

2018

ANNUAL
REPORT

Sun Life
Financial
Inc.



Sun Life

Life's brighter under the sun

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The world of Sun Life

Sun Life Financial is a leading international financial services organization providing insurance, wealth and asset management solutions to individual and corporate Clients. Sun Life Financial has operations in a number of markets worldwide, including Canada, the United States, the United Kingdom, Ireland, Hong Kong, the Philippines, Japan, Indonesia, India, China, Australia, Singapore, Vietnam, Malaysia and Bermuda.



OUR FOUR PILLAR STRATEGY

Our strategy is focused on four key pillars of growth, where we aim to be a leader in the markets in which we operate.



"The understanding and compassion [that Sun Life has] shown has meant so much to me."



After complications from ankle surgery left her unable to work full-time, Sun Life U.S. Client, Doreen, a teacher of 30 years, was able to return to the profession she loves. Working with Scott, a Sun Life Vocational Rehabilitation Consultant, together they created a plan that in Doreen's words gave her "what she needed to get her life back."

Doreen (left), with Sun Life employee, Scott Ferris (right), at our office in Scarborough, Maine. Creating *moments that matter* for our Clients.

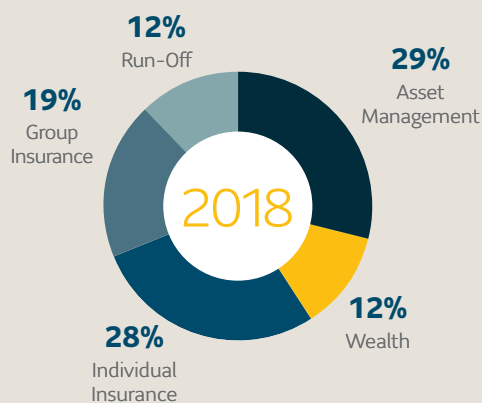
OUR PURPOSE

Helping our Clients achieve lifetime financial security and live healthier lives

BALANCED AND DIVERSIFIED BUSINESS

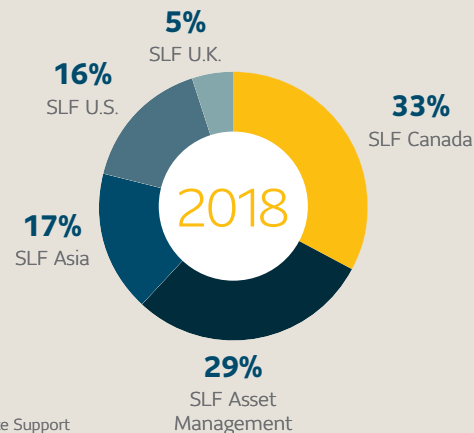
BUSINESS DIVERSIFICATION

Underlying Net Income^{*,1,2}



GEOGRAPHIC DIVERSIFICATION

Underlying Net Income^{*,1,2}



^{*}Excludes Corporate Support



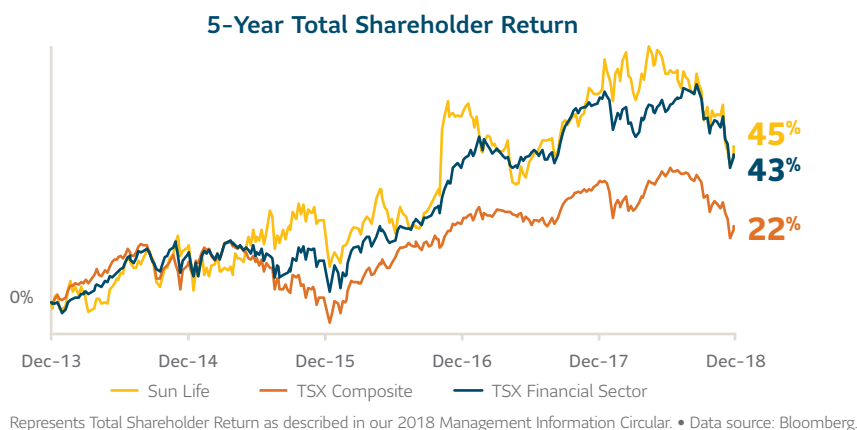
\$951 billion
ASSETS UNDER MANAGEMENT^{1,2}



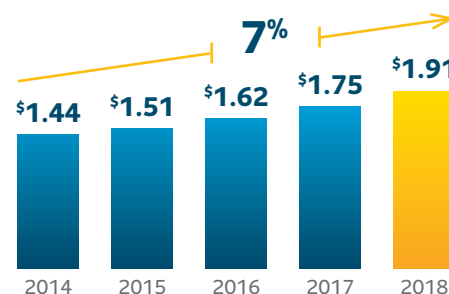
\$16 billion
CLAIMS AND BENEFITS PAID IN 2018

Financial Highlights

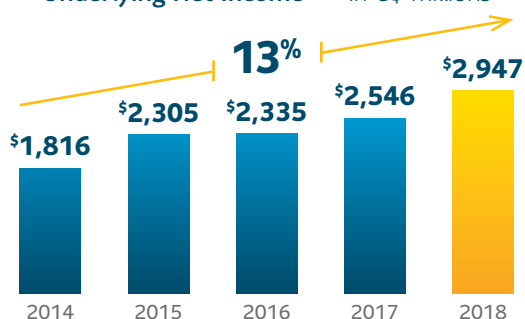
DELIVERING VALUE TO SHAREHOLDERS



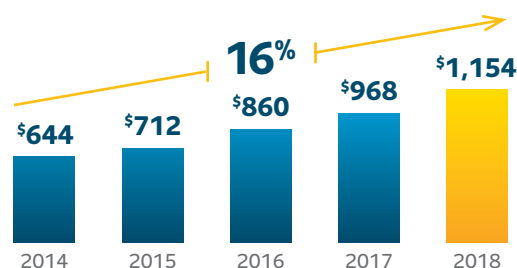
Dividend per Common Share³



Underlying Net Income^{2,3} - in C\$ millions



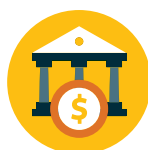
Value of New Business^{2,3,4} - in C\$ millions



STRONG CAPITAL AND FINANCIAL FLEXIBILITY

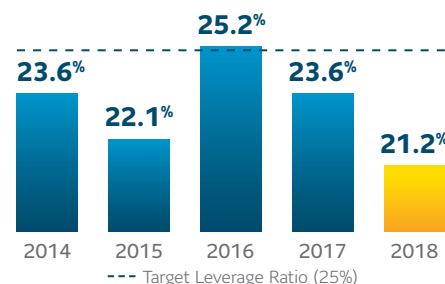
Life Insurance Capital Adequacy Test (LICAT) Ratio¹

144%
SUN LIFE
FINANCIAL INC.



131%
SUN LIFE
ASSURANCE

Financial Leverage Ratio²



MEDIUM-TERM FINANCIAL OBJECTIVES^{1,2}

Based on Underlying Net Income



17%

Growth in Earnings Per Share



14.2%

Return on Equity



39%

Dividend Payout Ratio

Average EPS growth
8-10% per annum

Return on Equity
12-14%

Dividend payout ratio
40-50%

2018 Progress on Medium-Term Objectives

¹All figures as of December 31, 2018. • ²Underlying net income, underlying return on equity, underlying earnings per share, financial leverage ratio, dividend payout ratio, and assets under management described on pages 1-8 of this Annual Report represent non-IFRS financial measures. For additional information see Non-IFRS Financial Measures in our 2018 Annual Management's Discussion and Analysis • ³Percentage results are 4-year compound annual growth rates from 2014. • ⁴Value of New Business represents the present value of our best estimate of future distributable earnings, net of the cost of capital, from new business contracts written in a particular time period, except new business in our SLF Asset Management pillar. • 2018 Reported Net Income by Business Group: SLF Canada 35%, SLF U.S. 2%, SLF Asset Management 34%, SLF Asia 20%, SLF U.K. 9%. • 2018 Reported Net Income by Type of Business: Run-off < 1%, Asset Management 34%, Wealth 14%, Individual Insurance 31%, Group Insurance 21%. • Reported Net Income: 2014 \$1.8 billion; 2015 \$2.2 billion; 2016 \$2.5 billion; 2017 \$2.1 billion; 2018 \$2.5 billion



To my Fellow Shareholders

In 2018 Sun Life continued to demonstrate strong financial performance across our four business pillars, and to maintain a balanced risk profile. Growth momentum in each of our business pillars contributed to strong performance against our medium-term financial objectives. We grew both underlying earnings per share and underlying return on equity, and increased our common share dividend by 9%.

2018 was also a year that saw several macro forces and strategic factors play out on the global stage – from significant geopolitical, market and economic uncertainty, to continued digital disruption and evolving Client expectations. We believe our Client centric strategy has been an important factor in allowing us to achieve total shareholder returns that outperformed industry peers in North America and globally on a one-, three- and five-year basis, although the absolute return for 2018 was below our long-term expectations. Your Directors are confident in the direction management is moving Sun Life forward to achieve our ambition to become one of the best insurance and asset management companies in the world.

The Board continues to place a strong focus on capital management. Sun Life remains well positioned following the implementation of the Life Insurance Capital Adequacy Test (LICAT), which took effect in January 2018. The Company maintains a strong balance sheet and capital ratio, supporting an ability to invest in organic growth as well as consider acquisitions that complement the Company's strategy.

A strong financial footing has also been the catalyst for significant investment in raising Sun Life's Client focus around the globe. We are pleased with the intensity of progress on this front, including digital transformation accomplishments across the Company.

As part of Sun Life's ongoing focus on diversity and inclusion, we were pleased to see Sun Life named to the Bloomberg Gender-Equality Index, the gold standard for organizations around the world demonstrating their commitment to gender equality in the workplace. The Board's oversight of diversity and inclusion is part of the Company's continuing focus to increase talent in strategic areas such as data analytics and digital innovation.

Your Directors remain unwavering in our commitment to ensure Sun Life grows as a sustainable organization that delivers long-term value to our Clients, employees, shareholders and communities. In support of this focus, we were pleased to see Sun Life recognized for the tenth consecutive year as one of the Global 100 Most Sustainable Corporations in the World.

I would like to take this opportunity to thank retiring director Christopher McCormick for his outstanding contributions to Sun Life's Board over the past two years. We have welcomed two new directors since our last annual meeting, James Peck and Ashok Gupta, whose experience and knowledge make them excellent additions to our Board.

On behalf of Sun Life's Board of Directors, thank you to our shareholders and Clients for your continued confidence and trust in Sun Life, and to our fabulous team of employees and advisors for the passion and dedication they bring to Sun Life every day.

WILLIAM (BILL) D. ANDERSON
Chairman of the Board



Our balanced and diversified mix of businesses led the way in **2018**

2018 was another year of positive results for Sun Life. We grew underlying net income by 16% to over \$2.9 billion, generated an underlying return on equity of 14.2% and increased the common share dividend by 9%. The value of new business, which is the present value of future income from sales in the current year, rose 19% over the prior year on strong sales, pricing and product mix actions. Our capital position is strong, allowing us to invest in organic growth, pursue M&A opportunities that fit our strategy, and manage a share repurchase program. Assets under management finished the year at \$951 billion.

VALUE OF NEW BUSINESS



Up 19% in 2018

Of our four business pillars, **Canada** is our largest and most established, with leading market positions in group pensions, group benefits and individual insurance. In 2018, we continued to leverage our technology advantage with new Client-friendly features in our mobile and online apps. Our retail wealth business continued to invest in new capabilities, including the acquisition of Excel Funds, bringing new emerging market funds to our Canadian Clients. Canada's future growth will come from doing more for Clients, growing our distribution capabilities, building more scale in our retail wealth business, broadening and innovating within Digital Health Solutions, and continued productivity gains.

In **U.S. Group Benefits**, we generated significant margin improvement as we substantially completed the integration of the Assurant Employee Benefits acquisition, and drove strong results in our leading medical stop-loss insurance business. In 2018 we acquired Maxwell Health, a digital platform that makes it easy for plan members to make good benefit plan enrolment decisions, along with administration tools for employers and brokers. Future U.S. growth will come from continued sales success, continued productivity gains, and from leveraging the Maxwell Health platform to help plan members make great personal choices, including closing the insurance coverage gap.

Asia continues to be our fastest growing pillar, driven by a rapidly growing middle class. Underlying net income from our seven Asian markets have more than tripled over the past five years. We resegmented our International high net worth insurance business from the U.S. to Asia in 2018, and Asia's underlying net income grew to over \$500 million for the first time. Future growth in Asia will come from continued growth in the number and quality of Sun Life advisors, increasing bank distribution, increasing high net worth Clients and health product sales, and from innovations like opening new distribution channels and our telco partnerships in Southeast Asia.

Turning to **Asset Management**, MFS Investment Management is our premier investment management firm, with US\$428 billion of assets under management at December 31, 2018. Like other active managers, MFS saw net outflows due to Clients shifting assets to alternative investments, annuitization, and passive management. MFS continued to post strong investment performance results; it continued to invest in expanding institutional fixed income capabilities; and notwithstanding slow downward fee movement, margins were stable through business mix and careful management of expenses.



We also continue to invest in Sun Life Investment Management, our \$66 billion alternative investments business. In 2018, we announced an agreement to merge our real estate investment manager, Bentall Kennedy, with GreenOak Real Estate, a firm with multi-region capabilities in a broad range of investment solutions, including the value-add sector.

WE'RE CREATING PROACTIVE, PERSONAL AND RELEVANT CLIENT EXPERIENCES

I'm particularly pleased with the progress in our Client strategy, called Client for life. This is a "movement" within the Company, an obsession that touches every corner of our business, from Manila to Montreal, from investments to insurance, from call centres to claims, and everything in between.

By making it easier to do business with us, by being more personalized and proactive with Clients, and by resolving their problems better, we believe Clients will do more business with us, stay longer and refer more family and friends.

Clients can now access Sun Life through more convenient touchpoints: mobile, online, by phone, or in person.

For example, through our #1 Client-rated app in Canadian financial services, Clients can submit health claims in real-time, check investment balances, make contributions, and connect with their advisor on their mobile. They can even find, book, and rate their dentist and other health professionals. At Sun Life, we believe there is tremendous value in financial advice from a trusted advisor.



We continue to invest in growing and training our more than 112,000 advisors around the world, including more tools to help them connect and be proactive with Clients. For example, Sun Life advisors in Canada can now conduct meetings by video if that makes it easier for Clients.

In most of our Asian countries, the financial needs analysis, product illustration, application and fulfillment is now a digital end-to-end process that makes for an easier and more consistent Client experience. In Hong Kong, Clients can have claims paid within 24 hours and view their entire family coverage and assets in one place. In the Philippines, we collaborate with Lazada, the leading e-commerce platform in Southeast Asia, where three million Filipinos can now access affordable Sun Life insurance at their fingertips.



We're using data to be more personal and proactive with our Clients.

Data is behind *Ella*, our interactive digital coach for benefits and pension plans. Imagine your child is turning 21 and you forgot she's about to drop off your benefits coverage at work. *Ella's* got your back, proactively nudging you to ensure you have the family coverage you need. In 2018, we presented more than 10 million digital nudges to plan members. As one outcome, Clients increased their additional in-plan deposits by 24% to over \$900 million. Clients who were nudged by *Ella* show much higher Client experience scores.

Not all the changes are digital. We are systematically rewriting every piece of Client communication in plain language. In the United Kingdom, we redesigned our Client communication materials and received very positive feedback from Clients on their improved readability.



10 million
DIGITAL NUDGES

WE'RE BRINGING OUR DIGITAL STRATEGY TO LIFE WITH INNOVATIVE PARTNERS

An exciting part of our digital strategy is the relationships we're building with technology and innovation partners.

In the U.S., we launched our first product with **Collective Health** – a Silicon Valley healthtech partner that is producing some amazing results as they manage employer health plans. Together, we're fully integrating stop-loss protection with an advanced workforce health management platform for self-funded employers. Employers benefit from financial protection from high-dollar medical claims, along with seamless claim reimbursement.

In 2018, we launched **Lumino Health**, Canada's premier online network of health resources, free for all Canadians.

Leveraging the data we have on health providers like dentists and physiotherapists, their relative costs, and quality ratings provided by Sun Life plan members (seven million ratings at last count), Lumino provides health tips, valuable offers, health provider ratings and price comparisons to help Canadians make better health-care decisions. Between Lumino and our group benefits app, we've seen over 3.5 million searches so far for health-care providers. We're excited about the potential new revenue streams Lumino Health can create, by providing a frictionless platform to connect consumers and health providers.

In Hong Kong, we invested in **Bowtie Life Insurance Company**. It's the first virtual insurer approved under the Fast Track pilot plan, launched by the Insurance Authority of Hong Kong to fast track applications for insurers operating purely online.

WE'RE ON A JOURNEY TO BECOME ONE OF THE BEST

Our ambition is to be viewed as one of the best insurance and asset management companies in the world, and we measure that in five ways:

Cultivating top talent, wrapped in a unique and inclusive culture. During 2018, we continued to invest in talent through training, accelerated development programs, disciplined recruiting and new programs focused on diversity and inclusion. Our culture is one reason people are attracted to Sun Life: it's uniquely collaborative, inclusive, focused on external competition, and high performing. Our 2018 engagement survey score was 85%, above the norm for global financial services firms.

Why has Sun Life been successful? We have a great four pillar strategy, but the execution is all about the people and culture. They are pulling the oars hard, and they are pulling the oars together.

Client scores in the top quartile of our industry.

We measure Client experience scores for ourselves and key competitors in each market where we compete, and in 2018 our scores increased again for the third year in a row. Our 2018 Client experience scores were top quartile in seven of 11 key markets. We're working hard on the other four markets.

Each of our four pillars is viewed as a leader in its respective area. Sun Life is viewed as a leader in Canada; MFS and Bentall Kennedy (and soon to include GreenOak Real Estate) are viewed as premier competitors in their respective sectors; our U.S. business is viewed as a leader in stop-loss, with increasing scale and momentum in Group Benefits; and Sun Life is one of the fastest growing competitors among multinationals operating in Asia.

We deliver on our Purpose. Our Purpose is to help Clients achieve lifetime financial security and live healthier lives. We're doing well, but much work remains. We need to continue to improve the quality of advice from Sun Life advisors and retain them longer. We need to make it even simpler to buy life and health insurance. And we need to close the gaps in coverage that we know exist.

Top quartile Total Shareholder Return. Over the past five years, Sun Life's Total Shareholder Return has averaged 7.7% per annum – top quartile performance among 20 global competitors, and #1 among 11 North American competitors. This reflects strong growth in underlying net income, averaging 13% per annum over the last five years, an attractive dividend yield, and strong ROE, which reached 14.2% in 2018.

WE'RE SHAPING COMMUNITIES FOR TOMORROW

Underpinning our strategy is an enduring commitment to sustainability. We've been named one of the Global 100 Most Sustainable Corporations in the World for ten years in a row, and we're included on the Dow Jones Sustainability Index (North America). Our sustainability strategy is making a difference where we live and work.



We have set goals for reducing greenhouse gas emissions by 2020 and 2030, and throughout our operations, we're managing paper use and beefing up technology like video and web conferencing, which means less resources spent on travel.

We've made substantial investments in renewable energy, including hydro, solar and wind farms, and incorporate climate change considerations into our investments in critical public infrastructure. We've also increased our holdings in green bonds in North America and Asia to more than \$480 million. An example is our purchase of International Finance Corp's Green Bonds, the first of its kind in the Philippines.

Proceeds go to renewable energy, energy efficiency and other climate-smart projects.

Diabetes research and prevention continues to be at the heart of how we support healthy communities. To date, we've pledged \$25 million to fight diabetes, including our *Sun Life Dunk for Diabetes* promotion with the Toronto Raptors and Boston Celtics basketball teams, and our January *Sun Life Resolution Runs* across Asia that support local diabetes charities.



WE'RE
BUILDING
UPON OUR
TRUSTED
BRAND

Sun Life has been a trusted brand for more than 153 years. Around the world, our brand symbolizes trust, optimism, security and a commitment to Clients.



Over generations, our business has grown and evolved, and now it's changing once again. Looking ahead, you'll notice that our logo is bigger and bolder, and we will be known as Sun Life, dropping the word "Financial". This reflects that health, and helping Clients live healthier lives, is now a key element of our Purpose.

WE'RE
EXCITED
ABOUT THE
JOURNEY
AHEAD

When Sun Life's founders huddled around a meeting table in Montreal in March 1865, they aspired to create a life insurance company whose North Star was all about providing financial protection to ordinary people. Over 150 years later, after two World Wars, a Great Depression, a Great Recession and countless other world events, that North Star is shining brighter than ever. I think our founders would be proud of what Sun Life has become, and would be thrilled to see what lies ahead.

My sincere thanks to our shareholders for your confidence in Sun Life. Thanks to our Board of Directors for your wise counsel and unwavering commitment to the Company's success. Thanks to our employees, advisors and partners, for your enthusiasm and laser-like focus on our Client strategy. And to our Clients, thank you for the privilege of serving you, and we look forward to being there for you in the moments that matter most.

DEAN A. CONNOR
President & Chief Executive Officer

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Management's Discussion and Analysis

February 13, 2019

A. How We Report Our Results

Sun Life Financial Inc. ("SLF Inc.") is a leading international financial services organization providing insurance, wealth and asset management solutions to individual and corporate Clients. Sun Life Financial has operations in a number of markets worldwide, including Canada, the United States, the United Kingdom, Ireland, Hong Kong, the Philippines, Japan, Indonesia, India, China, Australia, Singapore, Vietnam, Malaysia and Bermuda. As of December 31, 2018, Sun Life Financial had total assets under management ("AUM") of \$951 billion.

SLF Inc. is a publicly traded company domiciled in Canada and is the holding company of Sun Life Assurance Company of Canada ("Sun Life Assurance"). In this management's discussion and analysis ("MD&A"), SLF Inc., its subsidiaries and, where applicable, its joint ventures and associates are collectively referred to as "the Company", "Sun Life Financial", "we", "our", and "us". Unless otherwise indicated, all information in this MD&A is presented as at and for the year ended December 31, 2018 and the information contained in this document is in Canadian dollars. Where information at and for the year ended December 31, 2018 is not available, information available for the latest period before December 31, 2018 is used. Except where otherwise noted, financial information is presented in accordance with International Financial Reporting Standards ("IFRS") and the accounting requirements of the Office of the Superintendent of Financial Institutions ("OSFI").

We manage our operations and report our financial results in five business segments: Sun Life Financial Canada ("SLF Canada"), Sun Life Financial United States ("SLF U.S."), Sun Life Financial Asset Management ("SLF Asset Management"), Sun Life Financial Asia ("SLF Asia"), and Corporate. Information concerning these segments is included in our annual and interim consolidated financial statements and accompanying notes ("Annual Consolidated Financial Statements" and "Interim Consolidated Financial Statements", respectively, and "Consolidated Financial Statements" collectively) and this MD&A. Effective in the first quarter of 2018, we transferred our International business unit from SLF U.S. to SLF Asia and comparable periods have been changed to conform with the current year presentation.

i. Use of Non-IFRS Financial Measures

We report certain financial information using non-IFRS financial measures, as we believe that these measures provide information that is useful to investors in understanding our performance and facilitate a comparison of our quarterly and full year results from period to period. These non-IFRS financial measures do not have any standardized meaning and may not be comparable with similar measures used by other companies. For certain non-IFRS financial measures, there are no directly comparable amounts under IFRS. These non-IFRS financial measures should not be viewed as alternatives to measures of financial performance determined in accordance with IFRS. Additional information concerning these non-IFRS financial measures and reconciliations to the closest IFRS measures are available in section L - Non-IFRS Financial Measures in this document. Further additional information concerning these non-IFRS financial measures and reconciliations to the closest IFRS measures are included in the Supplementary Financial Information packages that are available on www.sunlife.com under Investors - Financial results & reports.

ii. Forward-looking Statements

Certain statements in this document are forward-looking statements within the meaning of certain securities laws, including the "safe harbour" provisions of the United States Private Securities Litigation Reform Act of 1995 and applicable Canadian securities legislation. Additional information concerning forward-looking statements and important risk factors that could cause our assumptions, estimates, expectations and projections to be inaccurate and our actual results or events to differ materially from those expressed in or implied by such forward-looking statements can be found in section O - Forward-looking Statements in this document.

iii. Additional Information

Additional information relating to the Company can be found in the Consolidated Financial Statements and SLF Inc.'s Annual Information Form ("AIF") for the year ended December 31, 2018. These documents are filed with securities regulators in Canada and are available at www.sedar.com. SLF Inc.'s Annual Consolidated Financial Statements, annual MD&A and AIF are filed with the United States Securities and Exchange Commission ("SEC") in SLF Inc.'s annual report on Form 40-F and SLF Inc.'s interim MD&As and Interim Consolidated Financial Statements are furnished to the SEC on Form 6-Ks and are available at www.sec.gov.

