,969	131,783
Add: Other policy liabilities[2]	3,583	2,101	2,702	246	8,632
Total insurance contract liabilities	$ 84,451	$ 25,970	$ 25,779	$ 4,215	$ 140,415

(1) Primarily business from the UK and run-off reinsurance operations. Includes UK business of $563 for Individual participating life, $154 for Individual non-participating life and health, $2,918 for Individual annuities, and $200 for Other policy liabilities.

(2) Consists of amounts on deposit, policy benefits payable, provisions for unreported claims, provisions for policyholder dividends, and provisions for experience rating refunds.

As at December 31, 2021	Canada	U.S.	Asia	Corporate[1]	Total
Individual participating life	$ 28,205	$ 5,150	$ 12,982	$ 860	$ 47,197
Individual non-participating life and health	15,735	14,425	11,774	329	42,263
Group life and health	11,682	5,537	34	17	17,270
Individual annuities	9,538	16	5	4,729	14,288
Group annuities	18,765	5	69	—	18,839
Insurance contract liabilities before other policy liabilities	83,925	25,133	24,864	5,935	139,857
Add: Other policy liabilities[2]	3,559	1,839	2,523	211	8,132
Total insurance contract liabilities	$ 87,484	$ 26,972	$ 27,387	$ 6,146	$ 147,989

(1) Primarily business from the UK and run-off reinsurance operations. Includes UK business of $771 for Individual participating life, $207 for Individual non-participating life and health, $4,546 for Individual annuities, and $164 for Other policy liabilities.

(2) Consists of amounts on deposit, policy benefits payable, provisions for unreported claims, provisions for policyholder dividends, and provisions for experience rating refunds.

10.A.iv Changes in Insurance Contract Liabilities and Reinsurance Assets

For the years ended December 31,	2022			2021		
	Insurance contract liabilities	**Reinsurance assets**	**Net**	Insurance contract liabilities	Reinsurance assets	Net
Balances before Other policy liabilities and assets as at January 1,	**$ 139,857**	**$ 12,377**	**$ 127,480**	$ 137,914	$ 13,151	$ 124,763
Change in balances on in-force policies	**(15,310)**	**(2,595)**	**(12,715)**	(1,564)	(548)	(1,016)
Balances arising from new policies	**3,473**	**81**	**3,392**	3,948	74	3,874
Method and assumption changes	**907**	**984**	**(77)**	62	(107)	169
Increase (decrease) in Insurance contract liabilities and Reinsurance assets	**(10,930)**	**(1,530)**	**(9,400)**	2,446	(581)	3,027
Other[(1)]	**(2)**	**—**	**(2)**	—	(109)	109
Foreign exchange rate movements	**2,858**	**757**	**2,101**	(503)	(84)	(419)
Balances before Other policy liabilities and assets	**131,783**	**11,604**	**120,179**	139,857	12,377	127,480
Other policy liabilities and assets	**8,632**	**1,722**	**6,910**	8,132	1,589	6,543
Total Insurance contract liabilities and Reinsurance assets, December 31	**$ 140,415**	**$ 13,326**	**$ 127,089**	$ 147,989	$ 13,966	$ 134,023

(1) Recapture of reinsurance contracts.

10.A.v Impact of Method and Assumption Changes

Impacts of method and assumption changes on Insurance contract liabilities, net of Reinsurance assets, are as follows:

For the year ended December 31, 2022	**Net increase (decrease) before income taxes**	**Description**
Mortality / Morbidity	**$ (97)**	Updates to reflect mortality/ morbidity experience in all jurisdictions. The largest items were favourable mortality impacts in the UK in Corporate and in Group Retirement Services in Canada offset partially by adverse morbidity impacts in Sun Life Health in Canada.
Policyholder behaviour	**65**	Updates to lapse and policyholder behaviour in all jurisdictions. The largest item was an adverse lapse impact in Vietnam in Asia.
Expenses	**9**	Updates to reflect expense experience.
Investment returns	**13**	Updates to various investment-related assumptions.
Model enhancements and other	**(67)**	Various enhancements and methodology changes.
Total impact	**$ (77)**	

For the year ended December 31, 2021	Net increase (decrease) before income taxes	Description
Mortality / Morbidity	$ (86)	Updates to reflect mortality/ morbidity experience in all jurisdictions.
Policyholder behaviour	45	Updates to policyholder behaviour in all jurisdictions. The largest item was in U.S. in-force Management.
Expenses	(189)	Updates to reflect expense experience and margins in all jurisdictions. The largest item was a reduction in expense margins.
Investment returns	417	Updates to various investment-related assumptions across the Company. The largest items were the updates to promulgated Ultimate Reinvestment Rate, promulgated maximum net credit spreads, and a reduction to the best estimate real estate assumption in all jurisdictions.
Model enhancements and other	(18)	Various enhancements and methodology changes across all jurisdictions.
Total impact	$ 169	

10.B Investment Contract Liabilities

10.B.i Description of Business

The following are the types of investment contracts in-force:

- Term certain payout annuities in Canada
- Guaranteed Investment Contracts in Canada
- Unit-linked products issued in the UK and Hong Kong
- Non-unit-linked pensions contracts issued in the UK and Hong Kong

10.B.ii Methods and Assumptions

Investment Contracts with Discretionary Participation Features

Investment contracts with DPF are measured using the same approach as insurance contracts.

Investment Contracts without Discretionary Participation Features

Investment contracts without DPF are measured at FVTPL if by doing so, a potential accounting mismatch is eliminated or significantly reduced or if the contract is managed on a fair value basis. Other investment contracts without DPF are measured at amortized cost.

The fair value liability is measured through the use of prospective discounted cash-flow techniques. For unit-linked contracts, the fair value liability is equal to the current unit fund value, plus additional non-unit liability amounts on a fair value basis if required. For non-unit-linked contracts, the fair value liability is equal to the present value of cash flows.

Amortized cost is measured at the date of initial recognition as the fair value of consideration received, less the net effect of principal payments such as transaction costs and front-end fees. At each reporting date, the amortized cost liability is measured as the present value of future cash flows discounted at the effective interest rate where the effective interest rate is the rate that equates the discounted cash flows to the liability at the date of initial recognition.

10.B.iii Investment Contract Liabilities

As at December 31, 2022	Canada	Asia	Corporate	Total
Individual participating life	$ —	$ —	$ 4	$ 4
Individual non-participating life and health	—	187	2	189
Individual annuities	2,550	—	35	2,585
Group annuities	—	536	—	536
Total investment contract liabilities	$ 2,550	$ 723	$ 41	$ 3,314

For the year ended December 31, 2022, Investment contract liabilities of $3,314 are comprised of investment contracts with DPF of $754, investment contracts without DPF measured at amortized cost of $2,550, and investment contracts without DPF measured at fair value $10.

As at December 31, 2021	Canada	Asia	Corporate	Total
Individual participating life	$ —	$ —	$ 4	$ 4
Individual non-participating life and health	—	235	2	237
Individual annuities	2,487	1	37	2,525
Group annuities	—	602	—	602
Total investment contract liabilities	$ 2,487	$ 838	$ 43	$ 3,368

For the year ended December 31, 2021, Investment contract liabilities of $3,368 are comprised of investment contracts with DPF of $872, investment contracts without DPF measured at amortized cost of $2,487, and investment contracts without DPF measured at fair value of $9.

10.B.iv Changes in Investment Contract Liabilities

Changes in investment contract liabilities without DPF are as follows:

For the years ended December 31,	2022		2021	
	Measured at fair value	Measured at amortized cost	Measured at fair value	Measured at amortized cost
Balance as at January 1	$ 9	$ 2,487	$ 2	$ 2,690
Deposits	—	443	—	303
Interest	—	57	—	60
Withdrawals	—	(444)	—	(570)
Fees	—	(5)	—	(7)
Change in fair value	1	—	7	—
Other	—	12	—	10
Foreign exchange rate movements	—	—	—	1
Balance as at December 31	$ 10	$ 2,550	$ 9	$ 2,487

Changes in investment contract liabilities with DPF are as follows:

For the years ended December 31,	2022	2021
Balance as at January 1	**$ 872**	$ 497
Change in liabilities on in-force policies	**(165)**	(89)
Acquisitions (Note 3)	**—**	471
Foreign exchange rate movements	**47**	(7)
Balance as at December 31	**$ 754**	$ 872

10.C Gross Claims and Benefits Paid

For the years ended December 31,	2022	2021
Maturities and surrenders	**$ 3,747**	$ 3,204
Annuity payments	**2,124**	2,016
Death and disability benefits	**4,947**	4,873
Health benefits	**8,082**	7,229
Policyholder dividends and interest on claims and deposits	**1,551**	1,378
Total gross claims and benefits paid	**$ 20,451**	$ 18,700

10.D Total Assets Supporting Liabilities and Equity

The following tables show the total assets supporting liabilities for the product lines shown (including insurance contract and investment contract liabilities) and assets supporting equity and other:

As at December 31, 2022	**Debt securities**	**Equity securities**	**Mortgages and loans**	**Investment properties**	**Other**	**Total**
Individual participating life	**$ 23,513**	**$ 4,836**	**$ 10,802**	**$ 6,344**	**$ 4,885**	**$ 50,380**
Individual non-participating life and health	**16,872**	**1,805**	**15,029**	**3,103**	**14,844**	**51,653**
Group life and health	**6,525**	**24**	**10,404**	**117**	**5,021**	**22,091**
Individual annuities	**7,573**	**34**	**6,573**	**—**	**1,056**	**15,236**
Group annuities	**9,046**	**100**	**10,444**	**109**	**1,466**	**21,165**
Equity and other	**9,369**	**169**	**2,998**	**314**	**20,663**	**33,513**
Total assets	**$ 72,898**	**$ 6,968**	**$ 56,250**	**$ 9,987**	**$ 47,935**	**$ 194,038**

As at December 31, 2021	Debt securities	Equity securities	Mortgages and loans	Investment properties	Other	Total
Individual participating life	$ 26,715	$ 5,374	$ 9,559	$ 5,932	$ 4,800	$ 52,380
Individual non-participating life and health	23,105	1,947	13,878	2,614	14,343	55,887
Group life and health	7,168	30	9,556	92	4,757	21,603
Individual annuities	10,059	41	6,435	—	1,112	17,647
Group annuities	9,612	111	9,198	24	1,306	20,251
Equity and other	9,004	676	3,054	259	18,596	31,589
Total assets	$ 85,663	$ 8,179	$ 51,680	$ 8,921	$ 44,914	$ 199,357

10.E Changes in Insurance Contract Liabilities, Investment Contract Liabilities, Reinsurance Assets, and Segregated Funds

Changes in the balances of our insurance contract liabilities and investment contract liabilities, including the net transfers to (from) segregated funds, as well as changes in our reinsurance assets, consist of the following:

For the years ended December 31,	**2022**	2021
Increase (decrease) in insurance contract liabilities	**$ (10,930)**	$ 2,446
Decrease (increase) in reinsurance assets	**1,530**	581
Increase (decrease) in investment contract liabilities	**(107)**	(22)
Net transfer to (from) segregated funds	**(1,149)**	(351)
Total changes in insurance contract liabilities, investment contract liabilities, reinsurance assets, and segregated funds	**$ (10,656)**	$ 2,654

10.F Role of the Appointed Actuary

The Appointed Actuary is appointed by the Board and is responsible for ensuring that the assumptions and methods used in the valuation of policy liabilities and reinsurance recoverables are in accordance with accepted actuarial practice in Canada, applicable legislation, and associated regulations or directives.

The Appointed Actuary is required to provide an opinion regarding the appropriateness of the policy liabilities, net of reinsurance recoverables, at the statement dates to meet all policy obligations of the Company. Examination of supporting data for accuracy and completeness and analysis of our assets for their ability to support the amount of policy liabilities, net of reinsurance recoverables, are important elements of the work required to form this opinion.

The Appointed Actuary is required each year to investigate the financial condition of the Company and prepare a report for the Board. The 2022 analysis tested our capital adequacy until December 31, 2026, under various adverse economic and business conditions. The Appointed Actuary reviews the calculation of our LICAT Ratios.

11. Reinsurance

Reinsurance is used primarily to limit exposure to large losses. We have a retention policy that requires that such arrangements be placed with well-established, highly-rated reinsurers. Coverage is well-diversified and controls are in place to manage exposure to reinsurance counterparties. While reinsurance arrangements provide for the recovery of claims arising from the liabilities ceded, we retain primary responsibility to the policyholders.

11.A Reinsurance Assets

Reinsurance assets are measured using the amounts and assumptions associated with the underlying insurance contracts and in accordance with the terms of each reinsurance contract. Reinsurance assets are comprised of the following:

As at December 31, 2022	Canada	U.S.	Asia	Corporate[1]	Total
Individual participating life	$ 21	$ 18	$ 179	$ —	$ 218
Individual non-participating life and health	(281)	9,196	38	13	8,966
Group life and health	267	2,148	7	—	2,422
Individual annuities	—	—	—	1	1
Group annuities	(3)	—	—	—	(3)
Reinsurance assets before other policy assets	4	11,362	224	14	11,604
Add: Other policy assets[2]	97	1,469	117	39	1,722
Total Reinsurance assets	$ 101	$ 12,831	$ 341	$ 53	$ 13,326

[1] Primarily business from the UK and run-off reinsurance operations. Includes UK business of $13 for Individual non-participating life and health, and $1 for Individual annuities.
[2] Consists of amounts on deposit, policy benefits payable, provisions for unreported claims, provisions for policyholder dividends, and provisions for experience rating refunds.