B. Overview

Sun Life Financial is a leading international financial services organization providing a diverse range of insurance, wealth and asset management solutions to individual and corporate Clients.

Purpose and Ambition

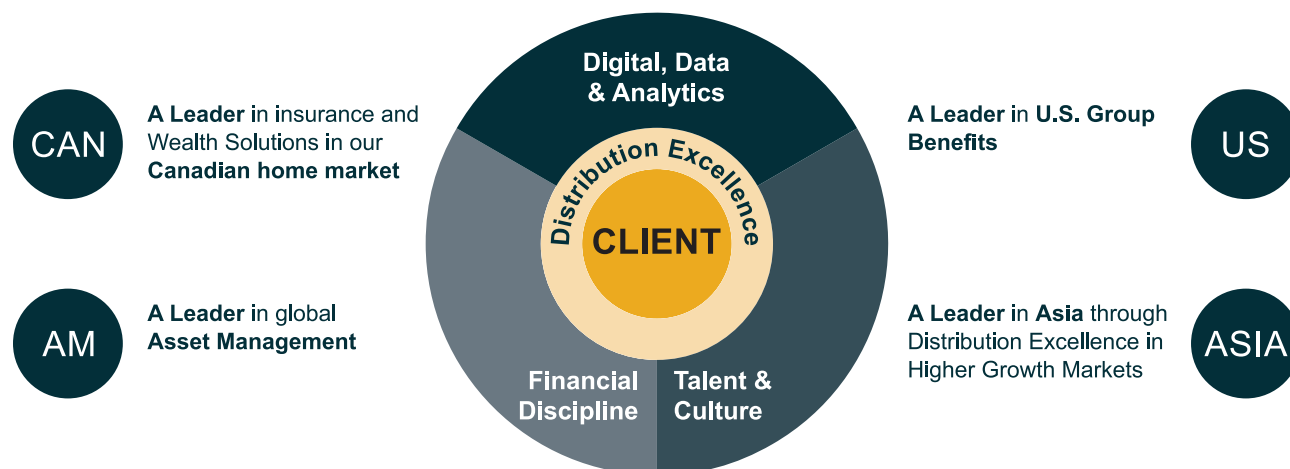
Our Purpose is to help our Clients achieve lifetime financial security and live healthier lives.

Our ambition is to be one of the best insurance and asset management companies in the world. To achieve this, across each of the four pillars of our business we aim to have:

- Top quartile Client scores relative to our competitors
- Each pillar of our business be viewed as one of the best in its market
- Top quartile total shareholder return
- A disproportionate share of top talent, wrapped in an empowering culture

1. Strategy

We aim to provide outstanding value to our Clients. Our strategy places the Client at the centre of everything we do. We believe our Client for life strategy and purpose, as described below, will allow us to gain a distinct competitive advantage to achieve our goal to be a leader in each of our four pillars.



Our Client Strategy

Our Client-centric strategy has five key areas of focus that we are pursuing across each of our four pillars. These areas of focus define how we compete in our markets, extend our competitive advantages, fulfill our purpose and support our ambition to be one of the best insurance and asset management companies in the world.

Client: Our Clients are at the centre of everything we do and we are focused on building lasting and trusted Client relationships by providing quality products and services that deliver on our Purpose. We believe this allows us to maximize the value we provide our Clients, and leads to better business outcomes for Sun Life Financial. We achieve this by:

- making it easier to do business with us
- being more proactive in contacting and engaging with our Clients
- delivering consistently superior Client service

Distribution Excellence: Our Clients work with high-quality distribution partners who put them at the centre of what they do. Our distribution partners will engage Clients where, when and how they wish, in a personalized and relevant way. We continue to invest in our distribution capabilities, through digital channels and by enabling our advisors, agents, partners and brokers to deliver great Client experiences and focus on meeting Client needs.

Digital, Data & Analytics: Our Digital, Data & Analytics capabilities are critical to both delivering value to our Clients and for efficiency and effectiveness, while respecting our Clients' privacy. As consumer preferences evolve and technological advancements enable new possibilities and services, Sun Life Financial is investing in new capabilities across our businesses to reach our Clients more effectively, drive efficiencies and explore new business opportunities. Our focus in these areas is to:

- digitize current processes and interactions
- be more proactive, predictive and personalized with our Clients
- build and deploy new digital business models

Financial Discipline: Our continued financial and risk management prudence, efficient use of capital and strong execution will support our medium-term financial objectives and also support us in meeting our aim of top quartile total shareholder returns while maintaining a preferred risk and capital profile. Specific areas of focus are to:

- Deliver strong earnings growth and disciplined expense management to support the enterprise's medium-term objectives.
- Create a culture of accountability, purpose and passion for long-term Client and business value embodied by all employees, including a strong focus on efficient use of resources to drive top and bottom line growth.

Talent and Culture: Delivering on our strategy will require that we maintain our focus on attracting, retaining and developing the best talent, while also continuing to evolve our talent and culture to manage the increasing pace of change. Specifically, our talent goals are to continue to:

- Attract a disproportionate share of top talent across our geographies, wrapped in an empowering culture.
- Build on our high performance culture and support and reward our diverse, talented workforce.
- Ensure that our focus on our Clients becomes deeply embedded in our unique and inclusive culture.
- Remain committed to the highest standards of business ethics and good governance.

Our four pillars

Our four pillar approach defines the businesses and markets in which we compete. In each of these pillars, we focus on creating value for our Clients and shareholders in businesses that have strong growth prospects, favourable return on equity ("ROE") and strong capital generation in attractive global markets.

Currently, in our four pillars we are:

A leader in insurance and wealth solutions in our Canadian home market

- a provider of products and services to over six million Canadians via our Group and Individual businesses that deliver value to our Clients
- the largest provider of benefits and pensions in the workplace
- providing a wide range of wealth and insurance products to individuals via retail channels, including our leading Career Sales Force

A leader in U.S. Group Benefits

- a provider of group life, disability, dental and vision insurance products, as well as a suite of voluntary benefits products that meet Client needs
- a market leader in Group Benefits, providing insurance solutions to employers and employees
- the largest independent provider of medical stop-loss insurance in the U.S.

A leader in global asset management

- a provider of investment products through MFS Investment Management ("MFS") and Sun Life Investment Management ("SLIM") that deliver superior value to Clients through traditional active asset management as well as liability driven investing ("LDI") and alternative asset classes:
 - MFS is a premier asset management firm offering a comprehensive selection of asset management products and services to retail and institutional investors around the world
 - SLIM is an institutional investment management business delivering customized LDI, alternative fixed income and real estate solutions

A leader in Asia through distribution excellence in higher growth markets

- a provider of individual life and health insurance that delivers Client value in all markets
- a provider, in select markets, of asset management and group retirement products and services
- operating across seven markets: Philippines, Hong Kong, Indonesia, Vietnam, Malaysia, India and China
- among the global leaders in providing life insurance solutions to international high net worth Clients

Underpinning our strategy is an enduring commitment to Sustainability

Sun Life Financial's focus on advancing sustainability - centred around a vision of building sustainable, healthier communities for life - is an important focus for our Company and is essential to our overall business success.

We define sustainability as taking accountability for our social, environmental, economic and governance impacts, risks and opportunities, in ways that help to ensure our long-term ability to deliver value to our Clients, employees, shareholders and communities.

Our company-wide sustainability strategy, approved by the Board of Directors, focuses on four key areas within which we continue to deepen our commitment and strengthen our practices:

- **Organizational resilience:** We cultivate an organization that is competitive, forward-thinking, resilient and sustainable for the long term, so we can continue to meet the needs of our Clients, who are at the centre of all that we do.
- **Environmental responsibility:** We are accountable for the impact of our operations on the environment, so we are consistently taking steps to measure, manage and reduce that impact.
- **Community wellness:** We believe that by actively supporting the communities in which we live and work, we can help to build a positive environment for our Clients, employees, advisors and shareholders.
- **Governance and risk management:** We believe a well-run organization contributes to a stable operating platform for the Company, and positions us to meet our obligations to stakeholders. Proactive risk management and a strong risk culture are essential to our long-term success.

For additional information on our sustainability strategy, refer to our latest Sustainability Report, which can be found at www.sunlife.com.

2. Financial Objectives

The Company has outlined the following medium-term financial objectives:

Measure ⁽¹⁾	Medium-term financial objectives	Four-year average ⁽²⁾	2018 results
Underlying EPS growth Growth in EPS reflects the Company's focus on generating sustainable earnings for shareholders.	8%-10%	13%	17%
Underlying ROE ROE is a significant driver of shareholder value and is a major focus for management across all businesses.	12%-14%	13.0%	14.2%
Dividend payout ratio Payout of capital serves shareholder value, based on underlying net income.	40%-50%	41%	39%

(1) Underlying earnings per share ("EPS"), underlying ROE and the dividend payout ratio are non-IFRS financial measures. See section L - Non-IFRS Financial Measures. The dividend payout ratio represents the ratio of common shareholders' dividends to underlying net income. See section I - Capital and Liquidity Management - Capital in this document for further information regarding dividends.

(2) Underlying EPS growth is calculated on a four-year compound annual growth rate. Underlying ROE and Dividend payout ratio are based on a four-year average of 2015 - 2018.

We have performed well against our medium-term financial objectives. Although considered reasonable by the Company, we may not be able to achieve our medium-term financial objectives as our assumptions may prove to be inaccurate. Accordingly, our actual results could differ materially from our medium-term financial objectives as described above. Our medium-term financial objectives do not constitute guidance. Our medium-term financial objectives are forward-looking non-IFRS financial measures and additional information is provided in this MD&A in the section O - Forward-looking Statements - Medium-Term Financial Objectives.

3. Acquisitions

The following developments occurred since January 1, 2018. Additional information concerning acquisitions and dispositions is provided in our 2018 Annual Consolidated Financial Statements.

In December 2018, we entered into an agreement to merge Bentall Kennedy, our North American real estate and property management firm, with GreenOak Real Estate ("GreenOak"), a global real estate investment firm. Sun Life Financial will acquire a majority stake in the combined Bentall Kennedy and GreenOak entity that will be part of SLIM. The transaction is subject to regulatory approvals and customary closing conditions and is expected to close in the first half of 2019. For additional information, refer to Note 3 of our 2018 Annual Consolidated Financial Statements.

In January 2018, we acquired Excel Funds Management Inc. and Excel Investment Counsel Inc. (collectively, "Excel Funds"). Excel Funds is an award-winning Canadian investment manager specializing in emerging markets funds with approximately \$800 million in assets under management at the time of acquisition. The acquisition is expected to help accelerate the growth of Sun Life Global Investments through new emerging markets offerings and add Excel Funds' exchange-traded funds to its capabilities.

On October 3, 2017, we completed the first stage of our acquisition of the pension business of FWD Life Insurance Company (Bermuda) Limited ("FWD") for total consideration of approximately \$105 million. The first stage included the acquisition of the Mandatory Provident Fund ("MPF") business and the commencement of an exclusive 15-year distribution agreement with FWD that allows Sun Life Hong Kong Limited to distribute its pension products through FWD's agency force in Hong Kong. The completion of the second and final stage of the transaction involves the purchase of the Occupational Retirement Schemes Ordinance business of FWD, and is expected to close by the end of 2019, subject to the receipt of regulatory approvals and satisfaction of customary closing conditions.

C. Financial Summary

(\$ millions, unless otherwise noted)		2018	2017	2016
Profitability				
Net income (loss)				
Reported net income (loss)		2,522	2,149	2,485
Underlying net income (loss) ⁽¹⁾		2,947	2,546	2,335
Diluted EPS (\$)				
Reported EPS (diluted)		4.14	3.49	4.03
Underlying EPS (diluted) ⁽¹⁾		4.86	4.15	3.80
Reported basic EPS (\$)		4.16	3.51	4.05
Return on equity (%)				
Reported ROE ⁽¹⁾		12.1%	10.7%	13.0%
Underlying ROE ⁽¹⁾		14.2%	12.7%	12.2%
Growth				
Sales				
Insurance sales ⁽¹⁾		3,189	3,042	2,758
Wealth sales ⁽¹⁾		136,702	145,314	138,319
Value of new business⁽¹⁾		1,154	968	860
Premiums and deposits				
Net premium revenue		18,642	15,281	15,048
Segregated fund deposits		11,553	10,858	11,550
Mutual fund sales ⁽¹⁾		84,202	87,515	84,728
Managed fund sales ⁽¹⁾		38,903	44,093	40,270
ASO premium and deposit equivalents ⁽¹⁾⁽²⁾		6,808	6,933	6,863
Total premiums and deposits⁽¹⁾		160,108	164,680	158,459
Assets under management⁽¹⁾				
General fund assets		168,765	162,720	161,071
Segregated fund assets		103,062	106,392	97,167
Mutual fund assets, managed fund assets and other AUM ⁽¹⁾		679,316	705,673	645,037
Total AUM⁽¹⁾		951,143	974,785	903,275
Financial Strength				
LICAT ratios⁽³⁾⁽⁴⁾				
Sun Life Financial Inc.		144%	n/a	n/a
Sun Life Assurance ⁽⁵⁾		131%	n/a	n/a
Financial leverage ratio⁽¹⁾		21.2%	23.6%	25.2%
Dividend⁽⁶⁾				
Dividend yield ⁽⁷⁾		3.7%	3.6%	3.7%
Dividend payout ratio ⁽¹⁾		39%	42%	43%
Dividends per common share (\$)		1.905	1.745	1.620
Capital				
Subordinated debt and innovative capital instruments ⁽⁸⁾		3,738	4,136	4,534
Participating policyholders' equity		864	650	412
Total shareholders' equity		23,706	22,321	21,956
Total capital		28,308	27,107	26,902
Average common shares outstanding (millions)		606	613	613
Closing common shares outstanding (millions)		598.5	610.5	613.6

(1) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

(2) Administrative Services Only ("ASO").

(3) Life Insurance Capital Adequacy Test ("LICAT") ratio.

(4) LICAT ratios are not applicable before January 1, 2018; we previously used the Minimum Continuing Capital and Surplus Requirements ("MCCSR") guideline, the former capital regulatory guideline.

(5) Sun Life Assurance is SLF Inc.'s principal operating life insurance subsidiary.

(6) See section I - Capital and Liquidity Management - Capital in this document for further information regarding dividends.

(7) Dividend yield is calculated on dividends per common share paid divided by the daily annual average share price for the year.

(8) Innovative capital instruments consist of Sun life Exchangeable Capital Securities ("SLECS") which qualify as capital for Canadian regulatory purposes. However, under IFRS they are reported as senior debentures in the Consolidated Financial Statements. For additional information, see the section I - Capital and Liquidity Management - Capital in this document.

D. Profitability

2018 vs. 2017

The following table reconciles our reported net income and underlying net income. The table also sets out the impact that other notable items had on our reported net income and underlying net income in 2018 and 2017. All factors discussed in this document that impact our underlying net income are also applicable to reported net income.

(\$ millions, after-tax)	2018	2017
Reported net income	2,522	2,149
Market related impacts ⁽¹⁾	(188)	(7)
Assumption changes and management actions ⁽¹⁾⁽²⁾	(155)	81
Other adjustments ⁽¹⁾	(82)	(220)
U.S. tax reform ⁽²⁾	—	(251)
Underlying net income⁽³⁾	2,947	2,546
Reported ROE⁽³⁾	12.1%	10.7%
Underlying ROE⁽³⁾	14.2%	12.7%
Experience related items ⁽⁴⁾		
Impact of investment activity on insurance contract liabilities	135	86
Mortality	(6)	70
Morbidity	51	25
Credit	72	74
Lapse and other policyholder behaviour	(49)	(49)
Expenses ⁽⁵⁾	(62)	(49)
Other	90	(60)

(1) See section L - Non-IFRS Financial Measures in this document for a breakdown of components within this adjustment.

(2) ACMA in 2017 excludes the \$(288) million change that is included in U.S. tax reform, shown separately.

(3) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

(4) Experience related items reflect the difference between actual experience during the reporting period and best estimate assumptions used in the determination of our insurance contract liabilities.

(5) In 2018, Expense experience has been revised to exclude certain project spending, which is now presented in Other. Prior periods have been conformed to this presentation.

Our reported net income increased to \$2,522 million for 2018 compared to \$2,149 million in 2017, which primarily reflects the \$251 million charge in 2017 related to the enactment of the U.S. tax reform. The increase also includes lower fair value adjustments on MFS share-based payment awards and acquisition, integration and restructuring charges, partially offset by the unfavourable impact of ACMA and market related impacts. Underlying net income growth of 16% to \$2,947 million was driven by the effect of the lower income tax rate in the U.S., growth in the business, interest on par seed capital⁽¹⁾, investment experience, favourable morbidity experience and favourable other experience, partially offset by unfavourable mortality experience.

i. Market related impacts

Market related impacts in 2018 compared to 2017 were largely driven by unfavourable equity impacts partially offset by net interest rate impacts that included the favourable impact of credit spreads. Market related impacts were unfavourable in SLF Canada and SLF Asia due to equity impacts, unfavourable in SLF U.K. as a result of positive net interest rate impacts and net interest rate impacts were favourable in SLF Canada and SLF U.S.

ii. Assumption changes and management actions

Due to the long-term nature of our business, we make certain judgments involving assumptions and estimates to value our obligations to policyholders. The valuation of these obligations is recorded in our financial statements as insurance contract liabilities and investment contract liabilities and requires us to make assumptions about equity market performance, interest rates, asset default, mortality and morbidity rates, lapse and other policyholder behaviour, expenses and inflation and other factors over the life of our products.

We review assumptions each year, generally in the third quarter, and revise these assumptions if appropriate. We consider our actual experience in current and past periods relative to our assumptions as part of our annual review.

During 2018, the net impact of assumption changes and management actions ("ACMA") resulted in a decrease of \$155 million to reported net income, compared to an increase of \$81 million in 2017 (which excluded the impact of the U.S. tax reform).

⁽¹⁾ In the first quarter of 2018, the seed capital that was transferred into the participating account at demutualization was transferred into the shareholder account, along with accrued investment income. The results include income of \$110 million of which \$75 million was in SLF Canada and \$35 million was in SLF U.S.

Assumption Changes and Management Actions by Type

The following table sets out the impact of ACMA on our net income in 2018.

2018	Full year	
(\$ millions, after-tax)	Impact on net income ⁽¹⁾	Comments
Mortality/morbidity	308	Updates to reflect mortality/morbidity experience in all jurisdictions. The largest items were favourable mortality in SLF Asia International, SLF Canada Group Retirement Services, and SLF U.K.
Lapse and other policyholder behaviour	(454)	Updates to reflect lapse and other policyholder behaviour experience in all jurisdictions. The largest items, which all had unfavourable impacts, were updated policyholder assumptions in SLF U.S. and SLF Asia International.
Expenses	(11)	Updates to reflect expense experience in all jurisdictions.
Investment returns	(14)	Updates to various investment related assumptions across the Company.
Model enhancements and other	16	Various enhancements and methodology changes across all jurisdictions. The largest items were a favourable change to the provisions in the SLF Canada and SLF U.S. participating accounts, partially offset by a strengthening of reinsurance provisions in SLF U.S.
Total impact on net income⁽²⁾	(155)	

(1) ACMA is included in reported net income and is presented as an adjustment to arrive at underlying net income.

(2) In this table, ACMA represent the shareholders' net income impact (after-tax) including management actions. In Note 10.A of our Annual Consolidated Financial Statements, the impact of method and assumptions changes represents the change in shareholder and participating policyholder insurance contract liabilities net of reinsurance assets (pre-tax) and does not include management actions. Further information can be found in section L - Non-IFRS Financial Measures in this document.

Additional information on estimates relating to our policyholder obligations, including the methodology and assumptions used in their determination, can be found in this MD&A under the section M - Accounting and Control Matters - Critical Accounting Policies and Estimates and in Note 10 in our 2018 Annual Consolidated Financial Statements.

iii. Other adjustments

Other adjustments in 2018 decreased reported net income by \$82 million, compared to \$220 million in 2017. The change was driven by lower fair value adjustments on MFS's share-based payment awards resulting in a favourable impact of \$76 million, a favourable impact of \$41 million from reduced acquisition, integration and restructuring costs in 2017, which included the 2017 restructuring charge, and the improved impact of certain hedges that do not qualify for hedge accounting.

iv. U.S. tax reform

The U.S. Tax Cuts and Jobs Act ("U.S. tax reform") legislation signed into law on December 22, 2017, which took effect on January 1, 2018, included a reduction to the U.S. corporate tax rate from 35% to 21% for tax years beginning after 2017, and a number of base broadening measures including provisions limiting the deductibility of certain payments to related foreign taxpayers. Interpretive guidance on the base broadening provisions was issued by the U.S. Treasury late in 2018, however it is in the form of Proposed Regulations and is subject to change.

As a result of this legislation, the Company recorded a net charge of \$251 million (\$444 million pre-tax) in the fourth quarter of 2017. This reflected an after-tax charge of \$288 million (\$444 million pre-tax) to ACMA, and a one-time charge on the deemed repatriation of foreign earnings of \$46 million. These are partially offset by a benefit of \$83 million⁽¹⁾ relating to the revaluation of deferred tax balances from 35% to 21%.

v. Experience related items

Experience related items in 2018 compared to 2017 reflected favourable impacts of other experience, including interest on par seed capital and investment related experience in International, impacts of investment activity on insurance contract liabilities, and morbidity experience, partially offset by unfavourable mortality experience.

vi. Income taxes

For 2018, our effective tax rates on reported and underlying net income⁽²⁾ were 17.0% and 17.2%, respectively, compared to 10.8% and 20.5%, respectively, for 2017. Our effective tax rate on underlying net income for 2018 is within our expected range. Our effective tax rate on reported net income for 2017 was most notably impacted by higher reported net income in jurisdictions with lower statutory income tax rates and losses in jurisdictions with higher statutory income tax rates, by U.S. tax reform, ACMA in SLF U.S., as well as the finalization of prior years' tax filings, which resulted in an unusually low effective tax rate on a reported basis for 2017. Our effective tax rate on underlying net income for 2017 was within our pre-2018 expected range of 18% to 22%.

Our expected underlying tax rate range for 2018 and future years is revised to 15% to 20% as a result of U.S. tax reform. Our statutory tax rate is normally reduced by various tax benefits, such as lower taxes on income subject to tax in foreign jurisdictions, a range of tax exempt investment income, and other sustainable tax benefits that are expected to decrease our effective tax rate. The 15% to 20% range is based on our current understanding of the base broadening measures referred to in section iv. above.

(1) Excludes \$(30) million relating to the net impact on deferred tax balances attributable to participating policyholders.

(2) Our effective income tax rate on underlying net income is calculated using underlying net income and income tax expense associated with underlying net income, which excludes amounts attributable to participating policyholders.

vii. Impact of foreign exchange rates

We have operations in many markets worldwide, including Canada, the United States, the United Kingdom, Ireland, Hong Kong, the Philippines, Japan, Indonesia, India, China, Australia, Singapore, Vietnam, Malaysia and Bermuda, and generate revenues and incur expenses in local currencies in these jurisdictions, which are translated to Canadian dollars.