As at December 31, 2021	Canada	U.S.	Asia	Corporate[1]	Total
Individual participating life	$ —	$ 7	$ 214	$ —	$ 221
Individual non-participating life and health	(547)	10,307	33	16	9,809
Group life and health	284	2,021	5	—	2,310
Individual annuities	—	—	—	15	15
Group annuities	22	—	—	—	22
Reinsurance assets before other policy assets	(241)	12,335	252	31	12,377
Add: Other policy assets[2]	95	1,374	81	39	1,589
Total Reinsurance assets	$ (146)	$ 13,709	$ 333	$ 70	$ 13,966

[1] Primarily business from the UK and run-off reinsurance operations. Includes UK business of $16 for Individual non-participating life and health, and $15 for Individual annuities.
[2] Consists of amounts on deposit, policy benefits payable, provisions for unreported claims, provisions for policyholder dividends, and provisions for experience rating refunds.

There was no impairment of Reinsurance assets in 2022 or 2021. Changes in Reinsurance assets are included in Note 10.A.iv.

11.B Reinsurance (Expenses) Recoveries

For the years ended December 31,	2022	2021
Recovered claims and benefits	$ 4,709	$ 4,486
Commissions	453	415
Reserve adjustments	22	45
Investment income ceded	2,280	39
Operating expenses and other	151	141
Total reinsurance (expenses) recoveries	$ 7,615	$ 5,126

11.C Reinsurance Gains or Losses

We did not enter into reinsurance arrangements with non-related parties that resulted in a gain or loss on inception in 2022 or 2021. Reinsurance arrangements with related parties are included in Note 24.

12. Other Liabilities

12.A Composition of Other Liabilities

As at December 31,	2022	2021
Accounts payable	**$ 2,366**	$ 1,490
Bank overdrafts and cash pooling	**6**	133
Repurchase agreements (Note 5)	**2,725**	2,324
Accrued expenses and taxes	**1,424**	1,406
Borrowed funds[1]	**326**	323
Accrued post-retirement benefit liability (Note 25)	**154**	397
Secured borrowings from mortgage securitization (Note 5)	**2,158**	2,007
Funds withheld liabilities with related parties (Note 24)	**9,529**	9,347
Lease liabilities	**577**	544
Obligations for securities borrowing	**73**	51
Other	**911**	697
Total other liabilities	**$ 20,249**	$ 18,719

(1) The change in Borrowed funds relates to net cash flow changes of $3 in 2022 (2021 — $31) and foreign exchange rate movements of $nil in both 2022 and 2021.

12.B Borrowed Funds

Borrowed funds include the following:

As at December 31,	Currency of borrowing	Maturity	2022	2021
Encumbrances on real estate	Cdn. dollars	Current – 2032	**$ 326**	$ 323
Total borrowed funds			**$ 326**	$ 323

Interest expense for the borrowed funds was $13 and $9 for 2022 and 2021, respectively. The aggregate maturities of borrowed funds are included in Note 6.

13. Senior Debentures and Innovative Capital Instruments

13.A Senior Debentures[1]

The following obligations are included in Senior debentures as at December 31:

	Interest rate	Earliest par call or redemption date	Maturity	2022	2021
Issued to Sun Life Capital Trust (“SLCT I”)					
Series B issued June 25, 2002	7.09%	June 30, 2032[2]	2052	**$ 200**	$ 200
Fair value				**$ 215**	$ 271

(1) All senior debentures are unsecured and redemptions are subject to regulatory approval.

(2) Redeemable in whole or in part on any interest payment date or in whole upon the occurrence of a Regulatory Event or Tax Event, as described in the debenture. Prior to June 30, 2032, the redemption price is the greater of par and a price based on the yield of a corresponding Government of Canada bond plus 0.32%; from June 30, 2032, the redemption price is par.

Fair value is determined based on quoted market prices for identical or similar instruments. When quoted market prices are not available, fair value is determined from observable market data by dealers that are typically the market makers. The fair value is categorized in Level 2 of the fair value hierarchy.

Interest expense for senior debentures was $14 for both 2022 and 2021.

13.B Innovative Capital Instruments

Innovative capital instruments consist of Sun Life ExchangEable Capital Securities ("SLEECS"), which were issued by SLCT I, established as a trust under the laws of Ontario. SLCT I issued Sun Life ExchangEable Capital Securities—Series B ("SLEECS B"), which are units representing an undivided beneficial ownership interest in the assets of that trust. SLEECS B are non-voting except in certain limited circumstances. Holders of the SLEECS B are eligible to receive semi-annual non-cumulative fixed cash distributions.

The proceeds of the issuances of the SLEECS B were used by SLCT I to purchase senior debentures of Sun Life Assurance. SLCT I is not consolidated by us. As a result, the innovative capital instruments are not reported on our Consolidated Financial Statements. However, the senior debentures issued by Sun Life Assurance to SLCT I are reported on our Consolidated Financial Statements.

The SLEECS B are structured to achieve Tier 1 regulatory capital treatment for SLF Inc. and Sun Life Assurance and, as such, have features of equity capital. No interest payments or distributions will be paid in cash by SLCT I on the SLEECS B if Sun Life Assurance fails to declare regular dividends (i) on its Class B Non-Cumulative Preferred Shares Series A, or (ii) on its public preferred shares, if any are outstanding (each, a "Missed Dividend Event"). If a Missed Dividend Event occurs, the net distributable funds of SLCT I will be distributed to Sun Life Assurance as the holder of Special Trust Securities of that trust.

If SLCT I fails to pay in cash the semi-annual interest payments or distributions on the SLEECS B in full for any reason other than a Missed Dividend Event, then, for a specified period of time, Sun Life Assurance will not declare dividends of any kind on any of its public preferred shares, and if no such public preferred shares are outstanding, SLF Inc. will not declare dividends of any kind on any of its preferred shares or common shares.

Each SLEECS B unit will be automatically exchanged for 40 non-cumulative perpetual preferred shares of Sun Life Assurance if any one of the following events occurs: (i) proceedings are commenced or an order is made for the winding-up of Sun Life Assurance; (ii) OSFI takes control of Sun Life Assurance or its assets; (iii) Sun Life Assurance's capital ratios fall below applicable thresholds; or (iv) OSFI directs Sun Life Assurance to increase its capital or provide additional liquidity and Sun Life Assurance either fails to comply with such direction or elects to have the SLEECS B automatically exchanged ("Automatic Exchange Event"). Upon an Automatic Exchange Event, former holders of the SLEECS B will cease to have any claim or entitlement to distributions, interest or principal against SLCT I and will rank as preferred shareholders of Sun Life Assurance in a liquidation of Sun Life Assurance.

The table below presents additional significant terms and conditions of the SLEECS:

Issuer	Issuance date	Distribution or interest payment dates	Annual yield	Redemption date at the issuer's option	Conversion date at the holder's option	Principal amount
Sun Life Capital Trust ("SLCT I")(1)(2)(3)(4)						
SLEECS B	June 25, 2002	June 30, December 31	7.093%	June 30, 2007	Any time	$ 200

(1) Subject to regulatory approval, SLCT I may (i) redeem any outstanding SLEECS, in whole or in part, on the redemption date specified above or on any distribution date thereafter and (ii) may redeem all, but not part of any class of SLEECS upon occurrence of a Regulatory Event or a Tax Event, prior to the redemption date specified above.

(2) The SLEECS B may be redeemed for cash equivalent to (i) the greater of the Early Redemption Price or the Redemption Price if the redemption occurs prior to June 30, 2032 or (ii) the Redemption Price if the redemption occurs on or after June 30, 2032. Redemption Price is equal to one thousand dollars plus the unpaid distributions, other than unpaid distributions resulting from a Missed Dividend Event, to the redemption date. Early Redemption Price for the SLEECS B is the price calculated to provide an annual yield, equal to the yield of a Government of Canada bond issued on the redemption date that has a maturity date of June 30, 2032, plus 32 basis points, plus the unpaid distributions, other than unpaid distributions resulting from a Missed Dividend Event, to the redemption date.

(3) The non-cumulative perpetual preferred shares of Sun Life Assurance issued upon an Automatic Exchange Event in respect of the SLEECS B will become convertible, at the option of the holder, into a variable number of common shares of SLF Inc. on distribution dates on or after December 31, 2032.

(4) Holders of SLEECS B may exchange, at any time, all or part of their SLEECS B units for non-cumulative perpetual preferred shares of Sun Life Assurance at an exchange rate for each SLEECS of 40 non-cumulative perpetual preferred shares of Sun Life Assurance. SLCT I will have the right, at any time before the exchange is completed, to arrange for a substituted purchaser to purchase SLEECS tendered for surrender to SLCT I so long as the holder of the SLEECS so tendered has not withheld consent to the purchase of its SLEECS. Any non-cumulative perpetual preferred shares issued in respect of an exchange by the holders of SLEECS B will become convertible, at the option of the holder, into a variable number of common shares of SLF Inc. on distribution dates on or after December 31, 2032.

14. Subordinated Debt

The following obligations are included in Subordinated debt as at December 31, and qualify as capital for Canadian regulatory purposes:

	Interest rate	Maturity	**2022**	2021
Sun Life Assurance:				
Issued May 15, 1998[(1)]	6.30%	2028	**$ 150**	$ 150
Total subordinated debt			**$ 150**	$ 150
Fair value			**$ 157**	$ 184

(1) 6.30% Debentures, Series 2, due 2028, issued by The Mutual Life Assurance Company of Canada, which subsequently changed its name to Clarica Life Insurance Company ("Clarica") and was amalgamated with Sun Life Assurance.

Fair value is determined based on quoted market prices for identical or similar instruments. When quoted market prices are not available, fair value is determined from observable market data by dealers that are typically the market makers. The fair value is categorized in Level 2 of the fair value hierarchy. Interest expense on subordinated debt was $10 for both 2022 and 2021.

15. Share Capital

The authorized share capital of Sun Life Assurance consists of the following:

- An unlimited number of common shares without nominal or par value. Each common share is entitled to one vote at meetings of the shareholders of Sun Life Assurance, except for meetings at which only holders of another specified class or series of shares of Sun Life Assurance are entitled to vote separately as a class or series, and meetings at which only policyholders of Sun Life Assurance are entitled to vote separately as policyholders.
- An unlimited number of Class A, Class B, Class C, Class D and Class E shares ("Preferred shares"), without nominal or par value, issuable in series. Before issuance of the shares, the Board is authorized to fix the number of shares for each series and to determine the designation, rights, privileges, restrictions, and conditions to be attached to the Class A, Class B, Class C, Class D, and Class E Shares of the series. Class A, Class B, Class C and Class E shares rank equally with one another and they are entitled to preference over Class D Shares and common shares with respect to dividend payments and return of capital. Holders of Class E shares will be entitled to vote under certain circumstances. Holders of the Class A, Class B, Class C and Class D shares are not entitled to vote.

Dividends and Restrictions on the Payment of Dividends

Under the *Insurance Companies Act* (Canada), Sun Life Assurance is prohibited from declaring or paying a dividend on any of its shares if there are reasonable grounds for believing that it is, or by paying the dividend would be, in contravention of: (i) the requirement that it maintains adequate capital and adequate and appropriate forms of liquidity, (ii) any regulations under the *Insurance Companies Act* (Canada) in relation to capital and liquidity, and (iii) any order by which OSFI directs it to increase its capital or provide additional liquidity.

Sun Life Assurance has covenanted that, if a distribution is not paid when due on any outstanding SLEECS issued by SLCT I, then Sun Life Assurance will not pay dividends on its public Preferred shares, if any are outstanding until the 12th month following the failure to pay the required distribution in full, unless the required distribution is paid to the holders of SLEECS. Public preferred shares means preferred shares issued by Sun Life Assurance which: (a) have been issued to the public (excluding any preferred shares held beneficially by affiliates of Sun Life Assurance); (b) are listed on a recognized stock exchange; and (c) have an aggregate liquidation entitlement of at least $200. As at December 31, 2022, Sun Life Assurance did not have outstanding any shares that qualify as public preferred shares.

Currently, the above limitations do not restrict the payment of dividends on the Preferred shares or common shares of Sun Life Assurance.

The declaration and payment of dividends on shares of Sun Life Assurance are at the sole discretion of the Board of Directors and will be dependent upon our earnings, financial condition and capital requirements. Dividends may be adjusted or eliminated at the discretion of the Board on the basis of these or other considerations.

15.A Common Shares

The common shares issued and outstanding are included in the following table. All common shares are held by SLF Inc.

	2022		2021	
Common shares (in millions of shares)	**Number of shares**	**Amount**	Number of shares	Amount
Balance, December 31[1]	**481**	**$ 3,835**	481	$ 3,835

[1] On September 17, 2021, Sun Life Assurance issued 30 million shares to SLF Inc. for an aggregate price of $740. On November 26, 2021, Sun Life Assurance issued an additional 24 million shares to SLF Inc. for an aggregate price of $600.

15.B Preferred Shares

The Preferred shares of Sun Life Assurance have been classified either as equity or as liabilities on the Consolidated Statements of Financial Position.