Items impacting our Consolidated Statements of Operations are translated into Canadian dollars using average exchange rates for the respective period. For items impacting our Consolidated Statements of Financial Position, period end rates are used for currency translation purposes.

The following table provides the foreign exchange rates for the U.S. dollar, which is usually our most significant foreign exchange impact, over the past three quarters and two years.

Exchange rate	Quarterly				Full year	
	Q4'18	Q3'18	Q2'18	Q1'18	2018	2017
U.S. Dollar - Average	1.321	1.306	1.290	1.264	1.295	1.298
U.S. Dollar - Period end	1.364	1.290	1.313	1.289	1.364	1.258

In general, our net income benefits from a weakening Canadian dollar and is adversely affected by a strengthening Canadian dollar as net income from the Company's international operations is translated back to Canadian dollars. Conversely, in a period of losses, the weakening of the Canadian dollar has the effect of increasing losses in foreign jurisdictions. The relative impact of foreign exchange in any given period is driven by the movement of foreign exchange rates as well as the proportion of earnings generated in our foreign operations. We generally express the impact of foreign exchange on net income on a year-over-year basis.

During the year 2018, our reported net income and underlying net income decreased by \$6 million and increased by \$8 million, respectively, as a result of the impact of the movement of the Canadian dollar in 2018 relative to the average exchange rates in 2017.

E. Growth

1. Sales and Value of New Business

(\$ millions)	2018	2017	2016
Insurance sales⁽¹⁾			
SLF Canada	984	1,125	950
SLF U.S. ⁽²⁾	1,307	1,106	1,053
SLF Asia ⁽²⁾	898	811	755
Total insurance sales	3,189	3,042	2,758
Wealth sales⁽¹⁾			
SLF Canada	15,286	14,976	13,200
SLF Asia	10,101	13,056	8,849
Total wealth sales excluding SLF Asset Management	25,387	28,032	22,049
SLF Asset Management sales ⁽¹⁾	111,315	117,282	116,270
Total wealth sales	136,702	145,314	138,319
Value of New Business⁽¹⁾ ("VNB")	1,154	968	860

(1) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

(2) Effective January 1, 2018, we transferred our International business unit from SLF U.S. to SLF Asia, and comparative figures in 2017 have been changed to conform with the current year presentation.

Total Company insurance sales were \$3.2 billion in 2018, compared to \$3.0 billion in 2017.

- SLF Canada insurance sales were down, following a strong first quarter in 2017 in individual insurance sales as a result of tax legislation and product design changes. Sales in Group Benefits ("GB") decreased 13% compared to 2017 due to several large case sales in 2017.
- SLF U.S. insurance sales increased, driven by strong growth in both employee benefits and medical stop-loss.
- SLF Asia insurance sales were higher, driven primarily by sales growth in the Philippines, India and Hong Kong, partially offset by lower sales in International due to the competitive environment and market volatility, and the unfavourable currency impact of \$19 million from the strengthening Canadian dollar.

Total Company wealth sales were \$136.7 billion in 2018, compared to \$145.3 billion in 2017.

- SLF Canada wealth sales increased, driven by continued growth in individual wealth. Group Retirement Services ("GRS") sales were in line with 2017.
- SLF Asia wealth sales were lower as a result of decreased mutual fund sales in India due to market volatility and the Philippines due to strong money market sales through a bank relationship in 2017, and the unfavourable currency impact of \$314 million from the Canadian dollar, partially offset by growth in MPF sales in Hong Kong.

- SLF Asset Management sales decreased, due to lower managed fund sales in both MFS and SLIM, and a reduction of \$0.2 billion from the currency impact of the strengthening Canadian dollar, partially offset by increased mutual fund sales in MFS.

Total Company VNB was \$1,154 million in 2018, up 19% compared to 2017, driven by higher insurance sales in the U.S. and Asia, higher wealth sales in Canada, and overall improved sales mix with higher profitability.

2. Premiums and Deposits

Premiums and deposits were \$160.1 billion in 2018, compared to \$164.7 billion in 2017, primarily attributable to lower fund sales, partially offset by increased net premium revenue, and currency impact of \$0.7 billion from the change in the Canadian dollar. Adjusted premiums and deposits of \$161.4 billion in 2018 decreased \$6.3 billion compared to 2017, largely driven by lower fund sales, partially offset by net premium revenue, and higher segregated fund deposits.

(\$ millions)	2018	2017	2016
Premiums and Deposits			
Net premium revenue	18,642	15,281	15,048
Segregated fund deposits	11,553	10,858	11,550
Mutual fund sales ⁽¹⁾	84,202	87,515	84,728
Managed fund sales ⁽¹⁾	38,903	44,093	40,270
ASO premium and deposit equivalents ⁽¹⁾	6,808	6,933	6,863
Total premiums and deposits ⁽¹⁾	160,108	164,680	158,459
Adjusted premiums and deposits ⁽²⁾	161,371	167,706	158,597

(1) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

(2) Represents a non-IFRS financial measure that adjusts premiums and deposits for the impact of Constant Currency Adjustment and Reinsurance in SLF Canada's GB Operations Adjustment as described in section L - Non-IFRS Financial Measures.

Net life, health and annuity premiums were \$18.6 billion in 2018, up \$3.4 billion from 2017. The change was driven by higher premiums in GB and GRS in SLF Canada, partially offset by lower premiums in International in SLF Asia. The strengthening of the Canadian dollar relative to average exchange rates in 2017 decreased net premiums by \$38 million.

Segregated fund deposits were \$11.6 billion in 2018, compared to \$10.9 billion in 2017. The change was largely driven by increases in GRS and individual wealth in SLF Canada.

Sales of mutual funds were \$84.2 billion in 2018, compared to \$87.5 billion in 2017, primarily due to decreased sales in India and the Philippines in SLF Asia and the currency impact from the change in the Canadian dollar. The change of the Canadian dollar relative to average exchange rates in 2017 decreased mutual fund sales by \$0.5 billion.

Sales of managed funds were \$38.9 billion in 2018, down \$5.2 billion from \$44.1 billion in 2017, primarily due to decreased sales in MFS and SLIM, partially offset by increased sales in Hong Kong in SLF Asia. The change of the Canadian dollar relative to average exchange rates in 2017 decreased managed fund sales by \$0.1 billion.

ASO premium and deposit equivalents for 2018 decreased \$0.1 billion from 2017, primarily attributable to decreases in Hong Kong in SLF Asia, partially offset by GRS and GB in SLF Canada.

3. Assets Under Management

AUM consist of general funds, segregated funds and other AUM. Other AUM includes mutual funds and managed funds, which include institutional and other third-party assets managed by the Company.

(\$ millions)	2018	2017	2016
Assets under management			
General fund assets	168,765	162,720	161,071
Segregated fund assets	103,062	106,392	97,167
Mutual fund assets, managed fund assets and other AUM ⁽¹⁾	679,316	705,673	645,037
Total AUM ⁽¹⁾	951,143	974,785	903,275

(1) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

AUM were \$951.1 billion as at December 31, 2018, compared to AUM of \$974.8 billion as at December 31, 2017. The decrease in AUM of \$23.7 billion between December 31, 2018 and December 31, 2017 resulted primarily from:

- unfavourable market movements on the value of mutual funds, managed funds and segregated funds of \$52.1 billion; and
- net outflows from mutual, managed and segregated funds of \$34.5 billion; partially offset by
- an increase of \$57.9 billion from the weakening of the Canadian dollar relative to exchange rates at the end of the fourth quarter of 2017; and
- other business growth and activity of \$5.0 billion.

The net outflow of mutual, managed and segregated funds of \$34.5 billion in 2018 was predominantly driven by net outflows from MFS of \$38.5 billion, which were partially offset by net inflows \$2.0 billion from SLF Canada, \$1.7 billion from SLF Asia and \$1.2 billion from SLIM.

General fund assets were \$168.8 billion as at December 31, 2018, up \$6.0 billion from December 31, 2017. The increase in general fund assets was primarily attributable to:

- (i) business growth of \$4.2 billion; and
- (ii) an increase of \$5.2 billion from the weakening of the Canadian dollar against foreign currencies compared to the prior period exchange rates; partially offset by
- (iii) a decrease of \$3.4 billion from the change in value of fair value through profit or loss ("FVTPL") assets and liabilities.

Segregated fund assets were \$103.1 billion as at December 31, 2018, compared to \$106.4 billion as at December 31, 2017. The decrease in segregated fund assets was primarily due to unfavourable market movement of \$4.3 billion, partially offset by net sales of \$0.7 billion, and the currency impact from the weakening of the Canadian dollar of \$0.6 billion.

Mutual funds, managed funds and other AUM decreased to \$679.3 billion, \$26.4 billion lower than as at December 31, 2017. The decrease was mainly driven by unfavourable market movements of \$44.4 billion and net outflows of \$35.3 billion, partially offset by \$52.1 billion of currency impact from the weakening of the Canadian dollar.

F. Financial Strength

	2018	2017	2016
LICAT ratio⁽¹⁾			
Sun Life Financial Inc.	144%	n/a	n/a
Sun Life Assurance	131%	n/a	n/a
Financial leverage ratio⁽²⁾	21.2%	23.6%	25.2%
Dividend			
Dividend payout ratio ⁽²⁾	39%	42%	43%
Dividends per common share (\$)	1.905	1.745	1.620
Capital (\$ millions)			
Subordinated debt	3,039	3,437	3,836
Innovative capital instruments ⁽³⁾	699	699	698
Equity			
Participating policyholders' equity and non-controlling interest	864	650	412
Preferred shareholders' equity	2,257	2,257	2,257
Common shareholders' equity	21,449	20,064	19,699
Total equity	24,570	22,971	22,368
Total capital	28,308	27,107	26,902

(1) LICAT ratios are not applicable before January 1, 2018.

(2) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

(3) Innovative capital instruments consist of Sun Life Exchangeable Capital Securities, and qualify as regulatory capital. However, under IFRS they are reported as Senior debentures in our Consolidated Financial Statements. For additional information, see section I - Capital and Liquidity Management - Capital in this document.

Life Insurance Capital Adequacy Test

OSFI has implemented a revised regulatory capital framework referred to as the Life Insurance Capital Adequacy Test in Canada effective January 1, 2018. The capital from the LICAT framework responds differently than the previous framework, MCCSR, to changes in a life insurer's risk profile and economic environment. LICAT measures the capital adequacy of an insurer using a risk-based approach and includes elements that contribute to financial strength through periods when an insurer is under stress as well as elements that contribute to policyholder and creditor protection wind-up.

SLF Inc. is a non-operating insurance company and is subject to the LICAT guideline. As at December 31, 2018, SLF Inc.'s LICAT ratio was 144%, which is well above OSFI's regulatory minimum ratio of 90%.

Sun Life Assurance, SLF Inc.'s principal operating life insurance subsidiary, is also subject to the LICAT guideline. As at December 31, 2018, Sun Life Assurance's LICAT ratio was 131%, well above OSFI's supervisory ratio of 100% and regulatory minimum ratio of 90%.

Capital

Our total capital consists of subordinated debt and other capital instruments, participating policyholders' equity and total shareholders' equity which includes common shareholders' equity and preferred shareholders' equity. As at December 31, 2018, our total capital was \$28.3 billion, up from \$27.1 billion as at December 31, 2017. The increase in total capital was primarily the result of common shareholders' net income of \$2,522 million and the foreign currency translation gain included in other comprehensive income (loss) ("OCI") of \$906 million, partially offset by the payment of \$1,147 million of dividends on common shares, common shares purchased under the normal course issuer bid of \$641 million detailed below, and the redemption of \$400 million of subordinated debentures detailed below.

We strive to achieve an optimal capital structure by balancing the use of debt and equity financing. The financial leverage ratio for SLF Inc., which includes the innovative capital instruments and preferred shares issued by SLF Inc. as part of debt for the purposes of this calculation, decreased to 21.2% as at December 31, 2018, compared with 23.6% as at December 31, 2017.

The legal entity, SLF Inc. (the ultimate parent company) and its wholly-owned holding companies had \$2,523 million in cash and other liquid assets as at December 31, 2018. Of this amount, \$1,547 million was held at SLF Inc. The remaining \$976 million of liquid assets were held by SLF Inc.'s wholly-owned holding companies, which are available to SLF Inc. without any regulatory restrictions. SLF Inc. and its wholly-owned holding companies had \$2,019 million in cash and other liquid assets as at December 31, 2017. The increase in cash and liquid assets in these holding companies in 2018 was primarily attributable to the dividends from the operating companies including Sun Life Assurance, which were partially offset by the payment of \$1,147 million of dividends on common shares, common shares purchased under the normal course issuer bid of \$641 million, and redemption of \$400 million of subordinated debentures. Liquid assets as noted above include cash and cash equivalents, short-term investments and publicly traded securities.

On January 30, 2018, SLF Inc. redeemed all of the outstanding \$400 million principal amount of Series 2008-1 Subordinated Unsecured 5.59% Fixed/Floating Debentures at a redemption price equal to the principal amount together with accrued and unpaid interest to that date.

Common Share Dividend Activity

SLF Inc. increased the dividend paid on its common shares in the second and fourth quarter of 2018 and paid total common shareholder dividends of \$1.905 per common share in 2018, compared to \$1.745 paid in 2017. In relation to the Canadian Dividend Reinvestment and Share Purchase Plan ("DRIP"), commencing with the dividends paid on March 31, 2016, common shares were acquired by the plan agent on the open market and no shares were issued from treasury in connection with the plan in 2016, 2017 or 2018.

Normal Course Issuer Bid

On August 14, 2018, SLF Inc. renewed its normal course issuer bid. This normal course issuer bid remains in effect until the earlier of August 13, 2019 and the date on which SLF Inc. has purchased an aggregate of 14.0 million common shares under the bid. Share purchases were as follows:

	Q4'18		2018	
	Common Shares Purchased ⁽¹⁾ (millions)	Amount (\$ millions)	Common Shares Purchased ⁽¹⁾ (millions)	Amount (\$ millions)
Bid announced August 2017 (expired August 13, 2018)	—	—	4.0	216
Bid announced August 2018	5.0	235	8.6	425
	5.0	235	12.6	641

(1) All of the common shares purchased under SLF Inc.'s normal course issuer bids during 2018 were subsequently cancelled.

Financial Strength Ratings

Independent rating agencies assign credit ratings to securities issued by companies and assign financial strength ratings to financial institutions such as Sun Life Assurance.

The financial strength ratings assigned by rating agencies are intended to provide an independent view of the creditworthiness and financial strength of a financial institution. Each rating agency has developed its own methodology for the assessment and subsequent rating of life insurance companies.

Rating agencies do not assign a financial strength rating for SLF Inc., however, credit ratings are assigned to the securities issued by SLF Inc. and its subsidiaries and are described in SLF Inc.'s AIF under the heading Security Ratings.

The following table summarizes the financial strength ratings for Sun Life Assurance as at January 31, 2019 and December 31, 2017.

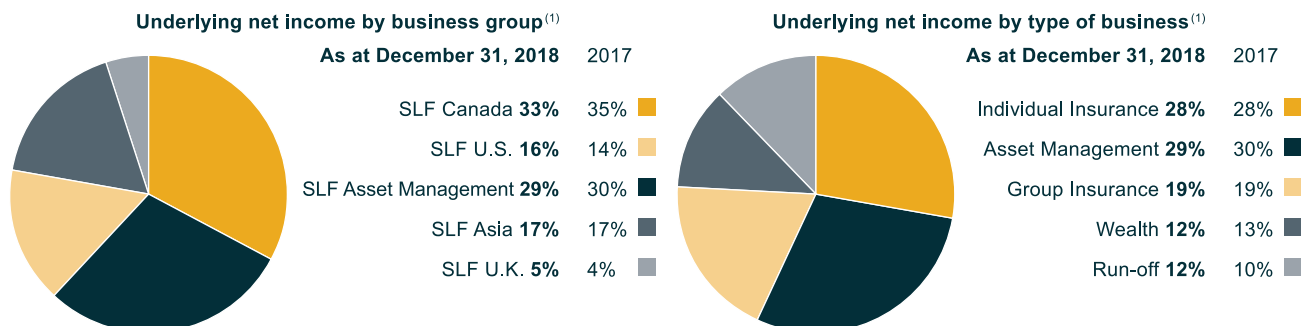
	A.M. Best	DBRS	Moody's	Standard & Poor's
January 31, 2019	A+	AA(low)	Aa3	AA-
December 31, 2017	A+	AA(low)	Aa3	AA-

Rating agencies took the following actions on the financial strength rating of Sun Life Assurance throughout 2018:

- April 6, 2018 - Standard and Poor's affirmed the financial strength rating with a positive outlook
- December 5, 2018 - DBRS affirmed the financial strength rating with a stable outlook
- December 14, 2018 - A.M. Best affirmed the financial strength rating with a stable outlook

G. Performance by Business Group

Sun Life Financial's business is well diversified across geographies and business types, supported by our four pillar strategy and our diversified offerings of insurance and wealth products.



(1) Excludes Corporate Support.

(\$ millions, unless otherwise noted)	2018	2017	2016
Reported net income (loss)			
SLF Canada	942	963	936
SLF U.S. ⁽¹⁾	52	(144)	217
SLF Asset Management	909	653	729
SLF Asia ⁽¹⁾	555	778	600
Corporate	64	(101)	3
Total reported net income (loss)	2,522	2,149	2,485
Underlying net income (loss)⁽²⁾			
SLF Canada	1,036	949	887
SLF U.S. ⁽¹⁾	514	376	284
SLF Asset Management	925	812	699
SLF Asia ⁽¹⁾	523	461	458
Corporate	(51)	(52)	7
Total underlying net income (loss)⁽²⁾	2,947	2,546	2,335

(1) Effective January 1, 2018, we transferred our International business unit from SLF U.S. to SLF Asia as described below, and comparative figures have been changed to conform with the current year presentation.

(2) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

1. SLF Canada

SLF Canada is a leading provider of insurance and wealth solutions in its home market, providing products and services that deliver value to over six million Canadians through our group and individual businesses. We are the largest provider of benefits and pensions in the workplace, and provide a wide range of products to individuals via retail channels.

Business Profile

Business Units

- Individual Insurance & Wealth
- Group Retirement Services
- Group Benefits

2018 Highlights

- Achieved record year with underlying net income exceeding \$1 billion and reaching leadership position in most markets.
- Maintained #1 position in workplace solutions including reaching over \$97 billion GRS assets under administration and \$10 billion in business in force in GB.
- Reached #1 position in individual insurance sales⁽¹⁾ culminating a significant continued momentum in premium growth.
- Continued retail wealth momentum contributing to firm level Sun Life Global Investments ("SLGI") assets reaching over \$20 billion and Sun GIF⁽²⁾ gross sales growing 10% over the prior year in an environment of market volatility.
- Our investment in, and strategic relationship with, Rise People Inc. will open up a range of new health services to many of our Clients and allow advisors to differentiate and expand their value proposition with a digital platform that simplifies administration and engages employees.
- Launched Lumino Health in the fourth quarter of 2018, Canada's premier network of health resources free to all Canadians, the first of its kind digital network that enables Canadians to find highly rated providers, compare costs and receive health tips, helping them to make informed health care decisions.
- Our highly rated app in Canada, my Sun Life, enables Clients to search and connect with 150,000 Client-rated, paramedical health care providers across Canada, click to call for appointment bookings, submit health claims, check investment balances, and click to connect with their financial advisor.
- For straight through electronic underwriting, which occurs for 25% of our individually underwritten applications compared to the industry average of 9%⁽³⁾, we are utilizing artificial intelligence to assist our underwriters in decision making for Client applications from our Career Sales Force ("CSF") channel.
- Named one of the "Top 25 Companies to work for in Canada" by LinkedIn.
- For the tenth year in a row, voted "Most Trusted Life Insurance Company" by Reader's Digest.
- For the second year in a row, received a perfect score on the LGBT Corporate Canadian Index (CCI) for our strong commitment in taking quantifiable actions to support the LGBTQ community.
- For the third year in a row, recognized as one of "Canada's Top Employers for Young People" in the editorial competition organized by the Canada's Top 100 Employers project.
- Received top marks from Forrester Research Inc.⁽⁴⁾ for the digital functionality of our life insurance business, earning top scores in both digital functionality and user experience.

Strategy and Outlook

As the leading provider of Group Benefits, the market leader in the Group Retirement market and the largest player in individual insurance⁽¹⁾ in the Canadian market, Sun Life Financial is a market leader in Canada. Going forward, we will continue to leverage our market leadership position across our core businesses and distribution networks, to deliver on our Purpose to help our Clients achieve lifetime financial security and live healthier lives. Our focus for our Canadian business will be to:

Put the Client at the centre of everything we do

- Continue transforming our business to a Client-centric organization adapted to the digital world.
- Enhance the Client experience by making it easier to do business with us and ensuring a seamless experience across all Business Units.
- Deliver an omni-channel experience, engaging Clients where, when and how they wish.
- Provide more proactive, personalized contact with our Clients, leveraging digital, data and analytics capabilities.
- Advance our Client advocacy work to deliver consistently superior Client service.

Extend market leadership in core businesses

- Continue to leverage the life, health and wealth-based CSF, with a focus on digital support complementing our traditional model to deliver holistic financial planning advice, helping our Clients achieve lifetime financial security and live healthier lives.
- Launch new and enhance existing products and services that continue to support our CSF and third party advisors in offering customized financial plans and life and health insurance solutions to our Clients.

(1) LIMRA Market Share as of Q3 2018 YTD

(2) Sun Life Guaranteed Investment Funds

(3) Munich Re's 2018 Individual Insurance survey

(4) The Forrester Life Insurance Wave Canadian Sales Websites Report for Q2 2018

- Extend our market leadership in the GB and GRS businesses where we have a high Client retention rate due to our industry leading technology, our total benefits offering and worksite advantage.
- Help GB Clients manage their organizational health from a cost and an employee wellness perspective by providing Integrated Health Insights reporting.
- Further leverage our worksite advantage to drive growth in our GB and GRS businesses.

Leverage digital, data and analytics, and artificial intelligence to develop new business models

- Continue our journey of digital transformation by the digitization of the Client and sponsor journey and leveraging data and analytics more aggressively to drive Client and business outcomes.
- Expand our Digital Benefits Assistant and Ella platforms, which deliver personalized, relevant advice to our Clients.
- Continue to develop and enhance our industry leading mobile platform, with the highest rated life insurance mobile app in Canada, making it easy and convenient for plan members to manage and use their pensions and benefits.
- Advance our new business area, Digital Health Solutions (“DHS”), including the launch of our national direct to consumer sub-brand “Lumino Health”.

Outlook

Shifting demographics, in particular the aging population and their need for financial security in retirement, and the shift in financial responsibility from governments and employers to individuals, including the potential for changing pharmacare responsibilities, are expanding the need for individuals to seek out effective life and health protection, and wealth advice. As a trusted market leader offering a full suite of solutions and advice, and a strong presence at the worksite and in communities across Canada, SLF Canada is well positioned to continue to help our Clients in the right way, at the right time.

The Canadian market is facing several headwinds that present both challenges and opportunities for our business. New digital disruptors are emerging, regulatory focus and changes are impacting all business segments and the competitive environment continues to apply additional pressure on achieving our objectives.

To address these headwinds, we are actively investing in innovative digital solutions to provide more proactive personalized contact with our Clients and ensure our Clients can interact with us in the channel of their choice with industry leading offerings. We will continue to adjust and adapt our plans to drive momentum across our core businesses and accelerate growth through our newest business area, DHS. DHS will continue to create digital solutions for both our Clients and providers that will result in lowering claim expenses to the benefit of our Clients and plan sponsors as well as helping Clients live healthier lives.