The issued and outstanding Preferred shares classified as equity qualify as capital for Canadian regulatory purposes and are as follows:

As at December 31,	**2022**		2021	
Preferred shares (in thousands of shares)	**Number of shares**	**Amount**	Number of shares	Amount
Class B, Series A shares[1]	**40**	**$ 1**	40	$ 1
Class C, Series 1 shares[2]	**28,000**	**700**	28,000	700
Balance, December 31	**28,040**	**$ 701**	28,040	$ 701

[1] Issued on October 19, 2001 to SLF Inc. at $25 per share. SLF Inc. is entitled to receive non-cumulative quarterly dividends of $0.375 per share.

[2] Issued on December 29, 2005 to SLF Inc. at $25 per share. SLF Inc. is entitled to receive non-cumulative quarterly dividends of $0.275 per share. Subject to regulatory approval, Sun Life Assurance may redeem these shares, in whole or in part, at a redemption price equal to $25 per share together with any declared and unpaid dividends.

Dividends on the Preferred shares classified as equity of $32 for 2022 (2021—$31) were recorded in Retained earnings on the Consolidated Statements of Changes in Equity and are deducted from Shareholder's net income (loss) when arriving at Common shareholder's net income (loss) in our Consolidated Statements of Operations.

The issued and outstanding Preferred shares classified as liabilities are as follows:

As at December 31,	2022		2021	
Preferred shares (in thousands of shares)	**Number of shares**	**Amount**	Number of shares	Amount
Class C, Series 2 shares[(1)]	**14,000**	**$ 350**	14,000	$ 350
Class C, Series 11 shares[(2)]	**14,000**	**350**	14,000	350
Class C, Series 12 shares[(3)]	**50,000**	**1,250**	50,000	1,250
Class C, Series 14 shares[(4)]	**32,000**	**800**	32,000	800
Balance, December 31	**110,000**	**$ 2,750**	110,000	$ 2,750

(1) Issued to SLF Inc. on September 30, 2008, at $25 per share. SLF Inc. is entitled to receive cumulative quarterly dividends of $0.328 per share. Subject to regulatory approval, on or after September 30, 2013, Sun Life Assurance may redeem these shares, in whole or in part, at a declining premium, together with any accrued and unpaid dividends. Subject to regulatory approval, on or after September 30, 2023, SLF Inc. may require Sun Life Assurance to redeem these shares, in whole or in part, at $25 per share together with any accrued and unpaid dividends. The shares are required to be redeemed on September 30, 2028 at $25 per share together with accrued and unpaid dividends as at that date. These shares qualify as capital for Canadian regulatory purposes.

(2) Issued to SLF Inc. on April 15, 2016, at $25 per share. SLF Inc. is entitled to receive cumulative quarterly dividends of $0.339 per share. Subject to regulatory approval, on or after March 31, 2041, Sun Life Assurance may redeem these shares, in whole or in part, at par together with accrued and any unpaid dividends to but not including the date on which redemption occurs. Subject to regulatory approval, the shares are required to be redeemed on March 31, 2046 at $25 per share together with accrued and unpaid dividends to, but not including March 31, 2046. These shares qualify as capital for Canadian regulatory purposes.

(3) Issued to SLF Inc. on December 29, 2015, at $25 per share. SLF Inc. is entitled to receive cumulative quarterly dividends of $0.344 per share. Subject to regulatory approval, on or after December 31, 2040, Sun Life Assurance may redeem these shares, in whole or in part, at par together with accrued and any unpaid dividends to but not including the date on which redemption occurs. Subject to regulatory approval, the shares are required to be redeemed on December 31, 2045 at $25 per share together with accrued and unpaid dividends to, but not including December 31, 2045. These shares qualify as capital for Canadian regulatory purposes.

(4) Issued to SLF Inc. on June 30, 2017, at $25 per share. SLF Inc. is entitled to receive cumulative quarterly dividends of $0.300 per share. Subject to regulatory approval, on or after June 30, 2032, Sun Life Assurance may redeem these shares, in whole or in part, at par together with accrued and any unpaid dividends to but not including the date on which redemption occurs. Subject to regulatory approval, the shares are required to be redeemed on June 30, 2037 at $25 per share together with accrued and unpaid dividends to, but not including June 30, 2037. These shares qualify as capital for Canadian regulatory purposes.

Dividends on the Preferred shares classified as liabilities of $144 for 2022 (2021—$163) were recorded in Interest expense on the Consolidated Statements of Operations.

16. Interests in Other Entities

16.A Subsidiaries

Our principal subsidiaries operate our insurance operations in the UK, the Philippines, Hong Kong, Indonesia and Vietnam. Our insurance operations in Canada and the U.S. are operated directly by Sun Life Assurance.

We are required to comply with various regulatory capital and solvency requirements in the jurisdictions in which we operate that may restrict our ability to access or use the assets of the group and to pay dividends. Further details on these restrictions are included in Notes 15 and 21.

16.B Joint Ventures and Associates

We have interests in various joint ventures and associates that principally operate in India, Malaysia, China, and the Philippines. We also have interests in joint ventures related to certain real estate investments in Canada. Our interests in these joint ventures and associates range from 24.99% to 50%. The following table summarizes, in aggregate, the financial information of these joint ventures and associates:

As at or for the years ended December 31,	**2022**	2021
Carrying amount of interests in joint ventures and associates	**$ 1,567**	$ 1,620
Our share of:		
Net income (loss)	**2**	115
Other comprehensive income (loss)	**(109)**	(14)
Total comprehensive income (loss)	**$ (107)**	$ 101

On October 12, 2021, our India joint venture, Aditya Birla Sun Life AMC Limited ("ABSLAMC") completed an Initial Public Offering ("IPO"). As a result of the IPO, our ownership interest was reduced by 12.5% and we generated gross proceeds of $430, which included a realized gain of $362 (post-tax $297). After the IPO, we retained ownership of the listed entity of 36.5%. We also reclassified $9 of accumulated OCI to net income as part of this transaction.

In 2022, we increased our investment in our joint ventures and associates by $69 (2021—$28), primarily in Canada. During 2022, we received dividends and other proceeds relating to our joint ventures and associates of $27 (2021—$382). We also incurred rental expenses of $17 (2021—$17) related to leases with our joint ventures and associates, with the remaining future rental payments payable to our joint ventures and associates totaling $167 over 10 years.

16.C Joint Operations

We invest jointly in investment properties and owner-occupied properties which are co-managed under contractual relationships with the other investors. We share in the revenues and expenses generated by these properties in proportion to our investment. The carrying amount of these jointly controlled assets, which is included in Investment properties and in Other Assets for owner-occupied properties, is $2,114 as at December 31, 2022 (December 31, 2021—$1,997). The fair value of these jointly controlled assets is $2,191 as at December 31, 2022 (December 31, 2021—$2,090).

16.D Unconsolidated Structured Entities

Sun Life Assurance and its subsidiaries have interests in various structured entities that are not consolidated by us. A structured entity is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements. We have an interest in a structured entity when we have a contractual or non-contractual involvement that exposes us to variable returns from the performance of the entity. Our interest includes investments held in securities or units issued by these entities and fees earned from management of the assets within these entities.

Information on our interests in unconsolidated structured entities is as follows:

As at December 31,			**2022**		2021	
Type of structured entity	**Type of investment held**	**Consolidated Statements of Financial Position line item**	**Carrying amount**	**Maximum exposure to loss**[1]	Carrying amount	Maximum exposure to loss[1]
Securitization entities	Debt securities	Debt securities	**$ 8,542**	**$ 8,542**	$ 8,478	$ 8,478
Securitization entities	Short-term securities	Cash, cash equivalents and short-term securities	**$ 790**	**$ 790**	$ 780	$ 780
Investment funds[2]	Investment fund units	Equity securities and other invested assets	**$ 6,299**	**$ 6,299**	$ 7,351	$ 7,351
Limited partnerships[3]	Limited partnership units	Other invested assets	**$ 4,696**	**$ 4,696**	$ 3,689	$ 3,689

(1) The maximum exposure to loss is the maximum loss that we could record through comprehensive income as a result of our involvement with these entities.
(2) Includes investments in funds managed by our joint ventures and other related parties with a carrying amount of $644 (2021—$810).
(3) Includes investments in limited partnerships managed by related parties with a carrying amount of $1,911 (2021—$1,298).

16.D.i Securitization Entities

Securitization entities are structured entities that are generally financed primarily through the issuance of debt securities that are backed by a pool of assets, such as mortgages or loans.

Our investments in third-party managed securitization entities consist of asset-backed securities, such as commercial mortgage-backed securities, residential mortgage-backed securities, collateralized debt obligations ("CDOs"), and commercial paper. These securities are generally large-issue debt securities designed to transform the cash flows from a specific pool of underlying assets into tranches providing various risk exposures for investment purposes. We do not provide financial or other support to these entities other than our original investment and therefore our maximum exposure to loss on these investments is limited to the carrying amount of our investment. We do not have control over these investments since we do not have power to direct the relevant activities of these entities, regardless of the level of our investment.

16.D.ii Investment Funds and Limited Partnerships

Investment funds and limited partnerships are investment vehicles that consist of a pool of funds collected from a group of investors for the purpose of investing in assets such as money market instruments, debt securities, equity securities, real estate, and other similar assets. Investment funds and limited partnerships are generally financed through the issuance of investment fund units or limited partnership units.

We hold units in investment funds and limited partnerships managed by third-party asset managers and related parties. The preceding table includes our investments in all investment funds, including exchange-traded funds and our investments in certain limited partnerships. Some of these investment funds and limited partnerships are structured entities. For all investment funds and limited partnerships, our maximum exposure to loss is equivalent to the carrying amount of our investment in the fund or partnership. Our investments in fund units and limited partnership units generally give us an undivided interest in the investment performance of a portfolio of underlying assets managed or tracked to a specific investment mandate for investment purposes. We do not have control over third-party managed investment funds or limited partnerships that are structured entities since we do not have power to direct their relevant activities.

17. Fee Income

For the years ended December 31,	2022	2021
Fee income from insurance contracts	**$ 1,160**	$ 1,170
Fee income from service contracts:		
Distribution fees	**291**	289
Fund management and other asset-based fees	**198**	198
Administrative service and other fees	**589**	593
Total fee income	**$ 2,238**	$ 2,250

Administrative service and other fees are primarily earned in the Canada segment. The fee income by business segment is presented in Note 4.

18. Operating Expenses, Commissions, and Premium Taxes

For the years ended December 31,	2022	2021
Operating expenses:		
Employee expenses(1)	**$ 2,655**	$ 2,700
Premises and equipment	**130**	153
Capital asset depreciation	**167**	171
Service fees	**636**	573
Amortization of intangible assets (Note 9)	**105**	102
Impairment of intangible assets (Note 9)	**18**	—
Impairment of goodwill (Note 9)	**170**	—
Other expenses	**1,122**	1,143
Operating expenses	**$ 5,003**	$ 4,842
Commissions	**2,270**	2,123
Premium taxes	**468**	428
Total operating expenses, commissions and premium taxes	**$ 7,741**	$ 7,393

(1) See table below for further details.

Employee expenses for the years ended December 31 consist of the following:

	2022	2021
Salaries, bonus, employee benefits	**$ 2,588**	$ 2,470
Share-based payments (Note 19)	**39**	209
Other personnel costs	**28**	21
Total employee expenses	**$ 2,655**	$ 2,700

19. Share-Based Payments

We have share-based payment plans that use notional units that are valued based on SLF Inc.'s common share price on the Toronto Stock Exchange ("TSX"). Any fluctuation in SLF Inc.'s common share price changes the value of the units, which affects our share-based payment compensation expense. Upon redemption of these units, payments are made to the employees with a corresponding reduction in the accrued liability. We use equity swaps and forwards to hedge our exposure to variations in cash flows due to changes in SLF Inc.'s common share price for all of these plans.

Details of these plans are as follows:

Senior Executives' Deferred Share Unit ("DSU") Plan: Under the DSU plan, designated executives may elect to receive all or a portion of their short-term incentive award in the form of DSUs. Each DSU is equivalent in value to one common share of SLF Inc. and earns dividend equivalents in the form of additional DSUs at the same rate as the dividends on common shares of SLF Inc. The designated executives must elect to participate in the plan prior to the beginning of the plan year and this election is irrevocable. Awards generally vest immediately; however, participants are not permitted to redeem the DSUs until after termination, death, or retirement. The value at the time of redemption will be based on the fair value of the common shares of SLF Inc. immediately before their redemption.

Sun Share Unit ("Sun Share") Plan: Under the Sun Share plan, participants are granted units that are equivalent in value to one common share of SLF Inc. and have a grant price equal to the average of the closing price of a common share of SLF Inc. on the TSX on the five trading days immediately prior to the date of grant. Participants generally hold units for up to 36 months from the date of grant. The units earn dividend equivalents in the form of additional units at the same rate as the dividends on common shares. Under this plan, some units are performance-based that may vest or become payable if we meet specified threshold performance targets. The plan provides for performance factors to motivate participants to achieve a higher return for shareholders (performance factors are determined through a multiplier that can be as low as zero or as high as two times the number of units that vest). Payments to participants are based on the number of units vested multiplied by the average closing price of a common share of SLF Inc. on the TSX on the five trading days immediately prior to the vesting date.