Business Units

Business	Description	Market position
<i>Individual Insurance & Wealth</i>	<ul style="list-style-type: none"> • Provides holistic advice to individuals to help them and their families achieve lifetime financial security, and live healthier lives, leveraging a broad suite of life and health insurance and investment products • Products distributed via multi-channel distribution model consisting of the CSF, third-party channels, including independent brokers and broker-dealers, and direct to consumer for certain products 	<ul style="list-style-type: none"> • 1st place market position by premiums within the individual life and health market⁽¹⁾ • 1st in fixed product sales⁽¹⁾ and 4th place market position by total wealth deposits and premiums⁽¹⁾
<i>Group Benefits</i>	<ul style="list-style-type: none"> • Provides group insurance products in Canada, including life, dental, extended health care, disability and critical illness, to employers of all sizes • Leverages our worksite advantage to offer voluntary benefits solutions to individual plan members, including post-employment life and health plans • Products distributed by sales representatives in collaboration with independent advisors, benefits consultants and the CSF 	<ul style="list-style-type: none"> • 1st place Group Benefits provider in Canada for the 9th consecutive year⁽²⁾
<i>Group Retirement Services</i>	<ul style="list-style-type: none"> • Provides defined contribution pension plans and defined benefit solutions in Canada to employers of all sizes • Leverages our worksite advantage to offer voluntary savings plans, including post-employment plans, to those members exiting their employer-sponsored plans • Defined Benefit Solutions offers an expanding range of innovative de-risking solutions for defined benefit pension plans • Products distributed by sales representatives in collaboration with a multi-channel distribution network of pension consultants and advisors 	<ul style="list-style-type: none"> • GRS ranked 1st in the defined contribution market based on total Capital Accumulation Plan assets for the 16th consecutive year⁽³⁾ and 1st in the Defined Benefit Solutions annuity sales market⁽¹⁾

(1) LIMRA Sales Market Share as of Q3 2018 YTD.

(2) Based on revenue for year ended December 2017 as published in 2018 Fraser Group Universe Report.

(3) Based on the 2017 Fraser Pension Universe Report.

Financial and Business Results

(\$ millions)	2018	2017	2016
Individual Insurance & Wealth	328	415	509
Group Benefits	282	332	307
Group Retirement Services	332	216	120
Reported net income	942	963	936
Market related impacts ⁽¹⁾	(117)	8	114
Assumption changes and management actions ⁽¹⁾	23	22	(60)
Other adjustments ⁽²⁾	—	(16)	(5)
Underlying net income ⁽³⁾	1,036	949	887
Reported ROE (%) ⁽³⁾⁽⁴⁾	13.8	12.6	12.0
Underlying ROE (%) ⁽³⁾⁽⁴⁾	15.2	12.4	11.4
Insurance sales ⁽³⁾	984	1,125	950
Wealth sales ⁽³⁾	15,286	14,976	13,200
Assets under management ⁽³⁾	177,436	176,417	165,252

(1) See section L - Non-IFRS Financial Measures in this document for a breakdown of components within this adjustment.

(2) Mainly comprised of Certain hedges in SLF Canada that do not qualify for hedge accounting. See section L - Non-IFRS Financial Measures in this document for a breakdown of components within this adjustment.

(3) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

(4) The adoption of LICAT impacted the capital allocation for SLF Canada. As a result, reported and underlying ROE's increased by approximately 1.6% and 1.8%, respectively, in the year ended 2018.

Profitability

Reported net income was \$942 million in 2018, compared to \$963 million in 2017. Underlying net income was \$1,036 million in 2018, compared to \$949 million in 2017.

Reported net income in 2018 compared to 2017 reflected unfavourable equity market impacts partially offset by favourable credit spread impacts and a favourable impact from certain hedges that do not qualify for hedge accounting. Underlying net income in 2018 compared to 2017 reflected the interest on par seed capital, business growth and favourable expense experience that resulted from ongoing expense management and lower incentive compensation costs, partially offset by less favourable impacts from investment experience.

Growth

Individual insurance sales of \$396 million were down 12% from the prior year, following a strong first quarter in 2017 in individual insurance sales as a result of tax legislation and product design changes. Sales in Group Benefits of \$588 million decreased 13% compared to 2017 due to several large case sales in 2017, partially offset by an increase in Health-Insured sales.

One of our key initiatives is to continue growing our individual wealth manufactured products, including SLGI mutual funds and Sun GIF⁽¹⁾ segregated funds. AUM for our wealth businesses, including GRS, was \$120.2 billion, a slight decrease from \$120.8 billion in 2017 due to capital markets movement, largely offset by positive net flows in wealth. SLF Canada wealth sales were \$15.3 billion in 2018, compared to \$15.0 billion in 2017. Individual wealth sales of \$6.3 billion were up 6% in 2018 compared to 2017, driven by continued growth in our wealth manufactured⁽²⁾ products, including SLGI mutual funds and Sun GIF⁽¹⁾ segregated funds. GRS sales of \$9.0 billion were in line with 2017.

Profitability and Growth by Business Unit

Individual Insurance & Wealth

Individual Insurance & Wealth's reported net income was \$328 million in 2018, compared to \$415 million in 2017. Reported net income in 2018 compared to 2017 was primarily driven by lower equity markets, partially offset by interest on par seed capital and credit spreads.

Individual life and health insurance product sales decreased 12% from 2017 to \$396 million in 2018. As noted above, the decrease compared to 2017 was due to a strong first quarter in 2017 in individual insurance sales as a result of tax legislation and product design changes. Individual wealth product sales of \$6.3 billion reflect solid growth over 2017 results, in all wealth manufactured products⁽²⁾.

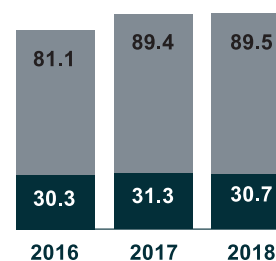
Group Benefits

Group Benefits reported net income was \$282 million in 2018, compared to \$332 million in 2017. Reported net income in 2018 compared to 2017 reflected an unfavourable ACMA adjustment in 2018 and an unfavourable insurance experience, partially offset by strong business growth and expense management compared to 2017.

Wealth - Asset Under Management

(\$ billions)

■ IW ■ GRS



(1) Sun Life Guaranteed Investment Funds.

(2) Represents individual wealth products developed by Sun Life Financial, which include SLGI mutual funds, Sun GIFs segregated funds, Guaranteed Investment Certificates, and Accumulation and Payout Annuities.

Group Benefits had sales of \$588 million, which decreased compared to \$674 million in 2017, primarily due to large case sales in 2017, partially offset by an increase in Health- Insured sales. Group Benefits maintained the #1 market share position for overall revenue in Canada⁽¹⁾ with over \$10 billion in businesses in force, while continuing to focus on Client service and productivity.

Group Retirement Services

Group Retirement Services had reported net income of \$332 million in 2018, compared to \$216 million in 2017. Reported net income in 2018 compared to 2017 reflected a favourable ACMA adjustment and business growth.

Group Retirement Services sales of \$9.0 billion in 2018 were in line with sales of \$9.1 billion in 2017. Assets under administration of \$97.3 billion in 2018 were down from \$97.9 billion in 2017 due to markets, partially offset by favourable net flows.

2. SLF U.S.

SLF U.S. is one of the largest Group Benefits providers in the U.S. market, serving employees and their families at approximately 60,000 workplaces of all sizes across the country with employer-sponsored insurance products and solutions. In addition, our U.S. business manages an in-force block of more than 110,000 individual life insurance policies.

Business Profile

Business Units

- **Group Benefits**
- **In-force Management**

2018 Highlights

- Reached our highest total Group Benefits sales ever at US\$1.0 billion for the first time, an increase of 16% over 2017, and business-in-force of US\$4.0 billion as at December 31, 2018, up 4% over the previous year.
- Achieved an after-tax profit margin for Group Benefits for the full year of 6.7%, at the top of our target range, even after adjusting for the benefits of U.S. tax reform.
- Acquired Maxwell Health, an innovative insurtech start-up with an employee benefits platform that makes benefits and HR administration simple for employers and their employees.
- Created the FullscopeRMS brand to expand our suite of capabilities for industry partners, and introduced a turnkey medical stop-loss offering. FullscopeRMS grew from our successful Disability RMS business and offers solutions for disability, life, stop-loss and voluntary coverages.
- Grew our leading medical stop-loss presence in the marketplace, increasing our business in force by 16% in 2018, maintaining our position as the largest independent stop-loss provider in the U.S.
 - Advanced our efforts to help our self-funded employer Clients bend the cost curve on health care expenses.
 - We launched our first product in collaboration with Collective Health which fully integrates stop-loss into its advanced workforce health management platform.
 - Saved our stop-loss Clients millions of dollars in costs this year through our Clinical 360 program that combines clinical experts with data analytics.
- Continued to make progress on our integration of the acquired employee benefits business.
 - Achieved 95% of our targeted expense synergies and expect to reach our full target of \$100 million pre-tax run-rate synergies as planned in 2019.
 - Moved the final acquired product to Sun Life's portfolio, completing the integration of the product suite.
 - As of January 1, 2019, half of our employer Clients on the acquired business's platform have gone through conversion process to the Sun Life Financial platform and products. By the end of 2019, we project that 96% of the employer Clients on the acquired business platform will have gone through the conversion process.

Strategy and Outlook

In the U.S., our strategic direction includes continuing core strategies and pursuing new, strategic catalysts in adjacent markets to accelerate our growth and achieve our goal of building the best benefits company in the U.S. We are focused on growth opportunities driven by key market trends and unmet Client needs, including filling insurance coverage gaps for life, disability and voluntary coverages and helping to solve for rising health care costs.

Refining existing strategies to build our core business

We are continuing to execute on key priorities in our traditional Group markets including:

- Growing our National Accounts business by creating a magnetic Client experience, including improving onboarding and advancing absence management capabilities.
- Completing the planned conversion of our Clients from the acquired business platform to the integrated Sun Life platform.
- Continuing to grow our industry-leading medical stop loss business by providing superior expertise and solutions to help bend the medical cost curve.

⁽¹⁾ Based on revenue for year ended December 2017 as published in 2018 Fraser Group Universe Report.

- Growing our FullscopeRMS business with existing disability Clients, and through our new medical stop-loss solution for industry partners, along with life, voluntary and other expanded coverages based on the successful Disability RMS model.
- Deepening our Client focus in every facet of the business to provide a proactive and personal experience, including initiatives that use predictive analytics, simplified communications, superior, high-touch new-Client onboarding and enhanced digital capabilities.
- Building on our distribution excellence through enhanced support, education and insights for key brokers and benefits consultants to help them grow their businesses.
- Continuing to drive margin improvement through ongoing pricing discipline, expense management, claims management and premium growth.

Capitalizing on new, disruptive approaches for rapid growth

We are looking outside our traditional markets to drive sustainable, long-term growth and industry-leading margins by pursuing two new strategies. This work includes:

- Helping employers and members close insurance coverage gaps by making it easy to understand, select and value their benefits through solutions that include advanced technology and data analytics to deliver a more proactive, predictive and personalized experience.
- Building a suite of self-funded health plan services for employers who have an increasing need to share risk and control health care and pharmacy costs. This effort leverages our stop-loss expertise to increase the footprint of our market leading business and creates a significant opportunity for growth.

Optimizing the value of our in-force business

We continue to optimize the In-force Management business of individual insurance policies and will look to capitalize on our capabilities through:

- Service that meets the needs of our individual life insurance Clients.
- Opportunities to improve profitability.
- Effective risk and capital management.

Outlook

In the U.S., the Group market continues to grow at a steady pace as employers seek to offer competitive benefits in a currently tight labour market. In addition, the health insurance market, which we serve via medical stop-loss, is growing at a faster pace due to medical inflation and increasing demand. We see a growing insurance coverage gap as fewer Americans buy individual or employer-sponsored insurance. Health coverage is also becoming less affordable, which leaves fewer dollars available for other benefits. Our growth strategies incorporate these factors to help employees enroll in more coverages that close gaps at work and to help employers manage their health benefit costs.

Consolidation activity in the marketplace presents opportunities even as new participants might enter. With fewer traditional competitors, we see the potential for digital entrants which we are seizing as an opportunity via investments, partnerships and acquisitions.

A new emerging trend in the U.S. is paid family and medical leave legislation at both the state and federal levels. This may present an opportunity if private insurers are able to have a role in these government programs that generally mandate worker participation, or a risk if insurers are not allowed to take part as the programs may overlap with existing short-term disability coverage. Most early states adopting such laws have allowed private insurers to help employers comply with the statutes. We are in active discussions with U.S. lawmakers about the valuable role private insurers can play in these programs. We see a regulatory headwind in new federal and state cybersecurity and data privacy laws and regulations which could increase costs and compliance obligations. We are managing through careful monitoring of developments, utilization of our peer group network and the engagement of consultants where prudent.

Business Units

Business	Description	Market position
Group Benefits	<ul style="list-style-type: none"> • Provides group insurance products and services, including life, long-term and short-term disability, absence management, medical stop-loss, dental, vision and voluntary insurance such as accident and critical illness • Stop-loss insurance provides employers who self-insure their employee health plans with protection against large claims • Products distributed through more than 31,000 independent brokers and benefits consultants, supported by approximately 235 employed sales representatives • Serves approximately 60,000 employers in small, medium and large workplaces across the U.S. • FullscopeRMS, which includes Disability RMS, provides turnkey solutions for disability, life, stop-loss and voluntary coverages including product development, actuarial, underwriting, claim administration, risk management and distribution training 	<ul style="list-style-type: none"> • Largest independent stop-loss provider⁽¹⁾ • Largest turnkey disability provider⁽²⁾ • One of the largest preferred provider organization (“PPO”) dental networks with 125,000 unique dentists⁽³⁾ • Top ten group life and disability provider⁽⁴⁾
In-force Management	<ul style="list-style-type: none"> • Provides approximately 110,000 individual life insurance policies, primarily universal life and participating whole life insurance 	

(1) Based on 2017 National Association of Insurance Commissioners Accident and Healthy Policy Experience Report; excludes carriers who provide medical coverage.

(2) Based on 2017 National Association of Insurance Commissioners Accident and Health Policy Experience Report and DRMS market expertise.

(3) Based on September 2018 data from the NetMinder Report; based on unique dentist count.

(4) Based on LIMRA 2017 Annual U.S. Sales & In-Force Reports for group term life, group short-term disability and long-term disability insurance.

Financial and Business Results

(US\$ millions) ⁽¹⁾	2018	2017	2016
Group Benefits	217	140	73
In-force Management	(176)	(247)	90
Reported net income (loss)	41	(107)	163
Market related impacts	(21)	(44)	8
Assumption changes and management actions ⁽²⁾	(302)	(210)	(18)
Acquisition, integration and restructuring ⁽³⁾	(32)	(52)	(42)
U.S. tax reform ⁽²⁾	—	(90)	—
Underlying net income (loss) ⁽⁴⁾	396	289	215
Reported ROE (%)	1.5	(4.1)	6.5
Underlying ROE (%) ⁽⁴⁾	14.6	11.1	8.5
After-tax profit margin for Group Benefits (%) ⁽⁴⁾	6.7	5.0	3.5
Insurance sales ⁽⁴⁾	999	863	794
(C\$ millions)			
Reported net income (loss)	52	(144)	217
Underlying net income (loss) ⁽⁴⁾	514	376	284

(1) Effective January 1, 2018, we transferred our International business unit from SLF U.S. to SLF Asia, and comparative figures have been changed to conform with the current year presentation.

(2) ACMA in 2017 excludes the US\$(231) million (\$293) million change that is included in U.S. tax reform, shown separately.

(3) Acquisition, integration and restructuring amounts related to the acquisition costs of the U.S. employee benefits business acquired in 2016 and Maxwell Health acquired in 2018.

(4) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

Profitability

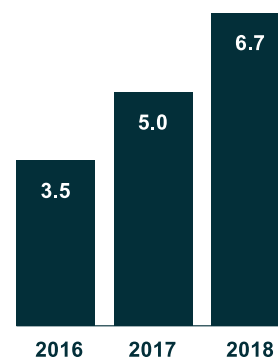
SLF U.S.'s reported net income was US\$41 million (\$52 million) in 2018, compared to reported net loss of US\$107 million (\$144 million) in 2017. Underlying net income was US\$396 million (\$514 million) in 2018, compared to US\$289 million (\$376 million) in 2017. The impact from the movement of the Canadian dollar in 2018 relative to average exchange rates in 2017 did not impact reported net income and decreased underlying net income by \$1 million.

Reported net income in 2018 compared to 2017 reflected the US\$90 million (\$114 million) charge in 2017 related to the enactment of the U.S. tax reform. The increase also reflected less unfavourable net interest rate impacts, and lower acquisition, integration, and restructuring costs as the integration of 2016 employee benefits acquisition was drawing to a successful close. These increases were partially offset by more unfavourable ACMA⁽¹⁾.

Underlying net income in 2018 compared to 2017 reflected the impact of lower income tax rates in the U.S., business growth, the interest on par seed capital, favourable morbidity experience and the impact of investment activity on insurance contract liabilities. These items were partially offset by unfavourable mortality experience.

The after-tax profit margin for Group Benefits⁽²⁾ was 6.7% as of the fourth quarter of 2018, compared to 5.0% as of the fourth quarter of 2017.

After-Tax Profit Margin for Group Benefits %



Growth

SLF U.S. insurance sales of US\$999 million increased by US\$136 million in 2018 compared to 2017, driven by growth in both employee benefits and medical stop-loss, up 16% and 15%, respectively.

Profitability and Growth by Business Unit

Group Benefits

Group Benefits' reported net income was US\$217 million in 2018, compared to US\$140 million in 2017. Reported net income in 2018 compared to 2017 reflected the lower income tax rate in the U.S., business growth, improved morbidity experience and a decrease in acquisition, integration and restructuring costs related to the acquisition of U.S. employee benefits businesses. These items were partially offset by unfavourable mortality experience and the less favourable impact of ACMA.

In-Force Management

In-force Management's reported net loss was US\$176 million in 2018, compared to net loss of US\$247 million in 2017. Reported net loss in 2018 compared to 2017 reflected improved market impacts related to changes in interest rates and credit spreads, interest on par seed capital, the lower income tax rate in the U.S. and more favourable impact on investing activity on insurance contract liabilities. These items were partially offset by an increase in unfavourable ACMA, and unfavourable mortality experience. Net income in 2017 also reflected the unfavourable impact of the U.S. tax reform.

(1) See section D - Profitability - 2018 vs. 2017 - ii. Assumption changes and management actions in our 2018 annual MD&A for details on ACMA in 2018.

(2) Based on underlying net income, on a trailing four quarters basis, and which is described in section L - Non-IFRS Financial Measures in this document.

3. SLF Asset Management

SLF Asset Management segment is comprised of MFS and SLIM. MFS is a premier global asset management firm which offers a comprehensive selection of financial products and services that deliver superior value and actively manages assets for retail and institutional investors around the world. SLIM is an institutional investment management business that delivers liability driven investing, alternative fixed income and real estate solutions to Clients, with operations in the U.S. and Canada.

Business Profile

Business Units

- MFS Investment Management
- Sun Life Investment Management

2018 Highlights

- We ended 2018 with \$649.7 billion in assets under management consisting of \$584.2 billion (US\$428.4 billion) from MFS and \$65.5 billion from SLIM.
- We announced our intention to merge Bentall Kennedy, our leading North American real estate and property management firm, with GreenOak, a global real estate firm with approximately \$15 billion (US\$11 billion) in assets under management as at December 31, 2018. We will acquire a majority stake in the combined Bentall Kennedy and GreenOak entity. This transaction, which is expected to close in 2019, will broaden our asset management pillar by expanding the capabilities of our alternatives manager, SLIM.
- Strong investment performance of MFS's U.S. retail mutual fund assets ranked in the top half of their Lipper categories based on three-, five- and ten-year performance, with 78%, 79% and 94%, respectively, as at December 31, 2018.
- Bentall Kennedy was ranked among the top five firms globally in the 2017 Global Real Estate Sustainability Benchmark rankings. This is the seventh year that the team at Bentall Kennedy has received this recognition.

Strategy and Outlook

The SLF Asset Management strategy is to design and deliver investment products through MFS and SLIM that will deliver growth in traditional active asset management as well as LDI and alternative asset classes. MFS competes primarily in the global institutional and U.S. retail markets. SLIM leverages Sun Life Financial's long-standing expertise in LDI and private asset class investments to offer customized investment solutions to third-party institutional investors.

MFS: Continue to deliver superior investment performance to our Clients while building a world class fixed income platform

MFS's active management strategy focuses on delivering value to our Clients over the long term. Our strong relative performance puts us in a competitive position over other asset managers:

- With increasing market volatility and a successful track record, MFS is well positioned to attract flows from all Client sectors that are seeking risk managed capital appreciation over the long term based on our disciplined, long-term approach.
- Going forward, MFS will strive to maintain margins in the top quartile of active managers' margins and grow net income while maintaining our commitment to provide long-term value to clients.

Expanding our sales focus to include fixed income while managing expenses will be the key driver of this objective.

Leverage the SLIM portfolio of companies to develop new products and expand distribution

SLIM is well positioned to take advantage of three key trends in our target markets:

- increased allocations to fixed income by pension funds looking to de-risk.
- out-sourcing of asset management by insurance companies.
- increased demand for alternatives due to low nominal interest rates.

Our strategy is to continue to deliver superior investment performance, expand our distribution capabilities and product lineup with offerings that leverage our existing investment capabilities, and continue to investigate potential acquisitions that fit our strategic targets.

Outlook

Going forward, we foresee consolidation in the asset management industry continuing. Regulatory changes are driving clients and platforms to consolidate assets into fewer investment firms. A market correction will accelerate consolidation of less skilled and sub-scale active managers, providing us with opportunities to establish new Client relationships. Within this context we believe that we have the scale, proven long-term track records and broad product portfolios to take advantage of this opportunity to gain market share.

Active asset management businesses are facing headwinds as demand for passive and alternative strategies grows faster than the overall market, as well as slow downward pressure on fees, from technology, new market entrants, regulation and increased transparency.

To address these headwinds, we will continue to position our active asset manager to serve the large pool of alpha-seeking assets in both the retail and institutional markets, bringing our scale, and proven track record to the service of our global Clients. We will leverage our data analytics capabilities to continue to improve our distribution capabilities. Approximately 20% of all global invested assets turn over each year, resulting in excess of \$15 trillion being reinvested. Even with some investors choosing a passive strategy, as a well-positioned and skilled active manager we will have the opportunity to grow.

The demand for alternative strategies, with LDI solutions having the fastest rate of growth in the space, aligns with SLIM's strategic positioning, and our deep understanding of LDI based on our insurance operations experience.

Business Units

Business	Description	Market position
MFS	<ul style="list-style-type: none"> Actively manages assets for retail and institutional investors, including pension plans, sovereign wealth funds, monetary authorities, and endowments and foundations Retail products are distributed through financial advisors, brokerages and other professionals Institutional products are distributed by an internal sales force, which is aided by a network of independent consultants 	<ul style="list-style-type: none"> Over US\$428 billion in AUM The 10th largest U.S. Retail funds manager⁽¹⁾
SLIM	<ul style="list-style-type: none"> SLIM delivers LDI, alternative fixed income and real estate solutions to Clients through a portfolio of companies, including: <ul style="list-style-type: none"> Bentall Kennedy, a real estate investment manager operating in Canada and the U.S. Prime Advisors, Inc., a U.S.-based investment management firm specializing in customized fixed income portfolios primarily for U.S. insurance companies Ryan Labs Asset Management Inc., a New York-based asset manager specializing in fixed income and LDI SLIIC, a Canadian institutional asset manager that provides investment expertise in alternative asset classes and LDI to pension funds and other institutional investors Institutional products are distributed by an internal sales force, which is aided by a network of independent consultants 	<ul style="list-style-type: none"> Over \$65.5 billion in AUM

(1) As reported by Strategic insight based on AUM as at December 31, 2018.

Financial and Business Results

SLF Asset Management (C\$ millions)	2018	2017	2016
Reported net income	909	653	729
Fair value adjustments on MFS's share-based payment awards ⁽¹⁾	(5)	(81)	30
Other ⁽²⁾⁽³⁾	(11)	(78)	—
Underlying net income ⁽¹⁾	925	812	699
Assets under management (C\$ billions) ⁽¹⁾	649.7	677.6	624.8
Gross sales (C\$ billions) ⁽¹⁾	111.4	117.3	116.3
Net sales (C\$ billions) ⁽¹⁾	(37.3)	(22.4)	(12.2)
MFS (C\$ millions)			
Reported net income	893	612	700
Fair value adjustments on MFS's share-based payment awards ⁽¹⁾	(5)	(81)	30
U.S. tax reform ⁽³⁾	—	(95)	—
Underlying net income ⁽¹⁾	898	788	670
Assets under management (C\$ billions) ⁽¹⁾	584.2	618.3	571.6
Gross sales (C\$ billions) ⁽¹⁾	104.3	106.5	108.2
Net sales (C\$ billions) ⁽¹⁾	(38.5)	(28.5)	(16.7)
MFS (US\$ millions)			
Reported net income	689	471	528
Fair value adjustments on MFS's share-based payment awards ⁽¹⁾	(4)	(64)	22
U.S. tax reform	—	(75)	—
Underlying net income ⁽¹⁾	693	610	506
Pre-tax net operating profit margin ratio ⁽¹⁾	38%	38%	36%
Average net assets (US\$ billions) ⁽¹⁾	477.5	460.5	421.7
Assets under management (US\$ billions) ⁽¹⁾	428.4	491.6	425.6
Gross sales (US\$ billions) ⁽¹⁾	80.6	82.1	81.7
Net sales (US\$ billions) ⁽¹⁾	(29.7)	(21.8)	(12.6)
SLIM (C\$ millions)			
Reported net income	16	41	29
Other ⁽²⁾⁽³⁾	(11)	17	—
Underlying net income ⁽¹⁾	27	24	29
Assets under management (C\$ billions) ⁽¹⁾	65.5	59.3	53.2
Gross sales (C\$ billions) ⁽¹⁾	7.0	10.8	8.1
Net sales (C\$ billions) ⁽¹⁾	1.2	6.1	4.5

(1) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

(2) Includes \$11 in acquisition, integration and restructuring in 2018 relating to the merger of Bentall Kennedy and GreenOak, expected to close in 2019, and a charge relating to U.S. tax reform in 2017.

(3) In the fourth quarter of 2017, the U.S. tax reform of \$(78) million consists of a charge of \$32 million relating to the revaluation of its deferred tax balances, consisting of a charge of \$49 million for MFS, partially offset by a benefit of \$17 million for SLIM, and a one-time charge on the deemed repatriation of foreign earnings of \$46 million for MFS in the fourth quarter of 2017.

Profitability

SLF Asset Management's reported net income in 2018 was \$909 million, compared to \$653 million in 2017. Underlying net income was \$925 million in 2018, compared to \$812 million in 2017. The impact from the movement of the Canadian dollar in 2018 relative to average exchange rates in 2017 decreased reported net income and underlying net income by \$2 million.

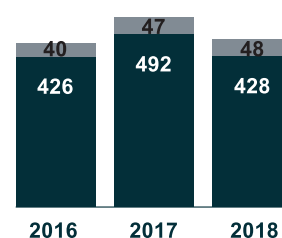
SLF Asset Management's reported net income in 2018 compared to 2017 reflected the \$78 million charge in 2017 related to the enactment of the U.S. tax reform. The increase also reflected the impact of lower fair value adjustments on MFS's share-based payment awards. Underlying net income was US\$693 million in 2018, compared to US\$610 million in 2017 which reflected the impact of the lower income tax rate in the U.S., and higher average net assets.

Growth

SLF Asset Management's AUM was \$649.7 billion in 2018, compared to \$677.6 billion in 2017. The decrease was primarily due to asset depreciation of \$43.9 billion and net outflows of \$37.3 billion, partially offset by the weakening Canadian dollar relative to exchange rates at the end of 2017 of \$52.9 billion.

Asset Under Management (U.S. \$ billions)

■ MFS ■ SLIM



Profitability and Growth by Business Unit

MFS

MFS's reported net income in 2018 was US\$689 million, compared to US\$471 million in 2017. MFS's reported net income in 2018 compared to 2017 reflected the US\$75 million charge in 2017 related to the enactment of the U.S. tax reform. The increase also reflected the impact of lower fair value adjustments on MFS's share-based payment awards, the impact of the lower income tax rate in the U.S. and higher fee income from higher average net assets.

AUM was US\$428.4 billion (\$584.2 billion) as at December 31, 2018, compared to US\$491.6 billion (\$618.3 billion) as at December 31, 2017. The decrease of US\$63.2 billion was primarily driven by asset depreciation of US\$33.5 billion, and net outflows of US\$29.7 billion.

SLIM

SLIM's reported net income in 2018 was \$16 million compared to \$41 million in 2017, reflecting the \$17 million benefit in 2017 related to the enactment of the U.S. tax reform. The decrease also reflected the impact of acquisition expenses incurred in 2018 for the pending GreenOak transaction. SLIM's underlying net income was \$27 million compared to \$24 million in 2017.

SLIM's AUM was \$65.5 billion as at December 31, 2018, compared to \$59.3 billion as at December 31, 2017. This increase was primarily due to the impact of movement of the Canadian dollar relative to exchange rates in 2017 and asset appreciation.

4. SLF Asia

SLF Asia operates in seven markets, delivering value to over 20 million Clients by providing life, health and wealth management solutions through a multi-channel distribution approach. SLF Asia's seven Asian markets account for over 87% of GDP and 91% of life insurance premiums of higher growth markets in Asia. As well, SLF Asia manages our International high net worth insurance business.

Business Profile

Business Units

- Insurance and Wealth
- International

2018 Highlights

- Our wealth and asset management businesses in Asia ended 2018 with total AUM of \$48.6 billion, including:
 - \$11.9 billion from our Hong Kong pension business.
 - \$24.2 billion from our asset management joint venture in India.
- Bancassurance sales in India more than quadrupled after further establishing our relationship with HDFC Bank Limited, the largest bank in India's private sector, as we develop scale in this market.
- We launched or enhanced digital tools and products to empower and inspire our Clients, such as:
 - A new Client app in Hong Kong, with first-in-the-market capability to accelerate payments to Clients for hospitalization and accident e-claims.
 - Our SunActiv app in Malaysia that rewards Clients for staying healthy and active.
 - A launch of seven innovative products in four countries this year, including a first-of-its-kind in the Philippines with online shopping platform Lazada to make it easier for Clients to purchase insurance online. Through these initiatives with digital partners, we now provide protection products to more than 38,000 Clients.
- We completed a strategic investment in Bowtie. This investment in the first virtual insurer in Hong Kong approved under the Fast Track⁽¹⁾ will further solidify our focus on becoming a leading insurance company at the forefront of innovation.
- Our Hong Kong MPF earned key industry awards that demonstrate we are providing relevant and value-added service to our Clients, including:
 - the top ranking in Mercer's latest MPF Provider Satisfaction Rankings
 - the Sun Life Rainbow MPF Scheme was named "Scheme of the Year 2018" by MPF Ratings
- In Asia, Sun Life Financial ranked as one of the top six insurance brands in the 2018 list of Campaign Asia's Top 1000 Brands⁽²⁾, a confirmation that our brand equity is growing in the region.

Strategy and Outlook

In order to achieve our ambitious growth objectives in earnings, sales and value of new business, SLF Asia will need to grow scale in all our markets, with world-class distribution capabilities, operations excellence, underpinned with superior digital and data & analytics expertise while investing in the right talent. Our areas of focus for Asia are to:

Build World-class distribution

- Extend our reach across channels and segments to serve the growing insurance markets in Asia, and reach more Clients via expanding our health and wellness offerings.
- Create a unique distribution differentiator in each market by continuing to build on our Most Respected Advisor ("MRA") principles to create the next generation of elite distribution leaders.
- Use data and analytics to drive advancement in Client retention, advisor productivity, quality recruitment and training and development.

Transform our operations and business model

- Digitize our business and use technology to create operating leverage in all functions.
- Deliver an omni-channel experience engaging Clients where, when and how they wish.
- Enhance the Client experience by making it easier to do business with us and ensuring a seamless experience in all our markets in Asia.
- Use data and analytics to become more Client-centric, personal, proactive and predictive to reach prospective Clients and engage existing Clients.
- Successfully integrate our International business into SLF Asia, enabling us to develop additional domestic high net worth capabilities and create revenue synergies to maximize value.

Continue to build scale in each of our markets

- Achieve scale in each market to play a bigger role in the lives of our Clients, continuously offering them the best solutions at the most competitive price.
- To grow our scale, we will focus on both organic and inorganic opportunities. For inorganic growth, we will consider transformative opportunities while selectively pursuing incremental opportunities when they meet our criteria.

(1) Fast Track process refers to the pilot launched by the Insurance Authority of Hong Kong on September 29, 2017. It is a fast track for applications for authorizations of new insurers owning and operating solely digital distribution channels.

(2) As reported by marketing authority Campaign Asia.

Outlook

We expect that Asia's economic growth will continue to underpin the expansion of the life and health insurance and wealth industries. This, combined with favourable demographics, low penetration rates for insurance and significant growth of the middle class, provides tremendous opportunities for SLF Asia. We expect bancassurance will remain the fastest growing channel in most of our markets. Digital will also continue to increase in importance in Asia as a means to engage, sell to and service Clients, and we will continue to invest in this area.

The Asian markets face headwinds, such as changing regulatory regimes, increased competition from new entrants, and economic and geopolitical uncertainty, which continue to pose challenges and opportunities to our businesses.

We believe our diversified business with multi-country presence and multi-channel distribution makes us well positioned to capture opportunities as they arise, and protects our business as a whole against adverse economic or regulatory cycles in any one market. Overall, our current strong market positions, key strategic partnerships and our ability to leverage our global expertise position us well for the future.

Business Markets

Business	Description	Market Position
Insurance and Wealth		
<i>Philippines⁽¹⁾</i>	<ul style="list-style-type: none"> Individual and group life and health insurance products to individuals and businesses through a multi-channel distribution network Mutual funds to individual and institutional Clients through agency, brokerage, bancassurance and digital partners 	<ul style="list-style-type: none"> #1 ranked insurance company⁽²⁾ 3rd largest mutual fund operation in the country⁽³⁾
<i>Hong Kong</i>	<ul style="list-style-type: none"> Individual and group life and health insurance to individuals and businesses through agency and brokerage distribution MPF and pension administration to individuals and businesses through agency and brokerage distribution 	<ul style="list-style-type: none"> Top 10 in Agency for Life Insurance⁽⁴⁾ 4th largest provider based on AUM, 2nd based on net inflows⁽⁵⁾
<i>Indonesia</i>	<ul style="list-style-type: none"> Individual life and health insurance and creditor life insurance through agency, telco arrangements and bancassurance, including an exclusive bancassurance partnership with CIMB Niaga, the 5th largest bank in the country 	<ul style="list-style-type: none"> Ranked in the Top 15 overall and Top 10 in Agency⁽⁶⁾
<i>Vietnam</i>	<ul style="list-style-type: none"> Individual insurance and pensions distributed through agency, corporate sales and digital distribution channels 	<ul style="list-style-type: none"> Ranked in the Top 15 overall⁽⁷⁾
<i>Malaysia⁽⁸⁾</i>	<ul style="list-style-type: none"> Individual and group insurance through banks and telco arrangements, including an exclusive bancassurance agreement with CIMB Bank, Malaysia's 2nd largest bank, and a newly established agency force in partnership with CIMB Principal Asset Management 	<ul style="list-style-type: none"> 3rd in bancassurance sales⁽⁹⁾
<i>India⁽¹⁰⁾</i>	<ul style="list-style-type: none"> Individual and group insurance, savings and retirement products through agency, brokerage and bancassurance channels Mutual fund products to both individual and institutional investors through independent financial advisors, banks, and direct distribution channels 	<ul style="list-style-type: none"> 8th largest life insurance company in India⁽¹¹⁾ 4th largest mutual fund operation in the country⁽¹²⁾
<i>China⁽¹³⁾</i>	<ul style="list-style-type: none"> Individual and group life and health insurance and savings products distributed through agency, brokerage, bancassurance and digital channels Institutional asset management, passive third-party asset management and debt financing business through direct distribution 	<ul style="list-style-type: none"> Top 10 and the fastest growing life insurance company in China among multinationals⁽¹⁴⁾
International	<ul style="list-style-type: none"> Individual life insurance solutions for high-net-worth individuals and families residing outside the U.S. and Canada Manages a block of International wealth investment products closed to new sales 	<ul style="list-style-type: none"> A leader in International high-net-worth life insurance business

(1) Philippines: Includes a Joint venture with the Yuchengco Group - Sun Life Grepa Financial, Inc. (49%).

(2) Insurance Commission of the Philippines, based on 2017 total premium income for Sun Life of Canada (Philippines).

(3) Philippine Investment Funds Association, based on December 2018 ending assets under management.

(4) Insurance Authority of Hong Kong, Provisional Statistics on Hong Kong Long Term Insurance Business, based on third quarter 2018 year to date annualized first year premiums.

(5) Mercer MPF Report (as at December 31, 2018).

(6) Indonesia Life Insurance Association industry report, based on third quarter 2018 year to date first year premiums.

(7) December 2018 year to date annualized first year premiums based on data shared among industry players.

(8) Malaysia: Joint ventures with Khazanah Nasional Berhad and CIMB Group Holdings Berhad - Sun Life Malaysia Assurance Berhad (49%), Sun Life Malaysia Takaful Berhad (49%).

(9) Life Insurance Association of Malaysia and Insurance Services Malaysia Berhad, based on the third quarter 2018 year to date annualized first year premium for conventional and takaful business.

(10) India: Joint ventures with the Aditya Birla Group - Aditya Birla Sun Life Insurance Company Limited (49%), Aditya Birla Sun Life Asset Management Company Limited ("Aditya Birla Sun Life AMC Limited") (49%).

(11) Insurance Regulatory Authority of India, based on 2018 first year premiums among private players.

(12) Association of Mutual Funds in India, based on average assets under management for the quarter ended December 31, 2018.

(13) China: Joint ventures with the China Everbright Group: Sun Life Everbright Life Insurance Company Limited (24.99%), Sun Life Everbright Asset Management Co., Ltd (24.74%).

(14) China Banking Insurance Regulatory Commission, based on gross premiums for November 2018 year to date (excluding universal and variable universal life insurance deposits and pension companies).

Financial and Business Results

(\$ millions)	2018	2017	2016
Insurance and Wealth	381	326	309
International ⁽¹⁾	174	452	291
Reported net income	555	778	600
Market related impacts ⁽²⁾	(30)	38	(5)
Assumption changes and management actions ⁽²⁾	76	284	114
Other ⁽³⁾⁽⁴⁾	(14)	(5)	33
Underlying net income ⁽³⁾	523	461	458
Reported ROE (%) ⁽³⁾⁽⁵⁾	11.3	14.4	11.7
Underlying ROE (%) ⁽³⁾⁽⁵⁾	10.6	8.5	8.9
Insurance Sales ⁽³⁾	898	811	755
Wealth Sales ⁽³⁾	10,101	13,056	8,849

(1) Effective January 1, 2018, we transferred our International business unit from SLF U.S. to SLF Asia, and comparative figures have been changed to conform with the current year presentation.

(2) See section L - Non-IFRS Financial Measures in this document for a breakdown of components within this adjustment.

(3) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

(4) In 2018, Other amounts relate primarily to a distribution arrangement in India for asset management. In 2016, Other amounts relate primarily to an adjustment for a non-cash gain upon acquiring control over the operations of Sun Life Vietnam Insurance Company Limited and upon acquiring control over the operations of PT CIMB Sun Life in Indonesia, partially offset by acquisition and integration costs.

(5) As a result of a revision of the capital allocation model for SLF Asia, reported and underlying ROEs increased by 1.5% for the year ended 2018.

Profitability

Reported net income was \$555 million in 2018, compared to \$778 million in 2017. Underlying net income in 2018 was \$523 million, compared to \$461 million in the prior year. The impact from the movement in the Canadian dollar in 2018 relative to average exchange rates in 2017 decreased reported net income and underlying net income by \$12 million and \$10 million, respectively.

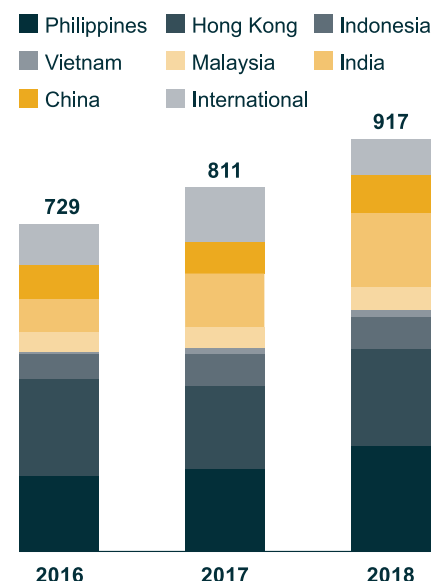
Reported net income in 2018 compared to 2017 predominantly reflected less favourable ACMA and unfavourable equity markets. Underlying net income in 2018 compared to 2017 reflected growth in the business and investment related experience in International, partially offset by higher new business strain, unfavourable expense experience reflecting business growth initiatives across SLF Asia, and unfavourable mortality experience in International.

Growth

SLF Asia insurance sales were \$898 million in 2018, compared to \$811 million in 2017. On a constant currency basis, individual insurance sales increased 13% mainly driven by growth in the Philippines, India, and Hong Kong, partially offset by sales in International which were lower due to the competitive environment and market volatility.

SLF Asia wealth sales were \$10.1 billion in 2018, compared to \$13.1 billion in 2017. Wealth sales were down 20% on a constant currency basis over 2017, as a result of lower mutual funds sales in India due to market volatility and the Philippines due to elevated money market sales in 2017, partially offset by continued strong growth in Hong Kong pension business.

Constant Currency Insurance Sales (\$ millions)



Profitability by Business Unit and Growth by Business Market

Reported net income for Insurance and Wealth was \$381 million in 2018, compared to \$326 million in 2017. Reported net income in 2018 compared to 2017 reflected favourable impact from ACMA and business growth, partially offset by unfavourable market related impacts primarily due to equity market changes, expense experience reflecting business growth initiatives and new business strain.

We continued to build our agency and alternate distribution channels, leverage a more balanced product portfolio and increase efficiency and productivity while maintaining Client focus.

Philippines - On a local currency basis, individual insurance sales were up 27% from 2017. Mutual and managed fund AUM were \$1.4 billion as at the end of 2018, 34% lower than 2017, measured in local currency, reflecting strong money market sales through a bank relationship in 2017.

Agency headcount reached approximately 14,800 at the end of 2018, 33% higher than 2017.

Hong Kong - On a local currency basis, individual insurance sales were up 16% from 2017, with growth in both the agency and broker channel. AUM in our pension business reached \$11.9 billion, up 8% from 2017, measured in local currency, and pension net flows were up 59% over the prior year.

Agency headcount grew 10% from 2017 to approximately 2,200 at the end of 2018.

Indonesia - On a local currency basis, our individual life insurance sales in Indonesia were down 3% from 2017, with growth in bancassurance channels offset by lower telemarketing sales.

Agency headcount was at approximately 8,800 in 2018, a reduction from the previous year-end, as we focused on quality and terminated inactive agents.

Vietnam - On a local currency basis, individual insurance sales grew by 40% from 2017, driven primarily by growth in the corporate sales channel.

Agency headcount was almost 4,700 at the end of 2018, up 24% from 2017.

Malaysia - On a local currency basis, individual insurance sales in Malaysia were up 7% in 2018 compared to 2017.

Malaysia's agency force, newly established in 2018, surpassed 400 agents.

India - On a local currency basis, individual life insurance sales were up 45% from 2017, driven by growth in bancassurance through establishment of our relationship with HDFC Bank Limited.

On a local currency basis, gross sales of equity and fixed income funds decreased by 27% due to market volatility.

Total AUM at the end of 2018 were \$49.3 billion, of which \$24.2 billion is reported in our AUM, in line with the balances at the end of 2017.

China - On a local currency basis, sales of individual insurance products by Sun Life Everbright Life Insurance Company Limited ("SLEB") were up 14% in 2018 compared to 2017, driven by strong performance of the broker channel.

International

International's reported net income was \$174 million in 2018, compared to \$452 million in 2017. Reported net income in 2018 compared to 2017 reflected the less favourable ACMA impacts, as well as unfavourable market impacts.

Sales in International life insurance in 2018 were \$82 million, a decrease of 34% compared to 2017 due to the competitive environment and market volatility.

5. Corporate

Corporate includes the results of our United Kingdom business (SLF U.K.) and Corporate Support.

Business Units

Business	Description
SLF U.K.	<ul style="list-style-type: none">SLF U.K. has a run-off block of business consisting of approximately 590,000 in-force life and pension policies, with approximately £11 billion of AUM. Since December 2010, SLF U.K. has been closed to new business and focuses on supporting existing Clients. Most administrative functions have been outsourced to external service providers which are managed by an in-house management team.
Corporate Support	<ul style="list-style-type: none">Corporate Support operations consist of the expenses, debt charges, investment income, capital and other items not allocated to Sun Life Financial's other business segments, as well as the Company's Run-off reinsurance business. Coverage in our Run-off reinsurance business includes long-term care, medical coverage, and guaranteed minimum income and death benefit coverage. The block also includes group long-term disability and personal accident which are 100% retroceded.

Financial and Business Results

Summary statements of operations

(\$ millions)	2018	2017	2016
SLF U.K.	250	181	184
Corporate Support	(186)	(282)	(181)
Reported net income (loss)	64	(101)	3
Market related impacts ⁽¹⁾	(15)	5	(13)
Assumption changes and management actions ⁽¹⁾⁽²⁾	140	55	14
Acquisition, integration and restructuring ⁽³⁾⁽⁴⁾	(10)	(55)	(5)
U.S. tax reform ⁽²⁾	—	(54)	—
Underlying net income (loss) ⁽⁴⁾	(51)	(52)	7

(1) See section L - Non-IFRS Financial Measures in this document for a breakdown of components within this adjustment.

(2) ACMA in 2017 excludes the \$5 million change that is included in U.S. tax reform, shown separately.

(3) In 2017, the amount consists primarily of the impact in the fourth quarter of 2017 of the Company's plan to enhance business processes and organizational structures and capabilities.

(4) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

Profitability

The reported net income was \$64 million in the Corporate segment in 2018, compared to a reported net loss of \$101 million in 2017, which reflected the \$54 million charge in 2017 related to the enactment of the U.S. tax reform and the 2017 restructuring charge. The increase also reflected the favourable impact of ACMA, partially offset by unfavourable market related impacts, predominately due to net interest rate impacts. Underlying net loss was \$51 million in 2018, compared to an underlying net loss of \$52 million in the prior year, reflecting increased profitability in SLF U.K. and higher investment income on surplus assets, largely offset by lower benefit of tax related items. The impact from the movement of the Canadian dollar relative to average exchange rates in 2017 decreased reported net loss by \$8 million and decreased underlying net loss by \$5 million.

Profitability by Business Unit

SLF U.K.

SLF U.K.'s reported net income was \$250 million in 2018, compared to \$181 million in 2017, which reflected the favourable impact of ACMA, increased profitability, partially offset by unfavourable market related impacts, predominately due to net interest rate impacts.

Corporate Support

In Corporate Support, the reported net loss was \$186 million in 2018, compared to a reported net loss of \$282 million in 2017. The decrease in loss was primarily due to the \$54 million charge in 2017 related to the enactment of the U.S. tax reform and the 2017 restructuring charge. The favourable change also reflected favourable ACMA relating to the termination of assumed business, higher investment income on surplus assets, partially offset by lower benefit of tax related items.