Additional information for other share-based payment plans: The units outstanding under these plans and the liabilities recognized for these units in our Consolidated Statements of Financial Position are summarized in the following table:

Number of units (in thousands)	Sun Shares	DSUs	Total
Units outstanding December 31, 2022	**3,341**	**631**	**3,972**
Units outstanding December 31, 2021	4,058	861	4,919
Liability accrued as at December 31, 2022	**$ 134**	**$ 40**	**$ 174**
Liability accrued as at December 31, 2021	$ 265	$ 59	$ 324

Compensation expense and the Income tax expense (benefit) for share-based payment plans for the years ended December 31 are shown in the following table. Since expenses for the DSUs are accrued as part of incentive compensation in the year awarded, the expenses below do not include these accruals. The expenses presented in the following table include increases in the liabilities for Sun Shares and DSUs due to changes in the fair value of the common shares of SLF Inc. and the accruals of the Sun Shares liabilities over the vesting period, and exclude any adjustment in expenses due to the impact of hedging.

For the years ended December 31,	2022	2021
Compensation expense	**$ 39**	$ 209
Income tax expense (benefit)	**$ (8)**	$ (53)

20. Income Taxes

20.A Deferred Income Taxes

The following represents the deferred tax assets and liabilities in the Consolidated Statements of Financial Position:

As at December 31,	2022	2021
Deferred tax assets[(1)]	**$ 2,279**	$ 1,777
Deferred tax liabilities[(1)]	**49**	79
Net deferred tax asset	**$ 2,230**	$ 1,698

[(1)] Our deferred tax assets and deferred tax liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred taxes relate to the same taxable entity and the same taxation authority.

The movement in net deferred tax assets for the years ended December 31, are as follows:

	Investments	**Policy liabilities[(1)]**	**Deferred acquisition costs**	**Losses available for carry forward**	**Pension and other employee benefits**	**Other**	**Total**
As at December 31, 2021	**$ (977)**	**$ 1,826**	**$ 70**	**$ 741**	**$ 117**	**$ (79)**	**$ 1,698**
Acquisitions (disposals)	**—**	**—**	**—**	**107**	**—**	**—**	**107**
Charged to statement of operations	**74**	**190**	**5**	**(36)**	**19**	**(61)**	**191**
Charged to other comprehensive income	**98**	**86**	**—**	**92**	**(71)**	**3**	**208**
Foreign exchange rate movements and Other	**8**	**12**	**7**	**11**	**—**	**(12)**	**26**
As at December 31, 2022	**$ (797)**	**$ 2,114**	**$ 82**	**$ 915**	**$ 65**	**$ (149)**	**$ 2,230**

[(1)] Consists of Insurance contract liabilities and Investment contract liabilities, net of Reinsurance assets.

	Investments	Policy liabilities[(1)]	Deferred acquisition costs	Losses available for carry forward	Pension and other employee benefits	Other	Total
As at December 31, 2020	$ (936)	$ 1,615	$ 77	$ 600	$ 154	$ (40)	$ 1,470
Acquisitions (disposals)	—	—	—	41	—	—	41
Charged to statement of operations	(74)	176	(4)	85	(42)	(27)	114
Charged to other comprehensive income	22	30	—	17	13	4	86
Foreign exchange rate movements and Other	11	5	(3)	(2)	(8)	(16)	(13)
As at December 31, 2021	$ (977)	$ 1,826	$ 70	$ 741	$ 117	$ (79)	$ 1,698

[(1)] Consists of Insurance contract liabilities and Investment contract liabilities, net of Reinsurance assets.

We have accumulated tax losses, primarily in Canada, the UK, Indonesia and Vietnam, totaling $3,925 (2021—$3,192). The benefit of these tax losses has been recognized to the extent that it is probable that the benefit will be realized. Unused tax losses for which a deferred tax asset has not been recognized amount to $564 as of December 31, 2022 (2021—$362), primarily in the UK, Indonesia and Vietnam. In addition, we have capital losses of $434 in the UK (2021—$452) for which a deferred tax asset of $108 (2021—$113) has not been recognized.

We will realize the benefit of tax losses carried forward in future years through a reduction in current income taxes as and when the losses are utilized. These tax losses are subject to examination by various tax authorities and could be reduced as a result of the adjustments to tax returns. Furthermore, legislative, business or other changes may limit our ability to utilize these losses.

Included in the deferred tax asset related to losses available for carry forward are tax benefits that have been recognized on losses incurred in either the current or the preceding year. In determining if it is appropriate to recognize these tax benefits, we rely on projections of future taxable profits, and we also consider tax planning opportunities that will create taxable income in the period in which the unused tax losses can be utilized.

The non-capital losses carried forward in Canada expire beginning in 2030. The operating and capital losses in the UK can be carried forward indefinitely. The non-capital losses in Indonesia and Vietnam can be carried forward five years.

We recognize a deferred tax liability on all temporary differences associated with investments in subsidiaries, branches, joint ventures and associates unless we are able to control the timing of the reversal of these differences and it is probable that these differences will not reverse in the foreseeable future. As at December 31, 2022, temporary differences associated with investments in subsidiaries, branches, joint ventures and associates for which a deferred tax liability has not been recognized amount to $5,657 (2021—$5,404).

20.B Income Tax Expense (Benefit)

20.B.i In our Consolidated Statements of Operations, Income tax expense (benefit) for the years ended December 31 has the following components:

	2022	2021
Current income tax expense (benefit):		
Current year	**$ 565**	$ 469
Adjustments in respect of prior years, including resolution of tax disputes	**(61)**	(29)
Total current income tax expense (benefit)	**504**	440
Deferred income tax expense (benefit):		
Origination and reversal of temporary differences	**(163)**	(98)
Adjustments in respect of prior years, including resolution of tax disputes	**48**	(11)
Tax expense (benefit) arising from unrecognized tax losses	**16**	4
Tax rate and other legislative changes	**(92)**	(9)
Total deferred income tax expense (benefit)	**(191)**	(114)
Total income tax expense (benefit)	**$ 313**	$ 326

20.B.ii Income tax benefit (expense) recognized directly in equity for the years ended December 31:

	2022	2021
Recognized in other comprehensive income:		
Current income tax benefit (expense)	**$ 2**	$ (3)
Deferred income tax benefit (expense)	**208**	(86)
Total recognized in other comprehensive income	**210**	(89)
Recognized in equity, other than other comprehensive income:		
Deferred income tax benefit (expense)	**—**	—
Total income tax benefit (expense) recorded in equity, including tax benefit (expense) recorded in Other comprehensive income	**$ 210**	$ (89)

20.B.iii Our effective income tax rate differs from the combined Canadian federal and provincial statutory income tax rate as follows:

For the years ended December 31,	2022		2021	
		%		%
Total net income (loss)	**$ 2,106**		$ 3,314	
Add: Income tax expense (benefit)	**313**		326	
Total net income (loss) before income taxes	**$ 2,419**		$ 3,640	
Taxes at the combined Canadian federal and provincial statutory income tax rate	**$ 671**	**27.8**	$ 956	26.3
Increase (decrease) in rate resulting from:				
Tax-exempt investment (income) loss	**(100)**	**(4.1)**	(301)	(8.3)
Higher (lower) effective rates on income subject to taxation in foreign jurisdictions	**(227)**	**(9.4)**	(255)	(7.0)
Adjustments in respect of prior years, including resolution of tax disputes	**(13)**	**(0.5)**	(40)	(1.1)
Tax (benefit) cost of unrecognized tax losses and tax credits	**16**	**0.6**	4	0.1
Tax rate and other legislative changes	**(92)**	**(3.8)**	(9)	(0.2)
Other	**58**	**2.3**	(29)	(0.8)
Total tax expense (benefit) and effective income tax rate	**$ 313**	**12.9**	$ 326	9.0

In the 2022 Canadian Federal Budget, an additional surtax of 1.5% applicable to banks and life insurers' taxable income in excess of $100 million was introduced ("Canada Tax Rate Change"). This legislation became enacted on December 15, 2022, and applies retroactively to April 7, 2022. As a result, our statutory tax rate has increased from 26.25% to 27.75% (rounded to 26.3% and 27.8%, respectively, in the table above).

Tax-exempt investment (income) loss includes tax rate differences related to various types of investment income or losses that are taxed at rates lower than our statutory income tax rate. Examples include, but are not limited to, dividend income, capital gains arising in Canada and changes in market values including those resulting from fluctuations in foreign exchange rates.

Statutory income tax rates in other jurisdictions in which we conduct business range from 0% to 25%, which creates a tax rate differential and corresponding tax provision difference compared to the Canadian federal and provincial statutory rate when applied to foreign income not subject to tax in Canada. Generally, earnings arising in tax jurisdictions with statutory rates lower than 27.75% reduce our tax expense. These differences are reported in Higher (lower) effective rates on income subject to taxation in foreign jurisdictions. The benefit reported in 2022 included lower income in jurisdictions with low statutory income tax rates compared to 2021.

Adjustments in respect of prior periods, including the resolution of tax disputes, relate mainly to the resolution of Canadian tax matters and the finalization of the prior year's Canadian and U.S. tax filings.

Tax (benefit) cost of unrecognized tax losses and tax credits reflects unrecognized losses in Asia and the UK. In 2021, it reflected unrecognized losses in Asia.

Tax rate and other legislative changes includes a benefit relating to the remeasurement of our deferred tax balances of $86 as a result of the Canada Tax Rate Change. In 2021, tax rate and other legislative changes included a remeasurement of our deferred tax balances in the UK due to an enacted corporate tax rate increase from 19% to 25%, which takes effect April 1, 2023.

Other primarily reflects the tax impact of the non-deductible goodwill impairment charge relating to the sale of Sun Life UK. Also included in Other are withholding taxes on distributions from our foreign subsidiaries and the benefit relating to investments in joint ventures in Asia. In 2021, Other included mostly tax differences related to investments in joint ventures in Asia.

21. Capital Management

Our capital base is structured to exceed minimum regulatory and internal capital targets and maintain strong credit and financial strength ratings while maintaining a capital efficient structure. We strive to achieve an optimal capital structure by balancing the use of debt and equity financing. Capital is managed both on a consolidated basis under principles that consider all the risks associated with the business as well as at the business group level under the principles appropriate to the jurisdiction in which each operates. We manage the capital for all of our international subsidiaries on a local statutory basis in a manner commensurate with their individual risk profiles.

The Board of Directors of Sun Life Assurance is responsible for the annual review and approval of the Company's capital plan and capital risk policy. Management oversight of our capital programs and position is provided by the Company's Executive Risk Committee, the membership of which includes senior management from the finance, actuarial, and risk management functions.

We engage in a capital planning process annually in which capital deployment options, fundraising, and dividend recommendations are presented to the Risk Committee of the Board of Directors. Capital reviews are regularly conducted which consider the potential impacts under various business, interest rate, and equity market scenarios. Relevant components of these capital reviews, including dividend recommendations, are presented to the Risk Committee on a quarterly basis. The Board of Directors is responsible for the approval of the dividend recommendations.

The capital risk policy is designed to ensure that adequate capital is maintained to provide the flexibility necessary to take advantage of growth opportunities, to support the risks associated with our businesses and to optimize return to our shareholder.

This policy is also intended to provide an appropriate level of risk management over capital adequacy risk, which is defined as the risk that capital is not or will not be sufficient to withstand adverse economic conditions, to maintain financial strength or to allow us and our subsidiaries to support ongoing operations and to take advantage of opportunities for expansion.

Sun Life Assurance is an operating insurance company and is subject to the LICAT guideline. With a LICAT Ratio of 127% as at December 31, 2022, Sun Life Assurance's LICAT Ratio is above OSFI's Supervisory Target Total Ratio of 100% and minimum Total Ratio of 90%. The Company has established capital targets in excess of the Supervisory Target Total Ratio.

OSFI may intervene and assume control of a Canadian life insurance company if it deems the amount of available capital insufficient. Capital requirements may be adjusted by OSFI in the future, as experience develops or the risk profile of Canadian life insurers changes or to reflect other risks. Sun Life Assurance exceeded levels that would require regulatory or corrective action as at December 31, 2022 and December 31, 2021.

The Company's regulated subsidiaries must comply with the capital adequacy requirements imposed in the jurisdictions in which they operate. In certain jurisdictions, the payment of dividends from our subsidiaries is subject to maintaining capital levels exceeding regulatory targets and/or receiving regulatory approval. We maintained capital levels above minimum local requirements as at December 31, 2022 and December 31, 2021.

In the U.S., Sun Life Assurance operates through a branch which is subject to U.S. regulatory supervision and it exceeded the levels under which regulatory action would be required as at December 31, 2022 and December 31, 2021.

Our capital base consists mainly of common shareholder's equity, preferred shareholder's equity, participating policyholders' equity, non-controlling interests' equity and certain other capital securities that qualify as regulatory capital. For regulatory reporting purposes under the LICAT framework, there were further adjustments, including goodwill, non-life investments, and others as was prescribed by OSFI, to the total capital figure presented in the table below:

As at December 31,	2022	2021
Preferred shares[1]	**$ 2,750**	$ 2,750
Subordinated debt	**150**	150
Innovative capital instruments[2]	**200**	200
Equity:		
Preferred shareholder's equity	**701**	701
Common shareholder's equity	**20,474**	18,872
Participating policyholders' equity	**1,837**	1,700
Non-controlling interests' equity	**2,659**	2,478
Total capital	**$ 28,771**	$ 26,851

(1) Preferred shares that qualify as capital for Canadian regulatory purposes are described in Note 15.B.
(2) Innovative capital instruments are SLEECS issued by SLCT I (Note 13). SLCT I is not consolidated by us.

22. Segregated Funds

We have segregated fund products, including variable annuities, unit-linked products and universal life insurance policies, in Canada, the U.S., the UK, and Asia. Under these contracts, the benefit amount is contractually linked to the fair value of the investments in the particular segregated fund. Policyholders can select from a variety of categories of segregated fund investments. Although the underlying assets are registered in our name and the segregated fund contract holder has no direct access to the specific assets, the contractual arrangements are such that the segregated fund policyholder bears the risk and rewards of the funds' investment performance. Therefore, net realized gains and losses, other net investment income earned, and expenses incurred on the segregated funds are attributable to policyholders and not to us. However, certain contracts include guarantees from us. We are exposed to equity market risk and interest rate risk as a result of these guarantees. Further details on these guarantees and our risk management activities related to these guarantees are included in Note 6.

We derive fee income from segregated funds. Market value movements in the investments held for segregated fund holders impact the management fees earned on these funds.

The segregated fund types offered, by percentage of total investments for account of segregated fund holders, were within the following ranges as at December 31, 2022 and 2021:

Type of fund	%
Money market	1 to 5
Fixed income	5 to 10
Balanced	40 to 45
Equity	45 to 50

Money market funds include investments that have a term to maturity of less than one year. Fixed income funds are funds that invest primarily in investment grade fixed income securities and where less than 25% can be invested in diversified equities or high-yield bonds. Balanced funds are a combination of fixed income securities with a larger equity component. The fixed income component is greater than 25% of the portfolio. Equity consists primarily of broad-based diversified funds that invest in a well-diversified mix of Canadian, U.S. or global equities. Other funds in this category include low volatility funds, intermediate volatility funds, and high volatility funds.

22.A Investments for Account of Segregated Fund Holders

The carrying value of investments held for segregated fund holders are as follows:

As at December 31,	2022	2021
Segregated and mutual fund units	**$ 113,020**	$ 125,877
Equity securities	**8,251**	9,963
Debt securities	**2,858**	3,410
Cash, cash equivalents and short-term securities	**805**	778
Investment properties	**438**	446
Mortgages	**17**	19
Other assets	**130**	141
Total assets	**$ 125,519**	$ 140,634
Less: Liabilities arising from investing activities	**277**	705
Total investments for account of segregated fund holders	**$ 125,242**	$ 139,929

22.B Changes in Insurance Contracts and Investment Contracts for Account of Segregated Fund Holders

For the years ended December 31,	2022	2021
Balance as at January 1	**$ 139,929**	$ 125,859
Additions to segregated funds:		
Deposits	**14,266**	13,509
Net transfer (to) from general funds	**(1,149)**	(351)
Net realized and unrealized gains (losses)	**(18,652)**	9,505
Other investment income	**4,959**	6,558
Total additions	**$ (576)**	$ 29,221
Deductions from segregated funds:		
Payments to policyholders and their beneficiaries	**12,215**	12,962
Management fees	**1,188**	1,276
Taxes and other expenses	**391**	434
Foreign exchange rate movements	**317**	479
Total deductions	**$ 14,111**	$ 15,151
Net additions (deductions)	**(14,687)**	14,070
Balance as at December 31	**$ 125,242**	$ 139,929

23. Commitments, Guarantees and Contingencies

23.A Lease Commitments

We lease offices and certain equipment. These are operating leases with rents charged to operations in the year to which they relate. Total future rental payments for the remainder of these leases total $719 (December 31, 2021—$660). The future rental payments by year of payment are included in Note 6.

23.B Contractual Commitments

In the normal course of business, various contractual commitments are outstanding, which are not reflected in our Consolidated Financial Statements. In addition to loan commitments for debt securities and mortgages included in Note 6.A.i, we have equity, investment property, and property and equipment commitments. As at December 31, 2022, we had a total of $4,686 of contractual commitments outstanding (December 31, 2021—$4,069). The expected maturities of these commitments are included in Note 6.

23.C Letters of Credit

We issue commercial letters of credit in the normal course of business. As at December 31, 2022, we had credit facilities of $209 available for the issuance of letters of credit (December 31, 2021—$207), from which a total of $93 in letters of credit were outstanding (December 31, 2021—$90). We also have access to credit facilities totaling US$500 where SLF Inc. is the principal borrower, from which a total of $1 in letters of credit were outstanding as at December 31, 2022 (December 31, 2021—$2).

23.D Commission on Release

Commissions on Release ("CORe") is a program designed to facilitate the transfer of blocks of business between advisors in order to provide ongoing service and advice to our Clients. We facilitate and administer these transactions including payment and collection streams. Under the CORe program, when an eligible advisor releases Clients they are servicing, we are contractually obligated to pay them the associated CORe value, based on a specified formula as stipulated in the advisor contract. The value of the CORe commitment will vary for blocks of business which have not been released by an active advisor. The occurrence of future events that will trigger an advisor to release their block of business and the value of the related CORe commitment at that future release date is difficult to predict. As a result of uncertainty in the timing of the triggering event, we cannot reliably estimate our commitment under the CORe program. Due to the nature of the program, in the normal course of business, the commitment related to the future payment to advisors on release of a block of business would be expected to be matched or partially matched by a corresponding amount related to the receivable on the assignment of blocks of business to new advisors, resulting in an immaterial impact to earnings and liquidity in any reporting period.

23.E Indemnities and Guarantees

In the normal course of our business, we have entered into agreements that include indemnities in favour of third parties, such as confidentiality agreements, engagement letters with advisors and consultants, outsourcing agreements, leasing contracts, trade-mark licensing agreements, underwriting and agency agreements, information technology agreements, distribution agreements, financing agreements, the sale of equity interests, and service agreements. These agreements may require us to compensate the counterparties for damages, losses or costs incurred by the counterparties as a result of breaches in representation, changes in regulations (including tax matters), or as a result of litigation claims or statutory sanctions that may be suffered by the counterparty as a consequence of the transaction. We have also agreed to indemnify our directors and certain of our officers and employees in accordance with our by-laws. These indemnification provisions will vary based upon the nature and terms of the agreements. In many cases, these indemnification provisions do not contain limits on our liability, and the occurrence of contingent events that will trigger payment under these indemnities is difficult to predict. As a result, we cannot estimate our potential liability under these indemnities. We believe that the likelihood of conditions arising that would trigger these indemnities is remote and, historically, we have not made any significant payment under such indemnification provisions. In certain cases, we have recourse against third parties with respect to the aforesaid indemnities, and we also maintain insurance policies that may provide coverage against certain of these claims.

In the normal course of our business, we have entered into purchase and sale agreements that include indemnities in favour of third parties. These agreements may require us to compensate the counterparties for damages, losses, or costs incurred by the counterparties as a result of breaches in representation. As at December 31, 2022, we are not aware of any breaches in representations that would result in any payment required under these indemnities that would have a material impact on our Consolidated Financial Statements.

Guarantees made by us that can be quantified are included in Note 6.A.i.

23.F Legal and Regulatory Proceedings

We are regularly involved in legal actions, both as a defendant and as a plaintiff. Legal actions naming us as a defendant ordinarily involve our activities as a provider of insurance protection and wealth management products, as an investor and investment advisor, and as an employer. In addition, government and regulatory bodies in Canada, the U.S., the UK, and Asia, including federal, provincial, and state securities and insurance regulators and government authorities, from time to time, make inquiries and require the production of information or conduct examinations or investigations concerning our compliance with insurance, securities, and other laws.

Provisions for legal proceedings related to insurance contracts, such as for disability and life insurance claims and the cost of litigation, are included in Insurance contract liabilities in our Consolidated Statements of Financial Position. Other provisions are established outside of the Insurance contract liabilities if, in the opinion of management, it is both probable that a payment will be required and a reliable estimate can be made of the amount of the obligation. Management reviews the status of all proceedings on an ongoing basis and exercises judgment in resolving them in such manner as management believes to be in our best interest.

Two class action lawsuits have been filed against Sun Life Assurance in connection with sales practices relating to, and the administration of, individual policies issued by the Metropolitan Life Insurance Company ("MLIC"). These policies were assumed by Clarica when Clarica acquired the bulk of MLIC's Canadian operations in 1998 and subsequently assumed by Sun Life Assurance as a result of its amalgamation with Clarica. One of the lawsuits (*Fehr et al v Sun Life Assurance Company of Canada*) is issued in Ontario and the other (*Alamwala v Sun Life Assurance Company of Canada*) is in British Columbia. The *Fehr* action has been certified as a class action and notice has been made to class members. Sun Life Assurance has brought a motion for summary judgment seeking to dismiss all of the claims. The other action (*Alamwala v Sun Life Assurance Company of Canada*) has remained largely dormant since it was commenced in 2011 and has not been certified. We will continue to vigorously defend against the claims in these actions. In connection with the acquisition of the Canadian operations of MLIC, MLIC agreed to indemnify Clarica for certain losses, including those incurred relating to the sales of its policies. Should either of the *Fehr* or the *Alamwala* lawsuits result in a loss, Sun Life Assurance will seek recourse against MLIC under that indemnity through arbitration.

Management does not believe that the probable conclusion of any current legal or regulatory matter, either individually or in the aggregate, will have a material adverse effect on the Consolidated Statements of Financial Position or the Consolidated Statements of Operations.

24. Related Party Transactions

Our related parties include SLF Inc. and its other subsidiaries, our joint ventures and associates, and our key management personnel.

24.A Transactions with Key Management Personnel, Remuneration and Other Compensation

Key management personnel refers to the executive team and Board of Directors of Sun Life Assurance. These individuals have the authority and responsibility for planning, directing, and controlling the activities of the Company. The aggregate compensation to the executive team and directors are as follows:

For the years ended December 31,	**2022**		2021	
	Executive team	**Directors**	Executive team	Directors
Number of individuals	**13**	**11**	14	13
Base salary and annual incentive compensation	**$ 19**	**$ —**	$ 22	$ —
Additional short-term benefits and other	**$ 1**	**$ —**	$ 1	$ 1
Share-based long-term incentive compensation	**$ 32**	**$ 3**	$ 36	$ 2
Value of pension and post-retirement benefits	**$ 2**	**$ —**	$ 6	$ —
Severance	**$ —**	**$ —**	$ 6	$ —

24.B Transactions with SLF Inc. and its Subsidiaries

Sun Life Assurance and its subsidiaries transact business worldwide. Sun Life Assurance and its subsidiaries are primarily involved in the businesses described in Note 1 and the other subsidiaries of SLF Inc. are primarily involved in asset management and provide services to us as described in Note 24.B.ii and Note 24.B.iii. All the companies discussed in this Note are subsidiaries of SLF Inc. unless otherwise stated. All transactions between Sun Life Assurance and its subsidiaries have been eliminated on consolidation and are not discussed in this Note.

Transactions with joint ventures and associates, which are also related parties, are disclosed in Note 16. Transactions between the Company and related parties are accounted for in accordance with the Related Party Transactions policy in Note 1.

24.B.i Loan Agreements

Loans to related parties on our Consolidated Statements of Financial Position consist of the following:

As at December 31,	Currency of borrowing	Maturity date	Interest rate	**2022**	2021
Loans to related parties:					
Promissory note	U.S. dollars	2040	4.48%	**$ 678**	$ 632
Promissory note	Cdn. dollars	Demand note	Non-interest bearing	**320**	320
Total loans to related parties				**$ 998**	$ 952

Total interest on loans to related parties was $29 for the year ended December 31, 2022 (2021—$28).

24.B.ii Reinsurance Agreements

We have reinsurance agreements under which we have ceded business to related parties in the U.S. and Bermuda.

We have a coinsurance with funds withheld reinsurance agreement under which we ceded certain of our universal life policies to Sun Life Financial (U.S.) Reinsurance Company ("SLFRC"), a subsidiary of SLF Inc. Under this agreement, we hold and manage assets on a funds withheld basis in a segregated asset portfolio for the benefit of SLFRC.

We also have a coinsurance with funds withheld reinsurance agreement under which we ceded certain of our universal life policies to Independence Life and Annuity Company ("Indy"), a subsidiary of SLF Inc. Under this agreement, we hold and manage assets on a funds withheld basis in a segregated asset portfolio for the benefit of Indy.

We have a coinsurance funds withheld treaty with Sun Life Financial (Bermuda) Reinsurance Ltd. ("SLF Bermuda"), a subsidiary of SLF Inc. Under the terms of the agreement, the Company cedes 100% of the risks associated with certain portions of our medical stop-loss business in the United States Branch of Sun Life Assurance of Canada to SLF Bermuda. Under this agreement, we hold and manage assets on a funds withheld basis in a segregated asset portfolio for the benefit of SLF Bermuda.

We have 100% coinsurance agreement with SLF Bermuda. Under the terms of the agreement, Sun Life and Health Insurance Company (U.S.) ("SLHIC"), a wholly-owned subsidiary, cedes 100% of the risks associated with certain portions of its medical stop-loss business to SLF Bermuda. SLF Bermuda holds the assets backing the assumed reserves in Trust with SLHIC as the beneficiary.