H. Investments

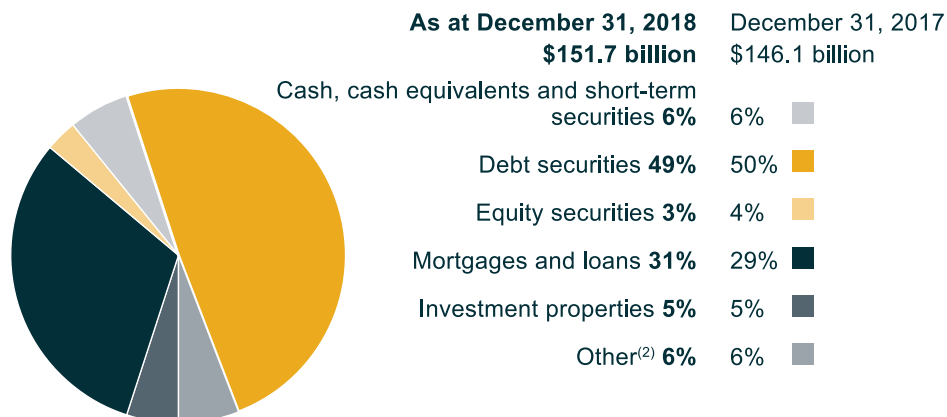
The Company strives to ensure that all general fund investments are properly aligned with business objectives including meeting policyholder obligations and maintaining adequate liquidity at all times. Consideration is given in our investment process to a wide range of factors, including ensuring attractive risk and return profiles, appropriate diversification by asset type, credit exposure and sector, financial condition of issuers and borrowers, quality and value of underlying security and macro- and micro-economic developments and trends including prospects for specific industry sectors. The Risk & Conduct Review Committee of the Board of Directors ("The Risk & Conduct Review Committee") approves policies that contain prudent standards and procedures for the investment of our general fund assets. These policies include requirements, restrictions and limitations for interest rate, credit, equity market, real estate market, liquidity, concentration, currency, and derivative risks. Compliance with these policies is monitored on a regular basis and reported annually to the Risk & Conduct Review Committee. The Governance, Nomination & Investment Committee of the Board of Directors monitors the Company's Investment Plan and investment performance, oversees practices, procedures and controls related to the management of the general fund investment portfolio, and reviews corporate governance guidelines and processes.

1. Investment Profile

We had total general fund invested assets of \$151.7 billion as at December 31, 2018, compared to \$146.1 billion as at December 31, 2017. The increase in general fund invested assets was primarily due to an increase in operating activities as well as changes in the currency impact from the weakening of Canadian dollar relative to exchange rates at the end of the fourth quarter of 2017, offset by a decline in net fair value. Our general fund invested assets are well diversified across investment types, geographies and sectors with the majority of our portfolio invested in fixed income high-quality assets.

Additional detail on our investments is provided in Notes 5 and 6 to our 2018 Annual Consolidated Financial Statements.

The following chart sets out the composition of our general fund invested assets⁽¹⁾.



(1) The values and ratios presented are based on the carrying value of the respective asset categories. Generally the carrying values for invested assets are equal to their fair values; however our mortgages and loans are generally carried at amortized cost. As at December 31, 2018, the fair value of mortgages and loans was \$48.4 billion (\$45.4 billion as at December 31, 2017) and the carrying value of mortgages and loans was \$46.8 billion (\$42.8 billion as at December 31, 2017). For invested assets supporting insurance contracts, in the event of default, if the amounts recovered are insufficient to satisfy the related insurance contract liability cash flows that the assets are intended to support, credit exposure may be greater than the carrying value of the assets.

(2) Consists of: Other invested assets (3%), Policy loans (2%), Derivative assets (1%) for both 2018 and 2017.

2. Debt Securities

Our debt securities portfolio is actively managed through a regular program of purchases and sales aimed at optimizing yield, quality and liquidity, while ensuring that it remains well diversified and duration-matched to insurance contract liabilities. With the exception of certain countries where we have business operations, including Canada, the United States, the United Kingdom and the Philippines, our exposure to debt securities from any single country did not exceed 1% of total invested assets on our 2018 Annual Consolidated Financial Statements.

Debt Securities by Issuer and Industry Sector

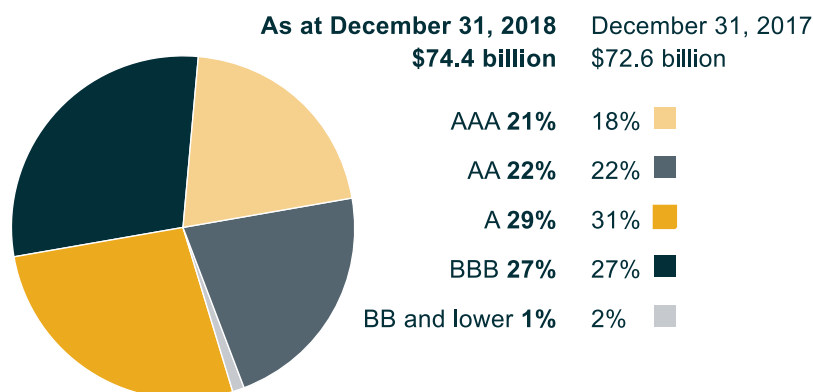
	December 31, 2018		December 31, 2017	
(\$ millions)	Total	% of Total	Total	% of Total
Debt securities issued or guaranteed by:				
Canadian federal government	5,576	7%	5,198	7%
Canadian provincial and municipal government	13,065	18%	13,296	18%
U.S. government and agency	2,907	4%	2,049	3%
Other foreign government	5,646	8%	6,113	9%
Total government issued or guaranteed debt securities	27,194	37%	26,656	37%
Corporate debt securities by industry sector ⁽¹⁾ :				
Financials	9,860	13%	9,561	12%
Utilities	6,881	9%	7,306	10%
Industrials	4,643	6%	4,797	7%
Energy	3,968	5%	4,112	6%
Communication services	3,307	4%	3,371	5%
Real estate	3,016	4%	2,579	4%
Health care	2,033	3%	1,579	2%
Consumer staples	1,882	3%	2,271	3%
Consumer discretionary	1,581	2%	1,692	2%
Materials	1,481	2%	1,473	2%
Information technology	1,231	2%	1,323	2%
Total corporate debt securities	39,883	53%	40,064	55%
Asset-backed securities	7,366	10%	5,899	8%
Total debt securities	74,443	100%	72,619	100%

(1) Our grouping of debt securities by sector is based on the Global Industry Classification Standard and S&P Dow Jones Indices. During 2018, certain consumer discretionary and information technology debt securities were moved to the communication services sector. 2017 balances have been changed to conform with current year presentation.

Debt Securities by Credit Rating

The credit risk ratings in the following table were established in accordance with the internal rating process described in this MD&A under the heading J - Risk Management - 8 - Risk Categories - Credit Risk Management Governance and Control.

Our debt securities with a credit rating of "A" or higher represented 72% of the total debt securities as at December 31, 2018, compared to 71% as at December 31, 2017. Debt securities with a credit rating of "BBB" or higher represented 99% of total debt securities as at December 31, 2018, compared to 98% as at December 31, 2017.



Debt Securities by Geography

The carrying value of FVTPL and AFS debt securities by geographic location is presented in the following table.

	December 31, 2018				December 31, 2017			
(\$ millions)	FVTPL debt securities	AFS debt securities	Total	% of Total	FVTPL debt securities	AFS debt securities	Total	% of Total
Debt securities								
Canada	25,091	4,217	29,308	38%	24,132	4,114	28,246	39%
United States	21,329	5,917	27,246	37%	20,758	5,719	26,477	36%
Europe	8,840	1,278	10,118	14%	8,923	1,402	10,325	14%
Asia	3,673	445	4,118	6%	3,694	571	4,265	6%
Other	2,469	1,184	3,653	5%	2,460	846	3,306	5%
Total debt securities	61,402	13,041	74,443	100%	59,967	12,652	72,619	100%

Our gross unrealized losses as at December 31, 2018 for FVTPL and AFS debt securities were \$1.4 billion and \$0.2 billion, respectively, compared with \$0.3 billion and \$0.1 billion, respectively, as at December 31, 2017. The increase in gross unrealized losses was largely due to the impact from rising interest rates and credit spreads.

3. Equities

Our equity portfolio is well diversified with approximately 50% of our portfolio invested in exchange-traded funds as at December 31, 2018, compared to 58% as at December 31, 2017. Exchange-traded fund holdings are primarily in the S&P/Toronto Stock Exchange ("TSX") 60 Index Fund and TD Emerald U.S. Market Index Fund. The reduction is consistent with our strategy to lower our exposure to index funds and to equity markets overall. The carrying value of equities by issuer geography as at December 31, 2018 is set out in the following table.

Equities by Issuer Geography

(\$ millions)	December 31, 2018				December 31, 2017			
	FVTPL equities	AFS equities	Total	% of Total	FVTPL equities	AFS equities	Total	% of Total
Equity securities								
Canada	2,651	15	2,666	58%	3,282	53	3,335	55%
United States	508	388	896	19%	765	671	1,436	24%
Europe	371	10	381	8%	404	6	410	7%
Asia	469	206	675	15%	613	212	825	14%
Other	15	1	16	—%	14	—	14	—%
Total equity securities	4,014	620	4,634	100%	5,078	942	6,020	100%

Excluding exchange-traded funds and mutual funds, there were no issuers exceeding 1% of the equity portfolio as at December 31, 2018.

4. Mortgages and Loans

Mortgages and loans in this section are presented at their carrying value on our 2018 Annual Consolidated Financial Statements. Our mortgage portfolio consisted almost entirely of first mortgages and our loan portfolio consisted of private placement loans.

The carrying value of mortgages and loans by geographic location is presented in the following table⁽¹⁾.

Mortgages and Loans by Geography

(\$ millions)	December 31, 2018				December 31, 2017			
	Mortgages	Loans	Total	% of Total	Mortgages	Loans	Total	% of Total
Canada	8,557	13,238	21,795	46%	8,390	13,265	21,655	51%
United States	7,876	11,458	19,334	41%	7,103	9,542	16,645	39%
Europe	—	3,628	3,628	8%	—	2,706	2,706	6%
Asia	—	332	332	1%	—	265	265	1%
Other	—	1,733	1,733	4%	—	1,534	1,534	3%
Total	16,433	30,389	46,822	100%	15,493	27,312	42,805	100%

(1) The geographic location for mortgages is based on the location of the property and for loans it is based on the country of the creditor's parent.

Mortgage Portfolio

As at December 31, 2018, we held \$16.4 billion of mortgages, compared to \$15.5 billion as at December 31, 2017. Our mortgage portfolio consists entirely of commercial mortgages, as presented in the following table.

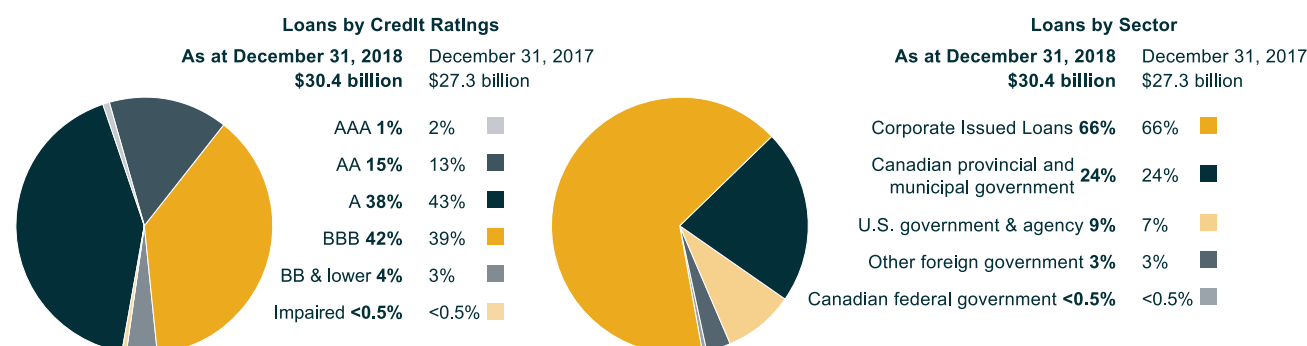
(\$ millions)	December 31, 2018			December 31, 2017		
	Insured	Uninsured	Total	Insured	Uninsured	Total
Mortgages						
Retail	—	4,202	4,202	—	4,291	4,291
Office	—	4,228	4,228	—	4,261	4,261
Multi-family residential	3,196	2,179	5,375	2,921	1,661	4,582
Industrial and land	—	1,906	1,906	—	1,660	1,660
Other	341	381	722	250	449	699
Total mortgages	3,537	12,896	16,433	3,171	12,322	15,493
% of total mortgages	22%	78%	100%	20%	80%	100%

As at December 31, 2018, 33% of our commercial mortgage portfolio consisted of multi-family residential mortgages; there are no single family residential mortgages. Our uninsured commercial portfolio had a weighted average loan-to-value ratio of approximately 55% as at December 31, 2018, consistent with December 31, 2017. While we generally limit the maximum loan-to-value ratio to 75% at issuance, we may invest in mortgages with a higher loan-to-value ratio in Canada if the mortgage is insured by the Canada Mortgage and Housing Corporation ("CMHC"). The estimated weighted average debt service coverage for our uninsured commercial portfolio is 1.75 times. Of the \$3.5 billion of multi-family residential mortgages in the Canadian commercial mortgage portfolio, 93% were insured by the CMHC.

Loan Portfolio

As at December 31, 2018, we held \$30.4 billion of loans, compared to \$27.3 billion as at December 31, 2017. Private placement loans provide diversification by type of loan, industry segment and borrower credit quality. The private placement loan portfolio consists of senior secured and unsecured loans to large- and mid-market sized corporate borrowers, securitized lease/loan obligations secured by a variety of assets, and project finance loans in sectors such as power and infrastructure. The growth in the portfolio is consistent with our strategy to increase our investments in private placement loans, as well as the currency impact of the movement of the Canadian dollar relative to exchange rates at the end of 2017.

The credit risk ratings in the following chart were established in accordance with the internal rating process described in this MD&A under the heading J - Risk Management - 8 - Risk Categories - Credit Risk Management Governance and Control. As at December 31, 2018, 96% of our total loan portfolio is investment grade, compared to 97% as at December 31, 2017.



Mortgages and Loans Past Due or Impaired

The gross carrying value and allowance for mortgages and loans past due or impaired are presented in the following table.

December 31, 2018

(\$ millions)	Gross carrying value			Allowance for losses		
	Mortgages	Loans	Total	Mortgages	Loans	Total
Not past due	16,427	30,332	46,759	—	—	—
Past due:						
Past due less than 90 days	—	14	14	—	—	—
Past due 90 days or more	—	—	—	—	—	—
Impaired	31	93	124	25 ⁽¹⁾	50	75
Total	16,458	30,439	46,897	25	50	75

December 31, 2017

(\$ millions)	Gross carrying value			Allowance for losses		
	Mortgages	Loans	Total	Mortgages	Loans	Total
Not past due	15,482	27,180	42,662	—	—	—
Past due:						
Past due less than 90 days	—	71	71	—	—	—
Past due 90 days or more	—	—	—	—	—	—
Impaired	33	89	122	22 ⁽¹⁾	28	50
Total	15,515	27,340	42,855	22	28	50

(1) Includes \$21 million of sectoral provisions as at December 31, 2018, and \$20 million of sectoral provisions as at December 31, 2017.

Our impaired mortgages and loans, net of allowances for losses, were \$49 million as at December 31, 2018, compared to \$72 million as at December 31, 2017.

5. Derivatives

The fair value of derivative assets held by the Company was \$1,112 million, while the fair value of derivative liabilities was \$2,295 million as at December 31, 2018, compared to a fair value of derivative assets of \$1,478 million and a fair value of derivative liabilities of \$1,756 million as at December 31, 2017.

We use derivative instruments to manage risks related to interest rate, equity market and currency fluctuations and in replication strategies to reproduce permissible investments. Our use of derivatives in these risk mitigation strategies does not mitigate all risk exposure; rather, they are used to keep us within our risk tolerance limits.

In addition to the general policies and monitoring, we use a variety of tools in counterparty risk management. Over-the-counter ("OTC") derivative transactions are executed under International Swaps and Derivatives Association ("ISDA") Master Agreements. A Credit Support Annex accompanies most of the ISDAs, which establish requirements for collateral.

Derivative Instruments

The values associated with our derivative instruments are presented in the following table. Notional amounts serve as the basis for payments calculated under derivatives contracts and are not exchanged.

(\$ millions)	2018	2017
As at December 31		
Net fair value	(1,183)	(278)
Total notional amount	59,198	54,121

The total notional amount of our derivatives increased to \$59.2 billion as at December 31, 2018 from \$54.1 billion as at December 31, 2017. The change in notional amount is mainly attributable to an increase of \$2.6 billion in foreign exchange contracts used for hedging foreign currency assets, as well as an increase of \$2.3 billion in interest rate contracts for risk management purposes.

The net fair value of derivatives was a liability of \$1,183 million as at December 31, 2018, compared to a liability of \$278 million as at December 31, 2017. The increase in the liability was primarily due to the impact from changes in foreign exchange rates and swap curves.

Certain of our derivatives are designated in qualifying hedging relationships for accounting purposes, and represented \$0.9 billion, or 1.6% of the total notional amount. Derivatives are designated in hedging relationships for accounting purposes to minimize accounting mismatches. These hedging relationships are documented at inception and hedge effectiveness is assessed on a quarterly basis.

Our derivatives designated in qualifying hedging relationships for accounting purposes include interest rate swaps, foreign exchange agreements, equity forwards and, previously, currency swaps. We designate certain interest rate swaps in fair value hedging relationships to hedge interest rate exposure on AFS assets. We also designate certain foreign exchange agreements in fair value and cash flow hedging relationships to manage foreign currency fluctuations associated with AFS assets. Additionally, we designate certain equity forwards in cash flow hedging relationships for anticipated payments of awards under certain stock-based compensation plans.

Credit Equivalent Amount

As the regulator of the Canadian insurance industry, OSFI provides guidelines to quantify the use of derivatives. The credit equivalent amount, a measure used to approximate the potential credit exposure, is determined as the replacement cost of the derivative contracts with a positive fair value plus an amount representing the potential future credit exposure.

The risk-weighted credit equivalent amount is a measure used to determine the amount of capital necessary to support derivative transactions for certain Canadian regulatory purposes. It is determined by weighting the credit equivalent amount according to the nature of the derivative and the creditworthiness of the counterparties.

(\$ millions)	2018		2017	
	Credit equivalent amount ("CEA") ⁽¹⁾	Risk weighted CEA ⁽¹⁾⁽²⁾	Credit equivalent amount ⁽¹⁾	Risk weighted CEA ⁽¹⁾⁽²⁾
Foreign exchange contracts	433	12	405	n/a
Interest rate contracts	98	3	135	n/a
Equity and other contracts	11	—	21	n/a
Total	542	15	561	n/a

(1) Amounts presented are net of collateral received.

(2) The December 31, 2018 risk-weighted credit equivalent amount is calculated under the new LICAT guideline, which were effective January 1, 2018. LICAT ratios are not applicable before January 1, 2018.

Credit Default Swaps By Underlying Financial Instrument Credit Rating

Credit default swaps ("CDS") are derivative 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 Company sells credit protection through CDS 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 section J - Risk Management - 8 - Risk Categories - Credit Risk Management Governance and Control.

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

(\$ millions)	2018		2017	
	Notional amount	Fair value	Notional amount	Fair value
Single name CDS contracts				
AA	48	1	67	1
A	611	9	584	15
BBB	674	13	446	9
Total single name CDS contracts	1,333	23	1,097	25
CDS index contracts	23	—	24	—
Total CDS contracts sold	1,356	23	1,121	25

Additional detail on our derivative portfolio by derivative type is provided in Note 6.A.iv to our 2018 Annual Consolidated Financial Statements.

6. Investment Properties

Office, retail and industrial properties are the major components of our investment properties portfolio, representing approximately 81% as at December 31, 2018. The increase in our investment property portfolio is predominantly driven by market appraisal gains and the impact of currency movement, partially offset by net sales this year.

Investment Properties by Type and Geography

December 31, 2018							
(\$ millions)	Office	Industrial	Retail	Multi-family residential	Other	Total	% of Total
Canada	1,937	1,119	1,092	900	378	5,426	76%
United States	847	358	338	—	109	1,652	23%
Europe	25	14	38	—	2	79	1%
Total	2,809	1,491	1,468	900	489	7,157	100%

December 31, 2017							
(\$ millions)	Office	Industrial	Retail	Multi-family residential	Other	Total	% of Total
Canada	1,966	1,000	1,177	921	196	5,260	74%
United States	907	318	386	—	120	1,731	25%
Europe	24	12	38	—	2	76	1%
Total	2,897	1,330	1,601	921	318	7,067	100%

7. Impaired Assets

Financial assets that are classified as FVTPL, which represented 45% of our invested assets as at December 31, 2018, do not have allowances for losses since changes in the fair value of these assets are recorded to income and the assets are recorded at fair value on our 2018 Annual Consolidated Financial Statements. In the event of default, if the amounts recovered are insufficient to satisfy the related insurance contract liability cash flows that the assets are intended to support, credit exposure may be greater than the carrying value of the asset.

In the absence of objective evidence of impairment, impairment losses are not recognized on AFS debt securities, equity securities and other invested assets. If the cost of these assets is greater than their fair values, unrealized losses are recognized in other comprehensive income. Unrealized losses may be due to interest rate fluctuations or depressed fair values in sectors which have experienced strong negative market performance.

Additional detail on our impairment policy is provided in Note 1.iii to our 2018 Annual Consolidated Financial Statements.

8. Asset Default Provision

We make provisions for possible future credit events in the determination of our insurance contract liabilities. The amount of the provision for asset default included in insurance contract liabilities is based on possible reductions in future investment yields that

vary by factors such as type of asset, asset credit quality (rating), duration and country of origin. To the extent that an asset is written off, or disposed of, any amounts that were set aside in our insurance contract liabilities for possible future asset defaults in respect of that asset are released.

Our asset default provision reflects the provision relating to future credit events for fixed income assets currently held by the Company that support our insurance contract liabilities. Our asset default provision as at December 31, 2018 was \$2,389 million for losses related to possible future credit events for fixed income assets currently held by the Company that support our insurance contract liabilities. This represents 2.3% of the fixed income assets supporting insurance contract liabilities reported on our Consolidated Statements of Financial Position as at December 31, 2018.

Our asset default provision as at December 31, 2018 was \$101 million higher than the provision as at December 31, 2017, primarily due to increases in the provision for assets purchased net of dispositions, weakening of the Canadian dollar, and changes to credit ratings, offset by the release of provisions on fixed income assets supporting our insurance contract liabilities.

The following table sets out the changes in our asset default provision for existing fixed income investments.

(\$ millions)	2018	2017
Opening balance	2,288	2,247
Purchases, dispositions and net asset movement ⁽¹⁾	205	398
Changes in assumptions and methodologies	—	(16)
Changes in ratings	47	11
Release of provisions ⁽²⁾	(266)	(272)
Currency	115	(80)
Closing balance	2,389	2,288

(1) Net movement reflects the fluctuation in the value of FVTPL assets arising from movements in interest rates, credit spreads and other factors that impact the market value of fixed income investments.

(2) This amount represents the orderly release of provisions for future credit events held in insurance contract liabilities.

I. Capital and Liquidity Management

Capital and liquidity management is core to our business as an insurance company. We ensure adequate capital for the protection of our policyholders, Clients and creditors, while managing capital adequacy and allocation across our businesses for the benefit of our shareholders. In addition, we maintain strong financial flexibility by ensuring that sufficient liquid assets are available to cover our anticipated payment obligations and funding requirements. We invest in various types of assets with a view to matching them with liabilities of various durations.

The regulatory environments in which we operate are expected to evolve as governments and regulators work to develop the appropriate level of financial regulation required to ensure that capital, liquidity and risk management practices are sufficient to withstand severe economic downturns.

1. Capital

We have a capital risk policy designed to maintain a strong capital position and to provide the flexibility necessary to take advantage of growth opportunities, to support the risk associated with our businesses and to optimize shareholder return. Our capital risk 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 the Company and its subsidiaries to take advantage of opportunities for expansion. Our capital base is structured to exceed minimum regulatory and internal capital targets and to maintain strong credit and financial strength ratings, while maintaining a capital-efficient structure. 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 jurisdictions in which we operate. The capital of our foreign subsidiaries is managed on a local statutory basis in a manner commensurate with their individual risk profiles.

Sun Life Financial, including all of its business groups, engages in a capital planning process annually in which capital deployment options, capital raising and dividend recommendations are presented to 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 & Conduct Review Committee on a quarterly basis. The Board of Directors is responsible for the approval of our annual capital plan and quarterly shareholder dividends.

The Company's capital risk policy establishes policies, operating guidelines and procedures that govern the management of capital. The capital risk policy is reviewed annually by the Risk & Conduct Review Committee and any changes are approved by the Board of Directors. Our Corporate Treasury and Risk Management functions are responsible for the development and implementation of the capital risk policy.

The Company's capital base consists mainly of common shareholders' equity. Other sources of capital include preferred shareholders' equity and subordinated debt issued by SLF Inc. and Sun Life Assurance. For Canadian regulatory purposes, our capital also includes innovative capital instruments issued by Sun Life Capital Trust and Sun Life Capital Trust II.

The following table summarizes the sources of our capital and our capital position over the past two years. Notes 13, 14, 15 and 21 to our 2018 Annual Consolidated Financial Statements include additional details on our capital.

(\$ millions)	2018	2017
Subordinated debt	3,039	3,437
Innovative capital instruments ⁽¹⁾	699	699
Equity		
Participating policyholders' equity	864	650
Preferred shareholders' equity	2,257	2,257
Common shareholders' equity	21,449	20,064
Total equity	24,570	22,971
Total capital	28,308	27,107
Financial leverage ratio ⁽²⁾	21.2%	23.6%

(1) Innovative capital instruments are presented net of associated transaction costs and consist of SLEECs, which were issued by Sun Life Capital Trust and Sun Life Capital Trust II. SLEECs qualify as capital for Canadian regulatory purposes. However, under IFRS they are reported as Senior debentures in our Annual and Interim Consolidated Financial Statements.

(2) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

Our total capital consists of subordinated debt and other capital instruments, participating policyholders' equity and total shareholders' equity which includes common shareholders' equity and preferred shareholders' equity.

Common shareholders' equity was \$21.4 billion as at December 31, 2018, compared with \$20.1 billion as at December 31, 2017. The \$1.4 billion increase was due to common shareholders' net income and OCI, partially offset by dividends on common shares and shares repurchased and cancelled.

The table below provides the earliest par call and maturity dates for our subordinated debt, innovative capital instruments and preferred shares outstanding as at December 31, 2018.

Description	Interest Rate	Earliest Par Call Date/Redemption Date ⁽¹⁾	Maturity	Principal/Face Amount (\$ millions)
Subordinated Debt Issued by Sun Life Assurance				
6.30% Debentures, Series 2	6.30%	n/a	2028	150
Subordinated Debt Issued by SLF Inc.				
Series 2007-1	5.40%	May 29, 2037	2042	400
Series 2014-1	2.77%	May 13, 2019	2024	250
Series 2015-1	2.60%	September 25, 2020	2025	500
Series 2016-1	3.10%	February 19, 2021	2026	350
Series 2016-2	3.05%	September 19, 2023	2028	1000
Series 2017-1	2.75%	November 23, 2022	2027	400
Trust Units Issued by Sun Life Capital Trust				
SLEECs - Series B	7.09%	June 30, 2032	Perpetual	200
Debt Securities Issued by Sun Life Capital Trust II				
SLEECs - Series 2009-1	5.86%	December 31, 2019	2108	500
Class A Preferred Shares Issued by SLF Inc.				
Series 1	4.75%	Any time	Perpetual	400
Series 2	4.80%	Any time	Perpetual	325
Series 3	4.45%	Any time	Perpetual	250
Series 4	4.45%	Any time	Perpetual	300
Series 5	4.50%	Any time	Perpetual	250
Series 8R ⁽²⁾	2.275%	June 30, 2020	Perpetual	130
Series 9QR ⁽³⁾	Floating	June 30, 2020 ⁽⁵⁾	Perpetual	150
Series 10R ⁽²⁾	2.842%	September 30, 2021	Perpetual	173
Series 11QR ⁽⁴⁾	Floating	September 30, 2021 ⁽⁵⁾	Perpetual	27
Series 12R ⁽²⁾	3.806%	December 31, 2021	Perpetual	300

(1) The earliest date on which the Company has the option, but not the obligation, to call securities for redemption at their par value.

(2) On the earliest redemption date and every five years thereafter, the dividend rate will reset to an annual rate equal to the 5-year Government of Canada bond yield plus a spread specified for each series. The specified spread for Class A shares is: Series 8R - 1.41%, Series 10R - 2.17% and Series 12R - 2.73%. On the earliest redemption date and every five years thereafter, holders will have the right, at their option, to convert their shares into the series that is one number higher than their existing series.

(3) Holders of Series 9QR Shares will be entitled to receive quarterly floating rate non-cumulative dividends at an annual rate equal to the then 3-month Government of Canada treasury bill yield plus 1.41%. Holders of the Series 9QR Shares will have the right, at their option, to convert their Series 9QR Shares into Series 8R Shares on June 30, 2020, and on June 30 every five years thereafter.

(4) Holders of Series 11QR Shares will be entitled to receive quarterly floating rate non-cumulative dividends at an annual rate equal to the then 3-month Government of Canada treasury bill yield plus 2.17%. Holders of the Series 11QR Shares will have the right, at their option, to convert their Series 11QR Shares into Series 10R Shares on September 30, 2021, and on September 30 every five years thereafter.

(5) Redeemable on the redemption date and every five years thereafter, in whole or in part, at par, and on any other date at \$25.50 per share.

The following table shows the number of common shares and stock options outstanding of SLF Inc. for the last two years.

Number of Common Shares Outstanding

(in millions)	2018	2017
Balance, beginning of year	610.5	613.6
Stock options exercised	0.4	0.4
Common shares repurchased and cancelled	(12.5)	(3.5)
Shares issued as consideration for business acquisition	0.1	—
Balance, end of year	598.5	610.5

Number of Stock Options Outstanding

(in millions)	2018	2017
Balance, beginning of year	3.0	3.4
Options issued	0.5	0.4
Options exercised, forfeited or expired	(0.4)	(0.8)
Balance, end of year	3.1	3.0

Under our Canadian Dividend Reinvestment and Share Purchase Plan (the “Plan”), Canadian-resident common and preferred shareholders may choose to have their dividends automatically reinvested in common shares of SLF Inc. and may also purchase common shares through the Plan with cash. For dividend reinvestments, we may, at our option, issue common shares of SLF Inc. from treasury at a discount of up to 5% to the volume-weighted average trading price or direct that common shares be purchased on behalf of participants on the open market through the TSX and alternative Canadian trading platforms (collectively, the “Exchanges”) at the market price. Common shares of SLF Inc. acquired by participants through optional cash purchases may also be issued from treasury or purchased through the Exchanges at SLF Inc.’s option, in either case at no discount. Commencing with the dividends payable on March 31, 2016 and until further notice, common shares purchased under the Plan were purchased on the open market. There are no applicable discounts because the common shares are being purchased on the open market and are not being issued from treasury.

SLF Inc. grants stock options to certain employees. These options are granted at the closing price of SLF Inc.’s common shares on the TSX on the grant date.

As at January 31, 2019, SLF Inc. had 597,163,466 common shares, 3,076,414 options to acquire SLF Inc. common shares and 92,200,000 Class A Shares outstanding.

2. Capital Adequacy

OSFI has indicated that it will review the effectiveness of the LICAT guideline and update it to keep abreast of development in the life insurance industry and evolving risk measurement and management practices

SLF Inc.

SLF Inc. is a non-operating insurance company and was subject to OSFI’s LICAT guideline as at December 31, 2018. In accordance with this guideline, SLF Inc. manages its capital in a manner commensurate with its risk profile and control environment, and SLF Inc.’s regulated subsidiaries comply with the capital adequacy requirements imposed in the jurisdictions in which they operate. SLF Inc.’s consolidated capital position is above its internal target. As at December 31, 2018, SLF Inc.’s LICAT ratio was 144%. For additional information, refer to section F - Financial Strength in this document.

Sun Life Assurance

Sun Life Assurance, SLF Inc.’s principal operating life insurance subsidiary in Canada, was subject to OSFI’s LICAT guideline as at December 31, 2018. The Company expects to maintain a LICAT ratio for Sun Life Assurance at or above 120%. With a LICAT ratio of 131% as at December 31, 2018, Sun Life Assurance’s capital ratio is well above OSFI’s supervisory ratio of 100% and regulatory minimum ratio of 90%. The LICAT guideline uses a risk-based approach for measuring specific life insurer risks and for aggregating the results to calculate the amount of a life insurer’s regulatory required capital to support these risks. Certain of these risk components, along with available capital, are sensitive to changes in equity markets and interest rates as outlined in the Risk Management section of this MD&A. For additional information, refer to section F - Financial Strength in this document.

The following table shows the components of Sun Life Assurance's LICAT ratio for 2018.

Sun Life Assurance LICAT Ratio

(\$ millions)	2018
Capital resources	
Retained earnings and contributed surplus	13,338
Adjusted accumulated other comprehensive income	1,405
Common and preferred shares	5,945
Innovative capital instruments and subordinated debt	849
Other	59
Less:	
Goodwill	2,552
Non-life investments and other	2,791
Available capital	16,253
Surplus allowance and eligible deposits	8,799
Total Capital resources	25,052
Capital requirements	
Credit, market and insurance risks	19,887
Less: Diversification and other credits	4,292
Segregated fund guarantee risk	983
Operational risk	1,646
Total before scalar	18,224
Base solvency buffer (Total before scalar x 1.05)	19,136
LICAT ratio	131%

Foreign Life Insurance Companies

Foreign subsidiaries and foreign operations of SLF Inc. must comply with local capital or solvency requirements in the jurisdictions in which they operate. Our operations maintained capital levels above the minimum local regulatory requirements during 2018. Additional information on capital and regulatory requirements for our foreign subsidiaries and foreign operations is provided in SLF Inc.'s AIF under the heading Regulatory Matters.

In the U.S., as at December 31, 2018, we have two internal reinsurance arrangements with affiliated reinsurance companies, in Delaware and Vermont, relating to our closed block of individual universal life insurance products with no-lapse guarantee benefits issued in the U.S. The Delaware reinsurance structure was established in 2013 and finances excess U.S. statutory reserves for certain universal life policies issued between January 2000 and February 2006. The financing of U.S. statutory reserve requirements in excess of those required under IFRS for the Delaware reinsurance company is supported by a guarantee from SLF Inc. The Vermont reinsurance structure was established in 2007 for certain policies issued between March 2006 and December 2008. Under the Vermont reinsurance structure, the related excess U.S. statutory reserve requirements are funded through a long-term financing arrangement established with an unrelated financial institution.

3. Shareholder Dividends

The declaration, amount and payment of dividends by SLF Inc. is subject to the approval of our Board of Directors and is dependent on our results of operations, our reported net income, financial condition, cash requirements and contractual restrictions. Capital management activities, as well as regulatory considerations and macro-economic factors including the economic outlook for the jurisdictions in which we do business, are also considered along with other factors. The Board of Directors reviews the level of dividends on a quarterly basis.

A regular and appropriate level of dividend payout and growth provides a stable source of return to common shareholders.

We target a dividend payout ratio of between 40% and 50% based on underlying net income, except where circumstances and the factors noted above would suggest a different ratio.

During 2018, our dividend payout ratio to common shareholders based on our reported net income was 46% and on an underlying net income basis was 39%.

SLF Inc. increased its common shareholders' dividend for the fourth quarter of 2018 to \$0.50. Total common shareholder dividends declared in 2018 were \$1.905 per share, compared to \$1.745 in 2017.

Dividends declared

Amount per share	2018	2017	2016
Common shares	1.905	1.745	1.620
Class A preferred shares			
Series 1	1.187500	1.187500	1.187500
Series 2	1.200000	1.200000	1.200000
Series 3	1.112500	1.112500	1.112500
Series 4	1.112500	1.112500	1.112500
Series 5	1.125000	1.125000	1.125000
Series 8R ⁽¹⁾⁽²⁾	0.568800	0.568800	0.568800
Series 9QR ⁽³⁾	0.656200	0.493900	0.476000
Series 10R ⁽¹⁾⁽⁴⁾	0.710500	0.710500	0.908900
Series 11QR ⁽⁵⁾	0.846200	0.683900	0.169000
Series 12R ⁽¹⁾⁽⁶⁾	0.951500	0.951500	1.062500

- (1) On the redemption date and every five years thereafter, the dividend rate will reset to an annual rate equal to the 5-year Government of Canada bond yield plus a yield specified for each series. The specified yield for Class A shares is: Series 8R - 1.41%, Series 10R - 2.17% and Series 12R - 2.73%. On the earliest redemption date and every five years thereafter, holders will have the right, at their option, to convert their shares into the series that is one number higher than their existing series.
- (2) The dividend rate was reset on June 30, 2015 to a fixed annual dividend rate of 2.275% until the redemption date June 30, 2020.
- (3) Holders of the Series 9QR Shares are entitled to receive quarterly floating rate non-cumulative dividends at an annual rate equal to the then 3-month Government of Canada treasury bill yield plus 1.41%. Holders of the Series 9QR Shares will have the right, at their option, to convert their Series 9QR Shares into Series 8R Shares on June 30, 2020 and on June 30 every five years thereafter.
- (4) The dividend rate was reset on September 30, 2016 to a fixed annual dividend rate of 2.842% until the redemption date September 30, 2021.
- (5) Holders of the Series 11QR Shares are entitled to receive quarterly floating rate non-cumulative dividends at an annual rate equal to the then 3-month Government of Canada treasury bill yield plus 2.17%. Holders of the Series 11QR Shares will have the right, at their option, to convert their Series 11QR Shares into Series 10R Shares on September 30, 2021 and on September 30 every five years thereafter.
- (6) The dividend rate was reset on December 31, 2016 to a fixed annual dividend rate of 3.806% until the redemption date December 31, 2021.

4. Principal Sources and Uses of Funds

Our primary source of funds is cash provided by operating activities, including premiums, investment management fees and net investment income. These funds are used primarily to pay policy benefits, dividends to policyholders, claims, commissions, operating expenses, interest expenses and shareholder dividends. Excess cash flows generated from operating activities are generally invested to support future payment requirements. We also raise funds from time to time, through borrowing and issuing of securities, to finance growth, acquisitions or other needs.

As at December 31, 2018, we maintained net cash, cash equivalents and short-term securities totaling \$9.4 billion. In addition to providing for near-term funding commitments, cash, cash equivalents and short-term securities include amounts that support short-term payment obligations.

Net cash, cash equivalents and short-term securities increased \$652 million in 2018. The below table outlines our principal sources and uses of cash.

(\$ millions)	2018	2017
Net cash provided by operating activities	3,834	1,984
Net cash provided by (used in) investing activities	(280)	(339)
Net cash provided by (used in) financing activities	(2,566)	(2,019)
Changes due to fluctuations in exchange rates	250	(179)
Increase (decrease) in cash and cash equivalents	1,238	(553)
Net cash and cash equivalents, beginning of year	5,956	6,509
Net cash and cash equivalents, end of year	7,194	5,956
Short-term securities, end of year	2,208	2,794
Net cash, cash equivalents and short-term securities, end of year	9,402	8,750

5. Liquidity

We generally maintain an overall asset liquidity profile that exceeds requirements to fund insurance contract liabilities under prescribed adverse liability demand scenarios. To strengthen our liquidity further, we actively manage and monitor our:

- capital levels
- asset levels
- matching position
- diversification and credit quality of investments
- cash forecasts and actual amounts against established targets

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.

SLF Inc. and its wholly-owned holding companies had \$2,523 million in cash and other liquid assets as at December 31, 2018. See section F - Financial Strength for more information.

We maintain various credit facilities for general corporate purposes, as set out in the table below. Unless otherwise noted, all amounts are in Canadian dollars.

(\$ millions)	December 31, 2018			December 31, 2017		
Credit Facility	Amount	Utilized	Expiry	Amount	Utilized	Expiry
Committed	US \$400	US \$ 2	2021	US \$400	US \$ 1	2021
Uncommitted	US \$100	US \$ 74	n/a	US \$100	US \$74	n/a
Uncommitted	\$225	\$110	n/a	\$225	\$93	n/a
Uncommitted	US \$ 25	US \$ 9	n/a	US \$ 25	US \$12	n/a

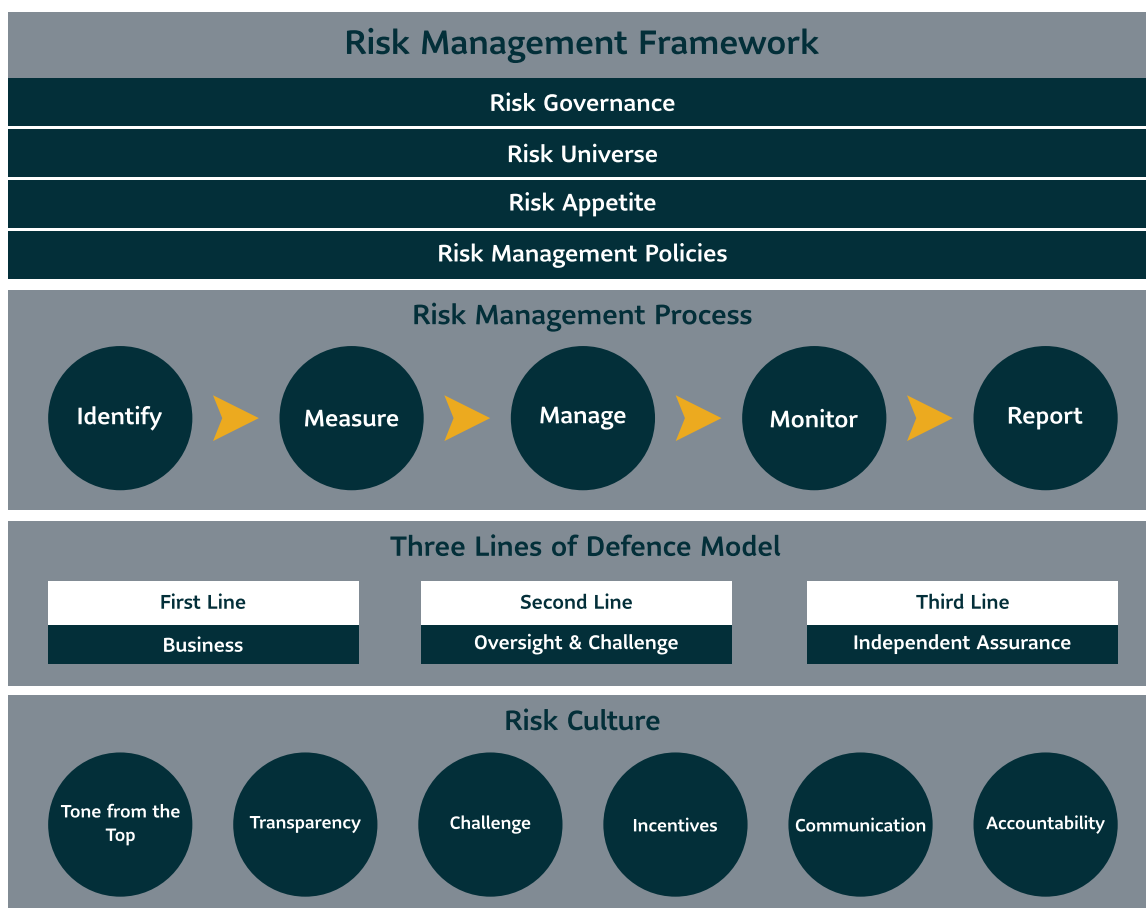
The agreement relating to our committed credit facility contains typical covenants for investment grade companies regarding solvency, credit ratings and financial strength, all of which were met as at December 31, 2018. These covenants include, but are not limited to, the maintenance of total equity by SLF Inc. of at least \$12 billion, tested as of the last day of each fiscal quarter. SLF Inc.'s total equity was \$24.6 billion as at December 31, 2018.

Our failure to comply with the covenants under the committed credit facility would, subject to grace periods in the case of certain covenants, result in an event of default. This could require us to repay any outstanding borrowings or to cash collateralize letters of credit under the facility. A failure by SLF Inc. (or any of its subsidiaries) to pay an obligation due for an amount exceeding \$250 million would also result in an event of default under the committed credit facility described above.

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.

1. Risk Management Framework

The Company has an established Risk Management Framework (“Risk Framework”) approved by the Board of Directors that prescribes a comprehensive set of protocols and programs that need to be followed in conducting business activities. The risks that arise when providing products and services to Clients, which are in line with our purpose to help our Clients achieve lifetime financial security and live healthier lives, are managed within these protocols and programs. Effective risk management is critical to the overall profitability, competitive market positioning and long-term financial viability of the Company. While all risk cannot necessarily be eliminated, the Risk Framework seeks to ensure that risks to a business undertaking are appropriately managed to achieve the Company’s business objectives over time and are not expected to exceed pre-established boundaries for risk taking. The Risk Framework, corporate strategy and business objectives are all aligned and risk management protocols and programs are embedded within every business segment.



Three Lines of Defence

The Company has adopted the Three Lines of Defence model to provide a consistent, transparent and clearly documented allocation of accountability and segregation of functional responsibilities. This segregation of responsibility helps to establish a robust control framework that promotes transparent and independent challenge of all risk taking activities, and encourages that all functions engage in self-critical examination to foster continuous improvement of the management of risk in our business.

The **first line of defence** (“**LOD**”) is represented by the business segment management who own the risks that are intrinsic to the business and have the primary responsibility to identify, measure, manage, monitor and report these risks. Some of the first LOD risk related responsibilities include:

- Management, mitigation and reporting on risk within their business operations;
- Accountability for business results and the risks taken to achieve those results;
- Identification of key and emerging risks; and
- Operating within risk appetite and according to risk management policies.

The **second line of defence** includes the Chief Risk Officer (“CRO”) and various functional heads who are responsible for providing independent oversight of our Company-wide risk management programs. The CRO is responsible for developing our Risk Framework and Risk Appetite Policy, and for overseeing the development and implementation of risk management strategies aimed at optimizing the risk-return profile of the Company. The CRO is supported by a network of business segment risk officers. The functional heads support the CRO in the implementation and communication of our Risk Framework and Risk Appetite Policy. Some of the key second LOD risk related responsibilities include:

- Establishment of the risk management framework and policies;
- Providing oversight, and challenge, of first line current and emerging risks; and
- Independent reporting to the Board of Directors on the level of risk against risk appetite.

The **third line of defence** responsibilities are distinct from first and second LOD responsibilities. The Internal Audit function is the third LOD and is responsible for providing independent assurance to management, the Risk & Conduct Review Committee and OSFI on the design and operational effectiveness of the risk management practices carried out by first LOD and second LOD. Internal Audit provides a quarterly opinion on the effectiveness of internal controls, risk management and governance processes to the Risk & Conduct Review Committee. In addition, the Risk & Conduct Review Committee may engage third-party independent reviews to supplement the third LOD review of the effectiveness of the Company's risk management programs.