Financial Impact of Reinsurance Agreements

The amounts included in the Consolidated Statements of Financial Position related to these reinsurance transactions consist of the following:

As at December 31,	**2022**	2021
Funds withheld assets included in Other assets	**$ 63**	$ 4
Reinsurance assets	**$ 8,525**	$ 10,283
Funds withheld liabilities included in Other liabilities	**$ 9,529**	$ 9,347
Derivative liabilities	**$ (1,073)**	$ 967

The amounts included in our Consolidated Statements of Operations related to these reinsurance transactions consist of the following:

For the years ended December 31,	2022	2021
Ceded premiums	**$ 3,094**	$ 2,527
Decrease (increase) in reinsurance assets	**$ 2,481**	$ 495
Reinsurance expenses (recoveries)	**$ (5,481)**	$ (2,707)

24.B.iii Other Agreements and Guarantees

We have service agreements with various related parties under which we provide administrative and other services. Under these agreements, we are reimbursed for costs we incur from providing these services. Amounts received under these agreements for the year ended December 31, 2022 were $324 (2021—$245).

We have an administrative services agreement with Sun Life Financial (U.S.) Service Company, Inc. ("SLFSC") under which we receive general administrative services from SLFSC. Expenses recorded under this agreement for the year ended December 31, 2022 were $716 (2021—$666) and are included in Operating expenses in our Consolidated Statements of Operations.

Disability Reinsurance Management Services, Inc. ("DRMS"), which is a subsidiary of SLF Inc., is a related party to us. We have a reinsurance management services agreement with DRMS under which we receive general reinsurance management services from DRMS. Expenses recorded under this agreement for the year ended December 31, 2022 were $69 (2021—$60) and were included in Commissions in our Consolidated Statements of Operations.

We have service and advisory agreements with various related parties, under which they provide investment advisory services to us and manage certain of our investment portfolios. During 2022, we paid fees of $363 (2021—$337) under all of these investment advisory and service agreements.

We have distribution agreements with various related parties, under which we receive fees for the sale of their products. In 2022, we received fees of $48 (2021—$49) from the sale of these products that are included in Fee income in our Consolidated Statements of Operations.

We have additional service agreements with related parties that did not have a material impact on the net income reported for the years ended December 31, 2022 and 2021.

24.B.iv Other Transactions

In the fourth quarter of 2022, we purchased the outstanding shares of a subsidiary of SLF Inc. for $91. The net assets of this subsidiary, which consisted of deferred tax assets, were recorded at their carrying value of $106. The difference between the amount paid and the carrying value of the net asset acquired of $15 was recorded to Retained Earnings in our Consolidated Statements of Changes in Equity.

During 2022, SLF Inc. contributed capital of $673 (2021—$23) to us. These amounts are reported as Contributed surplus in our Consolidated Statements of Changes in Equity.

On July 1, 2020, we implemented an alternative financing structure for the U.S. business, which created an asset of approximately $2,444 at December 31, 2020, reflected in Other Invested Assets on our Consolidated Statement of Financial Position. In the fourth quarter of 2022, we received $163 in dividends on preferred shares from a subsidiary of SLF Inc. as a result of this financing structure (2021—$114). As part of this transaction, we also paid $163 in dividends (2021—$152).

24.C Other Related Party Transactions

We provide investment management services for our pension plans. The services are provided on substantially the same terms as for comparable transactions with third parties. We also hold units of investment funds managed by certain of our joint ventures and other related parties. The carrying amount of our investment in these funds is included in Note 16.D.

25. Pension Plans and Other Post-Retirement Benefits

We sponsor defined benefit pension plans and defined contribution plans for eligible employees. All of our material defined benefit plans worldwide are closed to new entrants with new hires participating in defined contribution plans. Material defined benefit plans are located in Canada and the UK. The defined benefit pension plans offer benefits based on length of service and final average earnings and certain plans offer some indexation of benefits. The specific features of these plans vary in accordance with the employee group and countries in which employees are located. In addition, we maintain supplementary non-contributory defined benefit pension arrangements for eligible employees, which are primarily for benefits which are in excess of local tax limits. As at December 31, 2014, there are no active members in the UK defined benefit plans continuing to accrue future service benefits. On January 1, 2009, the Canadian defined benefit plans were closed to new employees. Canadian employees hired before January 1, 2009 continue to earn future service benefits in the previous plans, which includes both defined benefit and defined contribution components, while new hires since then are eligible to join a defined contribution plan. In addition, one small defined benefit plan in the Philippines remains open to new hires.

Our funding policy for defined benefit pension plans is to make at least the minimum annual contributions required by regulations in the countries in which the plans are offered. Our UK defined benefit pension scheme is governed by pension trustees. In other countries in which we operate, the defined benefit pension arrangements are governed by local pension committees. Significant plan changes require the approval of the Board of Directors of Sun Life Assurance.

We also established defined contribution plans for eligible employees. Our contributions to these defined contribution pension plans may be subject to certain vesting requirements. Generally, our contributions are a set percentage of employees' annual income and may be a set percentage of employee contributions, up to specified levels.

In addition to our pension plans, we provide certain post-retirement health care and life insurance benefits to eligible employees and to their dependents upon meeting certain requirements. Eligible retirees may be required to pay a portion of the premiums for these benefits and, in general, deductible amounts and co-insurance percentages apply to benefit payments. These post-retirement benefits are not pre-funded. In Canada, certain post-retirement health care and life insurance benefits are provided for eligible employees who retired before December 31, 2015. Eligible employees who retire after December 31, 2015 will have access to voluntary retiree-paid health care coverage.

25.A Risks Associated with Employee Defined Benefit Plans

With the closure of the material defined benefit pension and retiree benefit plans to new entrants, the volatility associated with future service accruals for active members has been limited and will decline over time.

The major risks remaining in relation to past service obligations are increases in liabilities due to a decline in discount rates, greater life expectancy than assumed and adverse asset returns. We have significantly de-risked the investments of our material defined benefit pension plans Company-wide by shifting the pension asset mix away from equities and into more fixed income and liability-matching investments. In 2018 and 2021, the risk in our UK pension plan was reduced through buy-in insurance contracts protecting the majority of pensioner benefits. The target for our material funded defined benefit plans is to minimize volatility in funded status arising from changes in discount rates and exposure to equity markets.

25.B Defined Benefit Pension and Other Post-Retirement Benefit Plans

The following tables set forth the status of the defined benefit pension and other post-retirement benefit plans:

	2022			2021		
	Pension	**Other post-retirement**	**Total**	Pension	Other post-retirement	Total
Change in defined benefit obligations:						
Defined benefit obligation, January 1	**$ 3,347**	**$ 179**	**$ 3,526**	$ 3,529	$ 198	$ 3,727
Current service cost	**49**	**5**	**54**	57	5	62
Interest cost	**92**	**5**	**97**	84	5	89
Actuarial losses (gains)	**(911)**	**(34)**	**(945)**	(145)	(16)	(161)
Benefits paid	**(164)**	**(13)**	**(177)**	(162)	(13)	(175)
Foreign exchange rate movement	**(37)**	**—**	**(37)**	(16)	—	(16)
Defined benefit obligation, December 31	**$ 2,376**	**$ 142**	**$ 2,518**	$ 3,347	$ 179	$ 3,526
Change in plan assets:						
Fair value of plan assets, January 1	**$ 3,191**	**$ —**	**$ 3,191**	$ 3,429	$ —	$ 3,429
Interest income on plan assets	**88**	**—**	**88**	79	—	79
Return on plan assets over (under) interest	**(714)**	**—**	**(714)**	(224)	—	(224)
Employer contributions	**82**	**13**	**95**	91	13	104
Benefits paid	**(164)**	**(13)**	**(177)**	(162)	(13)	(175)
Foreign exchange rate movement	**(40)**	**—**	**(40)**	(22)	—	(22)
Fair value of plan assets, December 31	**$ 2,443**	**$ —**	**$ 2,443**	$ 3,191	$ —	$ 3,191
Amounts recognized on Statement of Financial Position:						
Fair value of plan assets	**$ 2,443**	**$ —**	**$ 2,443**	$ 3,191	$ —	$ 3,191
Defined benefit (obligation)	**(2,376)**	**(142)**	**(2,518)**	(3,347)	(179)	(3,526)
Net recognized (liability) asset, December 31	**$ 67**	**$ (142)**	**$ (75)**	$ (156)	$ (179)	$ (335)
Components of net benefit expense recognized:						
Current service cost	**$ 49**	**$ 5**	**$ 54**	$ 57	$ 5	$ 62
Net interest expense (income)	**4**	**5**	**9**	5	5	10
Other long-term employee benefit losses (gains)	**—**	**(5)**	**(5)**	—	(3)	(3)
Net benefit expense	**$ 53**	**$ 5**	**$ 58**	$ 62	$ 7	$ 69
Remeasurement of net recognized (liability) asset:						
Return on plan assets (excluding amounts included in net interest expense)	**$ (714)**	**$ —**	**$ (714)**	$ (224)	$ —	$ (224)
Actuarial gains (losses) arising from changes in demographic assumptions	**18**	**—**	**18**	2	—	2
Actuarial gains (losses) arising from changes in financial assumptions	**910**	**26**	**936**	164	10	174
Actuarial gains (losses) arising from experience adjustments	**(17)**	**3**	**(14)**	(21)	3	(18)
Foreign exchange rate movement	**(2)**	**—**	**(2)**	(2)	—	(2)
Components of defined benefit costs recognized in Other comprehensive income (loss)	**$ 195**	**$ 29**	**$ 224**	$ (81)	$ 13	$ (68)

25.C Principal Assumptions for Significant Plans

	2022		2021	
	Canada %	**UK %**	Canada %	UK %
To determine defined benefit obligation at end of year:				
Discount rate for pension plans	**5.00**	**4.75**	3.00	1.90
Rate of compensation increase	**2.75**	**n/a**	2.80	n/a
Pension increases	**0.00-0.05**	**3.05**	0.00-0.05	3.30
To determine net benefit expense for year:				
Discount rate for pension plans	**3.00**	**1.90**	2.70	1.30
Rate of compensation increase	**2.80**	**n/a**	2.80	n/a
Pension increases	**0.00-0.05**	**3.30**	0.00-0.05	2.95
Health care trend rates:				
Initial health care trend rate	**5.16**	**n/a**	5.10	n/a
Ultimate health care trend rate	**4.00**	**n/a**	4.00	n/a
Year ultimate health care trend rate reached	**2040**	**n/a**	2040	n/a

	2022		2021	
	Canada	**UK**	Canada	UK
Mortality rates:				
Life expectancy (in years) for individuals currently at age 65:				
Male	**23**	**23**	23	23
Female	**25**	**25**	25	25
Life expectancy (in years) at 65 for individuals currently at age 45:				
Male	**24**	**25**	24	24
Female	**26**	**27**	26	27
Average duration (in years) of pension obligation	**13.2**	**12.9**	16.9	17.4

Discount Rate, Rate of Compensation Increase and Health Care Cost

The major economic assumptions which are used in determining the actuarial present value of the accrued benefit obligations vary by country.

The discount rate assumption used for material plans is determined by reference to the market yields, as of December 31, of high-quality corporate bonds that have terms to maturity approximating the terms of the related obligation. In countries where a deep corporate market does not exist, government bonds are used. Compensation and health care trend assumptions are based on expected long-term trend assumptions which may differ from actual results.

25.D Sensitivity of Key Assumptions

The following table provides the potential impact of changes in key assumptions on the defined benefit obligation for pension and other post-retirement benefit plans as at December 31, 2022. These sensitivities are hypothetical and should be used with caution. The impact of changes in each key assumption may result in greater than proportional changes in sensitivities.

	Pension	Post-retirement benefits
Interest/discount rate sensitivity:[1]	**$ 351**	**$ 14**
1% decrease		
1% increase	**$ (275)**	**$ (12)**
Rate of compensation increase assumption:		
1% decrease	**$ (39)**	**n/a**
1% increase	**$ 44**	**n/a**
Health care trend rate assumption:		
1% decrease	**n/a**	**$ (8)**
1% increase	**n/a**	**$ 9**
Mortality rates:[2]		
10% decrease	**$ 54**	**$ 2**

(1) Represents a parallel shift in interest rates across the entire yield curve, resulting in a change in the discount rate assumption.

(2) Represents 10% decrease in mortality rates at each age.

25.E Fair Value of Plan Assets

Composition of fair value of plan assets, December 31:

	2022	2021
Equity investments	**3%**	3%
Fixed income investments	**62%**	61%
Real estate investments	**12%**	10%
Qualifying insurance contract	**18%**	22%
Other	**5%**	4%
Total composition of fair value of plan assets	**100%**	100%

The fair value of our equity investments in 2022 and 2021 are consistent with Level 1 or Level 2 fair value hierarchy.

The assets of the defined benefit pension plans are primarily held in trust for plan members, and are managed within the provisions of each plan's investment policies and procedures. Diversification of the investments is used to limit credit, market, and foreign currency risks. We have significantly de-risked the investments of our material defined benefit pension plans by shifting the pension asset mix away from equities and into more fixed income and liability-matching investments. In 2021, the risk in our UK pension plan was reduced through buy-in insurance contracts, protecting the majority of pensioner benefits. The long-term investment objectives of the defined benefit pension plans are to equal or exceed the rate of growth of the liabilities. Over shorter periods, the objective of the defined benefit pension plan investment strategy is to minimize volatility in the funded status. Liquidity is managed with consideration to the cash flow requirements of the liabilities.

25.F Future Cash Flows

The following tables set forth the expected contributions and expected future benefit payments of the defined benefit pension and other post-retirement benefit plans:

	Pension	Post-Retirement	Total
Expected contributions for the next 12 months	$ 66	$ 13	$ 79

Expected Future Benefit Payments

	2023	2024	2025	2026	2027	2028 to 2032
Pension	$ 129	$ 131	$ 138	$ 142	$ 146	$ 768
Post-retirement	13	13	13	13	14	72
Total	$ 142	$ 144	$ 151	$ 155	$ 160	$ 840

25.G Defined Contribution Plans

We expensed $68 in 2022 (2021—$64) with respect to defined contribution plans.

26. Accumulated Other Comprehensive Income (Loss) and Non-Controlling Interests

26.A. Accumulated Other Comprehensive Income (Loss)

Changes in accumulated other comprehensive income (loss), net of taxes, are as follows:

	2022			2021		
For the years ended December 31,	**Balance, beginning of period**	**Other comprehensive income (loss)**	**Balance, end of period**	Balance, beginning of period	Other comprehensive income (loss)	Balance, end of period
Items that may be reclassified subsequently to income:						
Unrealized foreign currency translation gains (losses), net of hedging activities	**$ 754**	**$ 785**	**$1,539**	$ 953	$ (199)	$ 754
Unrealized gains (losses) on available-for-sale assets	**235**	**(1,084)**	**(849)**	588	(353)	235
Unrealized gains (losses) on cash flow hedges	**(10)**	**(22)**	**(32)**	(16)	6	(10)
Share of other comprehensive income (loss) in joint ventures and associates	**(47)**	**(109)**	**(156)**	(42)	(5)	(47)
Items that will not be reclassified subsequently to income:						
Remeasurement of defined benefit plans	**(278)**	**153**	**(125)**	(223)	(55)	(278)
Revaluation surplus on transfers to investment properties	**150**	**(2)**	**148**	150	—	150
Total	**$ 804**	**$ (279)**	**$ 525**	$ 1,410	$ (606)	$ 804
Total attributable to:						
Participating policyholders	**$ 2**	**$ 21**	**$ 23**	$ 5	$ (3)	$ 2
Non-controlling interests	**(8)**	**179**	**171**	12	(20)	(8)
Shareholder	**810**	**(479)**	**331**	1,393	(583)	810
Total	**$ 804**	**$ (279)**	**$ 525**	$ 1,410	$ (606)	$ 804

26.B. Non-Controlling Interests

Non-controlling interests for 2022 and 2021 in our Consolidated Statements of Financial Position, Consolidated Statements of Changes in Equity, and Net income (loss) attributable to non-controlling interests include SLF Inc.'s interest in an entity that is consolidated by us. SLF Inc. holds all of the voting rights and power related to this entity. We have consolidated this entity since we are exposed to a significant amount of the variability associated with this entity and have power over the relevant activities of this entity through a related party.

On July 1, 2020, we implemented an alternative financing structure for the U.S. business with a related party, representing preferred shares ownership of a subsidiary of Sun Life Assurance held by a subsidiary of SLF Inc. We paid dividends of $163 and $152 in 2022 and 2021, respectively, to a subsidiary of SLF Inc., which is a related party to us.

27. Subsequent Events

On January 20, 2023, we entered into a 15-year exclusive bancassurance partnership with Dah Sing Bank, Limited effective July 1, 2023. The partnership significantly expands our distribution in Asia. An initial payment of approximately $260 will be made on July 1, 2023, based on the contractual terms of the agreement.

Effective February 1, 2023, we completed the sale of our sponsored markets business to Canadian Premier. Our sponsored markets business includes a variety of association & affinity, and group creditor clients.

Sources of earnings

The following is provided in accordance with the OSFI guideline requiring Sources of Earnings (SOE) disclosure. SOE is a non-International Financial Reporting Standard (IFRS) financial measure. There is no standard SOE methodology. The calculation of SOE is dependent on, and sensitive to, the methodology, estimates, and assumptions used.

SOE identifies various sources of IFRS net income. It provides an analysis of the difference between actual net income and expected net income based on business in-force and assumptions made at the beginning of the reporting period. The terminology used in the discussion of sources of earnings is described below:

Expected profit on in-force business

The portion of the consolidated pre-tax net income on business in-force at the start of the reporting period that was expected to be realized based on the achievement of the best estimate assumptions made at the beginning of the reporting period. Expected profit for asset management companies is set equal to their pre-tax net income.

Impact of new business

The point-of-sale impact on pre-tax net income of writing new business during the reporting period. Issuing new business may produce a gain or loss at the point of sale, primarily because valuation assumptions are different than pricing assumptions and/or actual acquisition expenses may differ from those assumed in pricing.

Experience gains and losses

Pre-tax gains and losses that are due to differences between the actual experience during the reporting period and the best estimate assumptions at the start of the reporting period.

Assumption changes and management actions

Impact on pre-tax net income resulting from changes in actuarial methods and assumptions or other management actions.

Other

Impact on pre-tax net income not addressed under the previous categories. Examples include acquisition, integration, restructuring, and other related costs.

Earnings on Surplus

Pre-tax net income earned on a company’s surplus funds. Earnings on Surplus is comprised of realized gains on available-for-sale assets, as well as net investment returns on surplus, such as investment income, gains (losses) on seed investments, investment properties mark-to-market, and interest on debt.

Sources of earnings

For the Year Ended December 31, 2022 (in millions of Canadian dollars)	Sun Life Canada	Sun Life U.S.	Sun Life Asia	Corporate	Total
Expected Profit on In-force Business	1,234	396	579	(218)	1,991
Impact of New Business	130	-	(50)	-	80
Experience Gains and Losses	2	49	(120)	(77)	(146)
Assumption Changes and Management Actions	97	(12)	(41)	44	88
Other	(3)	53	10	(187)	(127)
Earnings on Operations (pre-tax)	1,460	486	378	(438)	1,886
Earnings on Surplus	40	75	156	262	533
Earnings before Income Taxes	1,500	561	534	(176)	2,419
Income Taxes	(354)	(113)	(63)	217	(313)
Earnings before Non-controlling Interests, Participating Policyholders' Net Income and Preferred Share Dividends	1,146	448	471	41	2,106
Less:					
Non-controlling Interests	-	-	-	165	165
Participating Policyholders' Net Income	160	-	(44)	-	116
Preferred Share Dividends	-	-	-	32	32
Common Shareholders' Net Income (Loss)	986	448	515	(156)	1,793

For the Year Ended December 31, 2021 (in millions of Canadian dollars)	Sun Life Canada	Sun Life U.S.	Sun Life Asia	Corporate	Total
Expected Profit on In-force Business	1,170	310	612	(159)	1,933
Impact of New Business	119	-	(46)	-	73
Experience Gains and Losses	887	29	45	(126)	835
Assumption Changes and Management Actions	53	(66)	135	5	127
Other	(118)	(4)	352	(70)	160
Earnings on Operations (pre-tax)	2,111	269	1,098	(350)	3,128
Earnings on Surplus	53	51	164	248	516
Earnings before Income Taxes	2,164	320	1,262	(102)	3,644
Income Taxes	(372)	(59)	(117)	218	(330)
Earnings before Non-controlling Interests, Participating Policyholders' Net Income and Preferred Share Dividends	1,792	261	1,145	116	3,314
Less:					
Non-controlling Interests	-	-	-	156	156
Participating Policyholders' Net Income	265	-	70	-	335
Preferred Share Dividends	-	-	-	31	31
Common Shareholders' Net Income (Loss)	1,527	261	1,075	(71)	2,792

Analysis of results

For the year ended December 31, 2022, the pre-tax expected profit on in-force business of $1,991 million was $58 million higher than 2021. The increase in expected profit was largely driven by business growth in protection and health and the contribution from the DentaQuest acquisition, partially offset by lower wealth and asset management earnings reflecting declines in global equity markets.

The new business gain in 2022 was $80 million, $7 million higher than 2021, driven by higher new business gains in Canada.

The 2022 experience loss of $(146) million pre-tax was primarily due to lower equity markets and interest rate movements. This is partially offset by favourable investing activity gains across the businesses and favourable morbidity experience driven by U.S. medical stop-loss.

For the year 2022, assumption changes and management actions resulted in a pre-tax gain of $88 million. In Canada, the pre-tax gain of $97 million is driven by a number of largely favourable methodology changes and a favourable mortality impact in Group Retirement Services (GRS) offset partially by adverse morbidity impacts in Sun Life Health in Canada. In the U.S., the pre-tax loss of $(12) million reflected updates to lapse and policyholder behaviour in In-force Management. In Asia, the pre-tax loss of $(41) million reflected updates to lapse and policyholder behaviour, with the largest item an adverse lapse impact in Vietnam. In Corporate, the pre-tax gain of $44 million reflects an update to UK mortality.

Other in 2022 resulted in a pre-tax loss of $(127) million, including a charge related to the sale of Sun Life UK[1] and a charge reflecting the resolution of a matter related to reinsurance pricing for our U.S. In-force Management business, partially offset by a gain on the sale-leaseback of the Wellesley office in the U.S.

Net pre-tax earnings on surplus of $533 million in 2022 was $17 million higher than a year ago.

Income taxes include an increase in the value of deferred tax asset related to the Canada Tax Rate Change[2].

1 On August 4, 2022, we entered into an agreement to sell SLF of Canada UK Limited to Phoenix Group Holding plc. In Q3'22, we recognized an impairment charge of $(170) million (£(108) million) pertaining to the attributed goodwill that is not expected to be recovered through the sale.

2 On December 15, 2022, legislation implementing an additional surtax of 1.5% applicable to banks and life insurers' taxable income in excess of $100 million was enacted in Canada ("Canada Tax Rate Change"). This legislation applies retroactively to the Federal Budget date of April 7, 2022. As a result, reported net income increased by $127 million in the fourth quarter, reflected in Assumption changes and management actions ("ACMA") and Other adjustments.

Our subsidiaries and associates

The following table lists our direct and indirect subsidiaries as at December 31, 2022 and provides the book values (in millions of Canadian dollars, based on the equity method) of the shares of those subsidiaries that are principal operating subsidiaries. The table also lists significant joint venture entities in which we directly or indirectly hold 50% or less of the issued and outstanding voting securities. Subsidiaries which are inactive or which have been set up for the sole purpose of holding investments are not listed in the table.

As of December 31, 2022	Jurisdiction of formation	Book value of shares owned by Sun Life Assurance	Percent of voting shares owned by Sun Life Assurance
BestServe Financial Limited	Hong Kong	120	100%
Dental Health Alliance, L.L.C.	Delaware, USA		100%
Denticare of Alabama, Inc.	Alabama, USA		100%
PT. Sun Life Financial Indonesia	Indonesia	705	100%
PT. Sun Life Indonesia Services	Indonesia		100%
SL Insurance (Hungary) Finance No. 2 Kft	Hungary		100%
SLA US Real Estate Holdings, Inc.	Delaware, USA		100%
SLF of Canada UK Limited	England and Wales		100%
Sun Life Assurance Company of Canada (U.K.) Limited	England and Wales	369	100%
Barnwood Properties Limited	England and Wales		100%
Sun Life of Canada UK Holdings Limited	England and Wales		100%
Laurtrust Limited	England and Wales		100%
SLFC Services Company (UK) Limited	England and Wales		100%
Solidify Software, LLC	Kansas, USA		100%
Sun Life (Bermuda) Finance No. 2 LLC	Bermuda		100%
Sun Life (Luxembourg) Finance No. 2 SARL	Luxembourg		100%
Sun Life (India) AMC Investments Inc.	Canada		100%
Aditya Birla Sun Life AMC Limited	India		36.49%
Sun Life (Singapore) Support Center Pte. Ltd.	Singapore		100%
Sun Life and Health Insurance Company (U.S.)	Michigan, USA	535	100%
Sun Life Capital Trust	Ontario, Canada		100%
Sun Life Everbright Life Insurance Company Limited	Tianjin, People's Republic of China		24.99%
Sun Life Financial (India) Insurance Investments Inc.	Canada		100%
Aditya Birla Sun Life Insurance Company Limited	India		49%
Sun Life Financial Asia Services Limited	Hong Kong		100%
Sun Life Financial Distributors (Canada) Inc.	Canada	8	100%
Sun Life Financial International Holdings (MC), LLC	Delaware, USA		100%
Sun Life Financial Investment Services (Canada) Inc.	Canada	70	100%
Sun Life Financial Investments (Bermuda) Ltd.	Bermuda		100%

As of December 31, 2022	Jurisdiction of formation	Book value of shares owned by Sun Life Assurance	Percent of voting shares owned by Sun Life Assurance
Sun Life Financial of Canada (U.K.) Overseas Investments Limited	England and Wales		100%
Sun Life of Canada (Netherlands) B.V.	Netherlands		100%
Sun Life Financial Philippine Holding Company, Inc.	Philippines		100%
Sun Life Grepa Financial, Inc.	Philippines		49%
Sun Life Investment Management and Trust Corporation	Philippines		100%
Sun Life of Canada (Philippines), Inc.	Philippines	1,478	100%
Sun Life Asset Management Company, Inc.	Philippines		100%
Sun Life Financial Plans, Inc.	Philippines		100%
Sun Life Financial Trust Inc.	Canada	99	100%
Sun Life Hong Kong Limited	Bermuda	2,449	100%
Sun Life Asset Management (HK) Limited	Hong Kong		100%
Sun Life Pension Trust Limited	Hong Kong		100%
Sun Life Trustee Company Limited	Hong Kong		100%
Sun Life India Service Centre Private Limited	India		100%
Sun Life Information Services Canada, Inc.	Canada		100%
Sun Life Information Services Ireland Limited	Republic of Ireland		100%
Sun Life Insurance (Canada) Limited	Canada	2,291	100%
SLI General Partner Limited	Canada		100%
SLI Investments LP	Manitoba, Canada		100%
6425411 Canada Inc.	Canada		100%
Sun Life Investments LLC	Delaware, USA		100%
SLI US Real Estate Holdings, Inc.	Delaware, USA		100%
12723603 Canada Inc.	Canada		100%
Sun Life Malaysia Assurance Berhad	Malaysia		49%
Sun Life Malaysia Takaful Berhad	Malaysia		49%
Sun Life Vietnam Insurance Company Limited	Vietnam	895	100%
UDC Dental California, Inc.	California, USA		100%
UDC Ohio, Inc.	Ohio, USA		100%
Union Security DentalCare of Georgia, Inc.	Georgia, USA		100%
Union Security DentalCare of New Jersey, Inc.	New Jersey, USA		100%
United Dental Care of Arizona, Inc.	Arizona, USA		100%
United Dental Care of Colorado, Inc.	Colorado, USA		100%
United Dental Care of Missouri, Inc.	Missouri, USA		100%
United Dental Care of New Mexico, Inc.	New Mexico, USA		100%
United Dental Care of Texas, Inc.	Texas, USA		100%

As of December 31, 2022	Jurisdiction of formation	Book value of shares owned by Sun Life Assurance	Percent of voting shares owned by Sun Life Assurance
United Dental Care of Utah, Inc.	Utah, USA		100%
7647913 Canada Inc.	Canada		100%
7647930 Canada Inc.	Canada		100%

Appendix A

Policyholder dividend and participating account management policies

Dividend Policy for Participating Policies of Sun Life Assurance Company of Canada

Sun Life Assurance Company of Canada ("Sun Life") is a company governed by the *Insurance Companies Act* (Canada) that was converted from a mutual company into a company with common shares in 2000. (Such a transaction is referred to as a "Conversion".) Clarica Life Insurance Company ("Clarica") was converted from a mutual company into a company with common shares in 1999 and was amalgamated with Sun Life in 2002. (The amalgamated company, named Sun Life Assurance Company of Canada, is referred to as the "Company".)

This Dividend Policy applies to participating policies of the Company.

Participating policyholders of the Company are eligible to receive distributions in respect of their policies, commonly referred to as policy dividends[1], as declared from time to time at the discretion of the Board of Directors of the Company in accordance with applicable law.

Participating policies are accounted for separately by territory as outlined in the Participating Account Management Policy. Within the Canadian territory, participating policies issued by Sun Life before its Conversion are accounted for separately from policies issued by Sun Life after its Conversion, and participating policies issued by Clarica before its Conversion are accounted for separately from policies issued by Clarica after its Conversion.

The assets and earnings of the pre-Conversion blocks of participating business that are specified by the terms of the Conversion plans of Sun Life and Clarica are exclusively for the benefit of the participating policies in the applicable pre-Conversion block. (These blocks of participating business are referred to as "Closed Blocks".)

Earnings arise from sources of gain and loss related to experience factors including, but not limited to, investment returns, mortality, policy surrender, expenses, and taxes (these and other applicable factors are referred to as "Experience Factors"). The dividends are generated by the differences between the actual levels of experience and the assumed levels of experience for these Experience Factors. Since actual levels of experience cannot be known in advance, dividends cannot be guaranteed. Experience can improve or deteriorate over time and, as a result, dividends may be increased or reduced.

The amount of dividends distributed generally reflects changes in experience, by territorial participating sub-accounts, over time, which may be smoothed to provide greater consistency in the amount of dividends distributed from one period to the next. The effect of smoothing is to spread the impact of experience fluctuations into policyholder dividends over time, with the objective of achieving greater stability of dividends from one period to the next. The extent of smoothing to be used, if any, will depend on considerations such as the source and extent of the fluctuation in experience, expected trends in the future experience, and the potential impact on policyholder dividends. This is done with the objective of ensuring no unnecessary build-up or deficiency.

Dividends on Closed Block participating policies are distributed from the earnings of the Closed Block participating business consisting of those policies, with the objective of distributing the assets in the Closed Block over the lifetime of the business in the Closed Block.

Dividends on pre-Conversion participating policies that are not in Closed Blocks (i.e. Malta and Other Foreign) are determined as required by the terms of the Conversion plans or are determined in the same manner as dividends on participating policies issued after Conversion.

Dividends on post-Conversion participating policies are distributed from the earnings of the post-Conversion participating business consisting of those policies. In addition, the Company retains a portion of earnings in the post-Conversion participating business, as part of the dividend scale process, as a permanent contribution to surplus. Further details on the management and use of surplus of the Participating Account is described in the Participating Account Management Policy.

Any distribution of funds from the participating accounts to shareholders of the Company is limited by the provisions of the *Insurance Companies Act* (Canada) and the Conversion plans of Sun Life and Clarica.

The dividend allocation process followed by the Company in respect of participating policies recognizes the contributions made by the policies to the pre-Conversion or post-Conversion participating business to which they belong. Not all policies contribute to the same extent or at the same time, and there are certain practical limits, legal constraints and prevailing local practices that apply to the allocation in some circumstances. This process seeks to achieve reasonable equity among classes and generations of policies. In order to determine the contribution of policies, policies are grouped into classes with common Experience Factors.

The dividend scales of the Company are established by the Board of Directors of the Company from time to time, and reviewed at least once each year based on a recommendation from the Appointed Actuary that is required to be in compliance with all relevant standards of the Canadian Institute of Actuaries. If any significant deviation from the recommendation is approved, it will be documented in Board minutes and with the final dividend recommendation.

Dividends are credited to policies on the anniversary date or as otherwise specified by the policy. For certain groups of policies, dividends may vary according to the amount of any policy loan. Other dividends called terminal or special maturity dividends may be credited to a policy upon surrender or maturity of the policy, or upon death of the insured. The type of policy, the amount of time it has been in force and the manner of its termination will affect eligibility for, and the amount of, the terminal or special maturity dividend, if any.

The Company may, from time to time, acquire participating business from other insurers. This Dividend Policy is intended to apply to such acquired business, subject to the terms and conditions applying to the acquisition.

This Dividend Policy is subject to change from time to time at the discretion of the Board of Directors of the Company, subject to applicable law. The principal factors that might cause the Board of Directors of the Company to review this policy include legislative or regulatory changes, significant corporate restructuring, significant unforeseen events, or a desire to clarify this policy.

Participating Account Management Policy for Sun Life Assurance Company of Canada

Sun Life Assurance Company of Canada ("Sun Life") is a company governed by the *Insurance Companies Act* (Canada) (ICA) that was converted from a mutual company into a company with common shares in 2000. (Such a transaction is referred to as a "Conversion".) Clarica Life Insurance Company ("Clarica") was converted from a mutual company into a company with common shares in 1999 and was amalgamated with Sun Life in 2002. (The amalgamated company, named Sun Life Assurance Company of Canada, is referred to as the "Company".)

This Participating Account Management Policy applies to participating accounts of the Company set up pursuant to section 456 of the ICA.

(a) Business Governed by the Participating Account Management Policy

The Company maintains territorial participating accounts, some of which have sub-accounts, for its participating policies that are separate from the accounts for its non-participating policies and other businesses. Each participating account records the assets, liabilities, premiums and any earnings for participating policies only. Participating policies issued by Sun Life are also accounted for separately from participating policies issued by Clarica in order to be able to administer all business in accordance with commitments made by Sun Life and Clarica at the time of their Conversions.

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1 For certain types of policies, distributions do not take the form of dividends but instead are adjustments to policy values such as cash value, death benefit, cost of insurance or premiums.

The Company has seven territorial participating accounts, one each for

- Canadian participating policies issued by Sun Life (including policies issued in Bermuda)
- Canadian participating policies issued or acquired by Clarica
- US participating policies issued by Sun Life
- Philippines participating policies issued by Sun Life prior to its Conversion
- International participating policies issued by Sun Life after its Conversion
- Malta participating policies issued by Sun Life
- Other Foreign participating policies issued by Sun Life

Only the participating account for Canadian participating policies issued by Sun Life is open to new business.

(b) Investment Policy for the Participating Account

The Company has an investment policy for the assets in each participating account. These policies outline investment criteria related to asset mix, liquidity, credit risk, currency risk, interest rate risk, thereby recognizing the specific liability characteristics of each of the participating accounts.

The investment objectives are designed and managed to optimize long-term, after-tax investment earnings, subject to risk tolerances and limits.

The specific investments used to achieve the investment objectives of the participating accounts vary, and may include combinations of fixed income assets, equity, real estate and other non-fixed income assets. The Company may use derivative products for risk management purposes or in investment replication strategies.

These policies are reviewed regularly by management to ensure they meet the Board approved requirements. The Company monitors each participating account to ensure that its investment policy is followed consistently and controls are in place to ensure target mixes by type of asset, quality and term are maintained within defined tolerance limits.

(c) Allocating Investment Income to the Participating Account

Assets are maintained in each participating account in an amount equal to the account's total liabilities and surplus. The investment income credited to each account is the earnings on assets allocated to that account. The Appointed Actuary of the Company provides an annual opinion to the Board as to whether the allocations are fair and equitable to participating policyholders.

(d) Allocation of Expenses, including Taxes, to the Participating Account

The allocation of Company expenses to each participating account is supported by expense analysis prepared in accordance with professional standards and legal requirements. The allocation includes an appropriate assignment of overhead costs. Premium taxes are allocated directly with the premium that gives rise to the tax. Income taxes are allocated based on accounting income subject to tax multiplied by the effective tax rate. In the Philippines, final taxes relating to investment income are allocated in the same proportion as the investment income. The Appointed Actuary provides an annual opinion to the Board as to whether the allocations are fair and equitable to participating policyholders.

Commitments made at the time of demutualization may impact allocations of expenses at the sub-account level.

(e) Management and Use of Surplus

Blocks of participating business sold pre-Conversion do not generate surplus as these were funded at Conversion to meet policyholders' reasonable expectations and all funds are expected to be returned to policyholders over time.

For post-Conversion participating business, the Company retains a portion of earnings as a permanent contribution to surplus, which is managed through the dividend scale process. The permanent contribution to surplus is a portion of earnings retained in the Participating Account surplus along with the investment returns earned on the Participating Account surplus assets. Surplus is required for a number of purposes including to help ensure the Company can meet its obligations to participating policyholders, help ensure financial strength and stability of the Company, finance new business growth, provide for transitions during periods of major change, and avoid undue fluctuations in dividends[1], all of which are subject to items such as practical considerations and limits, legal and regulatory requirements, and industry practices. The surplus position is reviewed annually, having regard for the circumstances of the Participating Account. Based on the review, contributions to surplus may be adjusted by increasing or decreasing the dividend scale. Any accumulated permanent contribution to surplus remains part of the Participating Account surplus after policyholder insurance coverage terminates. Transfers of surplus to shareholders are limited by the ICA.

(f) Factors which Might Result in Modification of the Policy

Changes might be contemplated to clarify the intent of this policy or in the event of legislative and regulatory changes, changes in accounting rules, acquisitions, divestitures, or any significant corporate restructuring.

(g) Management and Disposal of Surplus in Participating Accounts for which New Business is Not Accepted

The participating accounts are managed in accordance with the commitments made at the time of Conversion. Under the ICA, Sun Life has the right to transfer surplus amounts not required by the participating business to the shareholders with the permission of the Regulator.

(h) Measures to Ensure Fairness to Participating Policyholders whose Policies form part of a Closed Block Created as Part of Conversion Terms:

The management of Closed Blocks of participating business sold pre-Conversion are specified by the terms of the Conversion plans of Sun Life and Clarica.

Measures to ensure fairness to participating policyholders in the Closed Blocks were described in the Conversion Plans which provided the information upon which participating policyholders voted for Conversion. As part of Conversion, each of Sun Life and Clarica made commitments to provide for policyholders' reasonable expectation. The commitments were further described in supplementary documents which guide the administration of participating business.

The Appointed Actuary provides an annual opinion to the Regulator as to whether all participating blocks are being managed according to the commitments made at Conversion. The Appointed Actuary also provides fairness opinions with respect to the dividend policy, the dividend recommendations, participating account management and allocations of income and expenses to the participating accounts.

(i) Percentage of Participating Account Income Transferred to Shareholders or Shareholder Accounts as a Percentage of Maximum Allowed

Transfers made from the Participating Account under ICA section 461 are restricted to between 2.5% and 10% (depending on the size of the Participating Account of the Company) of total amounts distributed in respect of participating policies issued after demutualization. The maximum percentage is redetermined annually and is close to 2.5% at this time. The Company intends to transfer the maximum amount allowed.

[1] The use of surplus for this purpose is limited to the occurrence of unusual events, and as such, is not a common occurrence.

Sun Life

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