2. Risk Universe

As a large financial services organization operating in a complex industry, the Company encounters a variety of risks. We are subject to financial and insurance risks that are connected to our liabilities and also in connection with the management and performance of our assets, including how we match returns from assets with the payment of liabilities to our Clients. We also face risks in formulating our business strategy and business objectives, in carrying on our business activities in the pursuit of our strategy and objectives, and from external factors such as changes in the economic, political, competitive and regulatory environments. The Risk Framework covers all risks and these have been grouped into six major categories: credit, market, insurance, business and strategic, operational and liquidity risks. The Risk Framework sets out the key risk management processes in the areas of risk: appetite, identification, measurement, management, monitoring and reporting. The Risk Framework sets out both qualitative and quantitative measures and processes to control the risk the Company will bear in respect of each of these categories of risk and in aggregate.

3. Risk Culture and Philosophy

Our Risk Framework recognizes the importance of risk culture in the effective management of the Company's risks. Risk culture relates to how we behave and respond, in addition to the requirements we set. It enables and rewards taking the right risks in an informed manner. It facilitates effective challenge and being transparent about risks and outcomes without fear of reprisal. It drives us to understand Client needs and preferences so that we can act in their best interests. Our risk culture is supported by a strong tone from the top which emanates from the Board of Directors and cascades through the Board Committees, our Chief Executive Officer ("CEO") and other executive officers, management and staff. A key premise of our risk management culture is that all employees have an important role to play in managing the Company's risks. In order to support employees in fulfilling their role, we have taken action to ensure our risk protocols and procedures are well defined and embedded in our day-to-day business activities, assess that appropriate resources and training are provided, establish and communicate a common risk philosophy and a high bar for integrity and conduct, and encourage every employee to openly identify risk exposures and communicate escalating risk concerns. The following six elements are foundational to our risk culture:

- Establishing tone from the top
- Encouraging transparency in risk-taking
- Performing effective challenge in conducting business decisions
- Aligning incentives and risk management practices
- Effectively communicating the risk culture expectations
- Establishing clear accountabilities

Our risk management program is embedded in the Company's culture, which encourages ownership and responsibility for risk management at all levels. Our compensation programs are aligned to the organization's risk management practices through our governance structure for the design and approval of incentive compensation plans and processes used to support the alignment of compensation and risk management. We continuously reinforce and embed the culture through communication and training on the risk culture elements at various forums and across various levels through training on the Code of Conduct annually, reinforcing accountability through performance reviews and compensation, and through defining roles, responsibilities and expectations in the risk management policies.

The Risk Framework sets out the Company's risk philosophy and includes the following core principles.

Strategic Alignment

Our corporate strategy and business objectives are required to be established within the boundaries set out in the Risk Framework and the Risk Appetite Policy. This requires us to consider whether a business activity will result in a risk profile that we are willing to accept and which we are prepared to manage. We have established a range of explicit risk appetite limits and control points for credit, market, insurance, operational and liquidity risks. Business and strategic risk is managed through our strategic and business planning process and controls over the implementation of these strategic and business plans. Risks associated with activities outside our risk appetite or outside the acceptable defined risks are avoided.

Stakeholder Interests

Our Risk Appetite Policy considers the interests of a large number of key stakeholders, including policyholders, shareholders, debt-holders, employees, regulators, distributors, rating agencies and other capital markets participants. The policy describes how to balance the needs, expectations, risk and reward perspectives, and investment horizons of these different stakeholders.

Effective risk management requires that objectives and incentives be aligned to ensure management's decisions are aligned with the Company's risk philosophy and risk appetite. To ensure this, the business plans and strategies are independently tested to ensure that they operate within the boundaries and requirements set out in the Risk Framework and the Risk Appetite Policy, and the results of this testing are reported to the Board of Directors. Compensation programs for employees are approved by the Board of Directors and the Board Committees and are aligned with the Company's risk philosophy, values, business and risk management strategies, and the long-term interests of stakeholders. In establishing annual performance objectives, we consider risk management goals to ensure that business decisions are consistent with the desired risk and return profile of the Company.

Capability Alignment

We seek out profitable risk-taking opportunities in those areas where we have established risk management skills and capabilities. Conversely, we endeavour to avoid or transfer risks that are beyond our risk-taking capability. Our ability to measure and evaluate risks, the quality of our risk governance and control environment, the depth and quality of our risk responses and the robustness of our pricing strategies are particularly important capabilities that we assess.

Portfolio Perspective

In evaluating a particular risk, consideration is given to a portfolio perspective of risk and return including the explicit recognition of the impacts of diversification and concentration and how different risks interact with each other. This perspective is extended to the development of risk mitigation and pricing strategies, recognizing that often the most cost-effective way of managing risk involves utilizing available relationships already inherent in our business.

Risk-Adjusted Returns

The financial return metrics which are used to assess business activities are required to be risk-adjusted. Financial return metrics are developed in consideration of the constraints set out in the Risk Appetite Policy, and reflect the expected costs of mitigation and the cost of risk capital required to support the risk taking activity.

4. Risk Appetite

Our Risk Appetite Policy defines the amount and type of risk we are willing to accept in pursuit of our business objectives, and is approved by the Board of Directors. It is forward-looking and our strategic plan, capital plan, business plan and business objectives are established within its boundaries.

The Company's risk appetite seeks to balance the various needs, expectations, risk and reward perspectives and investment horizons of key stakeholders. In particular, our risk appetite supports the pursuit of shareholder value while ensuring that the Company's ability to pay claims and fulfill policyholder commitments is not compromised.

The Company's risk appetite is the primary mechanism to communicate its risk philosophy and the boundaries of permissible risk-taking across the enterprise. It ensures that business activities are assessed against performance criteria that are appropriately risk-adjusted. Our risk appetite supports the objective of maintaining adequate capital, managing return on equity, managing earnings volatility, managing long-term profitability and managing liquidity. To accomplish this, our risk appetite includes a wide array of qualitative and quantitative standards that reflect the Company's overall risk management principles and values.

We generally accept diversifiable risks and utilize risk pooling to create portfolios with relatively low liability volatility. We take risk where we have internal expertise such as actuarial, underwriting, claims management, investment and distribution or where reinsurance partners are able to supplement our internal expertise. We prefer risks where it is possible to diversify across various segments including products, geographies, distribution channels or asset classes in order to maximize diversification opportunities.

Our Risk Appetite Policy sets out specific constraints which define the aggregate level of risk that the Company is willing to accept. We translate our risk appetite constraints into specific risk limits by risk class and business segment. Our risk profile is measured, managed and monitored regularly to ensure that we operate within our risk appetite. Our risk appetite limits are reviewed periodically to reflect the risks and opportunities inherent in our evolving business strategies and operating environment.

5. Risk Governance

Our Risk Framework sets out lines of responsibility and authority for risk-taking, governance and control. These governance requirements are summarized below.



Board of Directors

Our Board of Directors is ultimately responsible for ensuring the oversight of all risks across the enterprise and has primary responsibility for taking action to ensure risk management policies, programs and practices are in place. By approving our Risk Framework and the Risk Appetite Policy, and providing ongoing oversight of the risk management programs, the Board of Directors monitors that the principal risks are appropriately identified and managed. The Board of Directors oversees business and strategic risk through review and approval of the business and strategic plans, and regularly discusses key themes, issues and risks emerging in connection with the design or implementation of these plans. The Board of Directors also monitors risk management activities of our subsidiaries and risk posed to the Company through its joint venture arrangements.

The Risk & Conduct Review Committee is a standing committee of the Board of Directors whose primary functions are to assist the Board of Directors with oversight of the management of risk enterprise-wide and of the risk management function, to ensure that management has in place policies, processes and controls designed to identify and effectively manage the significant risks to which the Company is exposed and has sufficient capital to underpin those risks. The Committee regularly monitors that the risk profile is within the agreed risk appetite of the Company and that the Company's capital position is in compliance with regulatory capital requirements, and recommends to the Board for approval, and monitors, the specific risk limits allocated to the businesses and the annual Capital Plan. The Risk & Conduct Review Committee meets with senior business and functional leaders who have first-hand knowledge of risks and the risk management programs, oversees the effectiveness of the risk management function, and obtains reports from Internal Audit on the effectiveness of risk controls within the business and risk function. It reviews and approves all risk management policies and reviews compliance with those policies. In addition, where the Board of Directors has allocated oversight of specific risk management programs to other committees of the Board of Directors ("Board Committees"), the Risk & Conduct Review Committee is tasked with providing the Board of Directors with an integrated view of oversight of all risk management programs across all Board committees. The committee also oversees compliance with legal and regulatory requirements and the identification and management of compliance risk.

The Governance, Nomination & Investment Committee of the Board of Directors is responsible for assisting the Board of Directors in reviewing and monitoring the Company's Investment Plan and investment performance, overseeing investment practices, procedures and controls related to the management of the general fund investment portfolio and the Company's asset management businesses, and reviewing and approving transactions, either separately or jointly with the Risk & Conduct Review Committee, where the acquisition of individual investments for the General Account would, on their own, exceed certain limits or ranges in the Investment and Credit Risk Management Policy. In addition, the Committee is also responsible for developing effective corporate governance guidelines and processes including policies and processes to sustain ethical behaviour, and developing processes to assess the effectiveness of the Board of Directors and its Committees.

The Audit Committee of the Board of Directors is responsible for assisting the Board of Directors in overseeing the integrity of financial statements and related information provided to shareholders and others, compliance with financial regulatory requirements, adequacy and effectiveness of the internal controls implemented and maintained by management, and assessing the qualifications, independence and performance of the external auditor.

The Management Resources Committee of the Board of Directors is responsible for assisting the Board of Directors in ensuring we have the leadership resources for succession of senior executive positions and programs to effectively attract, retain, develop and reward executives for achieving our strategic objectives. The Management Resources Committee reviews the design, approval and governance of material incentive programs to align business objectives and incentives to ensure that these incentive programs do not encourage excessive risk taking, and reviews the implications of key enterprise risks, including human resources risks, on compensation design and human resources practices. In addition, the Management Resources Committee reviews and makes recommendations to the Board of Directors with respect to compensation matters, including the remuneration of executives who have a material impact on the risk exposure of the Company.

Senior Management Committees

The Executive Risk Committee (“ERC”) provides executive management oversight of the Company’s enterprise risk management activities. This includes the review and articulation of the risk appetite, review that the risk profile is within the agreed risk appetite, and review that there are policies, processes and controls in place to identify and effectively manage the significant risks, in accordance with the risk appetite and overall objective of promoting a balanced business and product model that will achieve agreed upon risk-adjusted returns and allocate capital accordingly.

The Investment & Credit Risk Committee is responsible for reviewing matters related to the management of the Company’s general fund assets which includes providing oversight and direction on the current and potential credit and investment risk exposures facing the Company and mitigating strategies to ensure that effective credit risk management practices and controls are in place.

The Corporate Asset Liability Management Committee is responsible for providing executive oversight and direction for the effective measurement, control and management of the market and liquidity risks in the design and operation of general fund investment strategies for efficiently discharging the Company’s general fund liabilities.

The Operational Risk & Compliance Committee is responsible for providing oversight of the Company’s operational and compliance risk management practices, current and emerging operational risk exposures, and the processes to ensure ongoing identification of major operational and compliance risks facing the Company.

The Insurance Risk Committee is responsible for providing oversight and direction on insurance risk exposures facing the Company and to ensure that effective insurance risk management practices and controls are in place.

Accountabilities

Primary accountability for risk management is delegated by the Board of Directors to our CEO, and the CEO further delegates responsibilities throughout the Company through management authorities and responsibilities. The CEO delegates accountability for risk management to our executive officers, who are accountable for ensuring the management of risk in the scope of their business accountability is in accordance with the Board-approved Risk Framework, Risk Appetite Policy and risk management policies.

6. Risk Management Policies

In order to support the effective communication, implementation and governance of our Risk Framework, we have codified our processes and operational requirements in a comprehensive series of risk management policies and operating guidelines. These policies and guidelines promote the application of a consistent approach to managing risk exposures across our global business platform. The Board of Directors and Board Committees regularly review and approve significant changes to the risk management policies and also regularly review management’s reporting and attestation on compliance to these policies.

7. Risk Management Process

The risk management process as set out in our Risk Framework is described below:

Risk Identification and Measurement

All business segments employ a common approach to identify and measure risks. Business segments have accountability for identifying and managing risks facing their business. We have a process to identify and monitor emerging risks that may have a material impact on our finances, operations or reputation. We evaluate potential correlations between various risk events and categories, and monitor emerging risks, regulatory and rating agency requirements, and industry developments.

Risk measurement involves determining and evaluating potential risk exposures, and includes a number of techniques such as monitoring key risk indicators, assessing probability and severity of risks, and conducting stress testing.

A robust stress testing program is an essential component of the Company’s Risk Framework used to measure, monitor and mitigate the Company’s risk exposures and ensure ongoing capital adequacy under plausible stress events. Stress testing is performed on key metrics such as earnings, regulatory capital ratios and liquidity to identify and monitor potential vulnerabilities to key risk drivers and ensure that the Company is operating within its risk appetite.

We develop and test a range of scenarios based on our internal assessment and regulatory guidance. Sensitivity testing is conducted on a regular basis and measures the earnings and regulatory capital impact from changes in underlying risk factors. Sensitivity testing is performed for individual risks and for consolidated risk exposures at different levels of stress and at various levels of aggregation. Scenario testing involves changes to a number of risk factors to assess the impact of and interaction between these risk factors. These scenarios include integrated scenario testing, reverse scenario testing and key assumption sensitivity testing. We also use the Dynamic Capital Adequacy Testing (“DCAT”) process, as required by our regulator, to project income and capital for a five-year period under plausible adverse scenarios.

Risk Management, Monitoring and Reporting

Risk management decisions are formed by evaluating how well the outcomes of the risk measurements and risk assessments for a business activity conform to our risk appetite, including an assessment of risk-adjusted return.

Monitoring processes include oversight by the Board of Directors, which is exercised through Board Committees and senior management committees described in the section of this MD&A under the heading Risk Governance.

Senior management committees, Board Committees and the Board of Directors regularly review reports that summarize our risk profile, including the exposures across our principal risks including any changes in risk trends and emerging risks. These committees also review the effectiveness of the mitigation strategies presented in the reports. On a regular basis, the Board of Directors and the Board Committees review and approve any significant changes to key policies for the management of risk and review compliance with these policies.

8. Risk Categories

The shaded text and tables in the following section of this MD&A represent our disclosure on credit, market and liquidity risks in accordance with IFRS 7 *Financial Instruments - Disclosures* and includes a discussion on how we measure risk and our objectives, policies and methodologies for managing these risks. The shaded text and tables represent an integral part of our audited annual Consolidated Financial Statements for the year ended December 31, 2018. The shading in this section does not imply that these disclosures are of any greater importance than non-shaded tables and text, and the Risk Management disclosure should be read in its entirety. This information should be considered carefully together with other information in this MD&A and in our 2018 AIF, our 2018 Consolidated Financial Statements and other reports and materials that we file with securities regulators.

In this section, segregated funds include segregated fund guarantees, variable annuities and investment products, and includes Run-off reinsurance in our Corporate business segment.

Our Risk Framework has grouped all risks into six major risk categories: credit, market, insurance, business and strategic, operational and liquidity risks.

i. 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 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 & Conduct Review 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 DCAT, 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.

Our core principles of credit risk management include asset diversification, fundamental research and analysis of cash flows, proactive and continuous risk monitoring, active management and relative value assessment, all with the objective of optimizing risk-adjusted returns, with due consideration for the impacts of capital and taxation.

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.

Additional information on credit risk can be found in Note 6 to our 2018 Annual Consolidated Financial Statements and in the Risk Factors section in the AIF.

ii. 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 and foreign currency 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 & Conduct Review 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 DCAT, 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.

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 contracts. These benefit guarantees may be triggered upon death, maturity, withdrawal or annuitization. The cost of providing for these guarantees is uncertain, and will depend upon a number of factors including general capital market conditions, underlying fund performance, policyholder behaviour, and mortality experience, which may result in negative impacts on our 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.

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 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.

A sustained low interest rate environment may adversely impact our earnings, regulatory capital requirements and our ability to implement our business strategy and plans in several ways, including:

- Lower sales of certain insurance and wealth products, which can in turn pressure our operating expense levels;
- Shifts in the expected pattern of redemptions (surrenders) on existing policies;
- Higher new business strain reflecting lower new business profitability;
- Reduced return on new fixed income asset purchases, and higher hedging costs;
- The impact of changes in actuarial assumptions;
- Impairment of goodwill; and
- Additional valuation allowances against our deferred tax assets.

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⁽¹⁾ 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 Additional Cautionary Language and Key Assumptions Related to Sensitivities in this section for important additional information regarding these estimates.

The market value of our investments in fixed income and equity securities fluctuates based on movements in interest rates and equity markets. The market value of fixed income assets designated as AFS that are held primarily in our surplus segment increases with declining interest rates and decreases with rising interest rates. The market value of equities designated as AFS and held primarily in our surplus segment increases with rising equity markets and decreases with declining equity markets. Changes in the market value of AFS assets flow through OCI and are only recognized in net income when realized upon sale, or when considered impaired. The amount of realized gains (losses) recorded in net income in any period is equal to the unrealized gains (losses) or OCI position at the start of the period plus the change in market value during the current period up to the point of sale for those securities that were sold during the period. The sale or impairment of AFS assets held in surplus can therefore have the effect of modifying our net income sensitivity.

We realized \$25 million (pre-tax) in net gains on the sale of AFS assets during the fourth quarter of 2018 and \$121 million in 2018 (\$25 million pre-tax in the fourth quarter of 2017, and \$195 million in 2017). The net unrealized (losses) gains or OCI position on AFS fixed income and equity assets were \$(98) million and \$43 million, respectively, after-tax as at December 31, 2018 (\$171 million and \$175 million, respectively, after-tax as at December 31, 2017).

(1) Net income refers to common shareholders' net income in section J - Risk Management in this document.

Equity Market Sensitivities

The following table sets out the estimated immediate impact on, or sensitivity of, our net income and OCI and Sun Life Assurance's LICAT ratio to certain instantaneous changes in equity market prices as at December 31, 2018 and December 31, 2017.

As at December 31, 2018

(\$ 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
Potential impact on LICAT ⁽²⁾⁽⁴⁾	2.0% point decrease	1.0% point decrease	0.5% point increase	1.0% point increase

As at December 31, 2017

(\$ 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	\$ 300
Potential impact on OCI ⁽³⁾	\$ (200)	\$ (50)	\$ 50	\$ 200
Potential impact on LICAT ⁽²⁾⁽⁴⁾	n/a	n/a	n/a	n/a

⁽¹⁾ Represents the respective change across all equity markets as at December 31, 2018 and December 31, 2017. 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, 2018 and December 31, 2017, and include new business added and product changes implemented prior to such dates.

⁽³⁾ Net income and OCI sensitivities have been rounded to the nearest \$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 LICAT sensitivities illustrate the impact on Sun Life Assurance as at December 31, 2018. LICAT ratios are not applicable before January 1, 2018. LICAT ratios are rounded to the nearest 0.5%.

Interest Rate Sensitivities

The following table sets out the estimated immediate impact on, or sensitivity of, our net income and OCI and Sun Life Assurance's LICAT ratio to certain instantaneous changes in interest rates as at December 31, 2018 and December 31, 2017.

Sun Life Assurance's LICAT ratio decreases with rising interest rates and increases with declining interest rates, which is opposite to our net income sensitivity. Increases to interest rates will reduce the value of our assets and margins in our actuarial liabilities, resulting in a lower LICAT ratio (LICAT includes the change in OCI associated with assets designated as AFS). On adoption of LICAT, given the change in the sensitivity profile, the ranges of sensitivities were reviewed and updated accordingly.

(\$ millions, unless otherwise noted)	As at December 31, 2018		As at December 31, 2017	
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⁾	\$ (100)	\$ 50	\$ (100)	\$ 50
Potential impact on OCI ⁽³⁾	\$ 250	\$ (250)	\$ 250	\$ (250)
Potential impact on LICAT ⁽²⁾⁽⁵⁾	2.5% point increase	1.5% point decrease	n/a	n/a

⁽¹⁾ Interest rate sensitivities assume a parallel shift in assumed interest rates across the entire yield curve as at December 31, 2018 and December 31, 2017 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, 2018 and December 31, 2017, and include new business added and product changes implemented prior to such dates.

⁽³⁾ Net income and OCI sensitivities have been rounded to the nearest \$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.

⁽⁵⁾ The LICAT sensitivities illustrate the impact on Sun Life Assurance as at December 31, 2018. LICAT ratios are not applicable before January 1, 2018. LICAT ratios are rounded to the nearest 0.5%.

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, 2018. 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.

Our OCI sensitivity to changes in equity markets has decreased over 2018 due primarily to equity sales.

Interest rate sensitivities do not include any impact from changes to the ASB promulgated URR. In 2014, ASB made changes to the Canadian actuarial standards of practice with respect to economic reinvestment assumptions used in the valuation of insurance contract liabilities. The changes relate to assumed future interest rates, credit spreads and the use of non-fixed income assets supporting fixed obligations. When the ASB promulgated these changes, the intention was to review these assumptions every five years, or sooner if circumstances warrant. The last update to the URR was a 10 basis point reduction in 2017. Given the continuing low interest rates, we expect the ASB will revisit the reinvestment assumptions in 2019, but the magnitude of any potential changes due to the promulgation remains uncertain. Based on current assumptions, as at December 31, 2018, our estimated sensitivity to a 10 basis point decrease in the URR would have been a decrease in reported net income of approximately \$75 million. The actual impact could differ from the Company's estimate. The statements concerning expected URR changes are forward-looking.

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.

(\$ 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, 2018	\$ (75)	\$ 75	\$ 25	\$ (25)
December 31, 2017	\$ (100)	\$ 100	\$ 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 to the nearest \$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

Market risk is managed at all stages during the product life cycle including product design and development, ongoing review and positioning of our suite of products, and ongoing asset-liability management and hedge re-balancing.

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 over-the-counter derivatives could impose additional costs and could affect our hedging strategy. In addition, these programs may themselves expose us to other risks.

Our market risk management strategies are developed based on policies and operating guidelines at the enterprise level, business segment level and product level. Liabilities having a similar risk profile are grouped together and a customized investment and hedging strategy is developed and implemented to optimize return within our risk appetite limits.

In general, market risk exposure is mitigated by the assets supporting our products. This includes holdings of fixed income assets such as bonds and mortgages. Derivative instruments may supplement these assets to reduce the risk from cash flow mismatches and mitigate the market risk associated with liability features and optionality. The following table sets out the use of derivatives across a number of our products as at December 31, 2018.

Asset-Liability Management Applications for Derivative Usage

The primary uses of derivatives are set out in the table below.

Products/Application	Uses of Derivative	Derivatives Used
General asset-liability management - interest rate risk exposure for most insurance and annuity products	To manage the sensitivity of the duration gap between assets and liabilities to interest rate changes	Interest rate swaps, swaptions, floors and bond futures
Guarantees on insurance and annuity contracts - minimum interest rate guarantees, guaranteed surrender values and guaranteed annuitization options	To limit potential financial losses from significant reductions in asset earned rates relative to contract guarantees	Interest rate swaps, swaptions, floors and bond futures.
Segregated fund guarantees	To manage the exposure of product guarantees sensitive to movement in equity market and interest rate levels and currency fluctuations	Put options, call options, futures and swaps on equity indices, interest rate swaps and bond futures, and foreign exchange forwards
Currency exposure in relation to asset-liability management	To reduce the sensitivity to currency fluctuations by matching the value and cash flows of specific assets denominated in one currency with the value and cash flows of the corresponding liabilities denominated in another currency	Currency swaps and forwards
Credit exposure	To replicate credit exposures and enhance investment returns	Credit default swaps

General Account Insurance and Annuity Products

Most of our expected sensitivity to changes in interest rates and about two-thirds of our expected sensitivity to changes in equity markets are derived from our general account insurance and annuity products. We have implemented market risk management strategies to mitigate a portion of the market risk related to our general account insurance and annuity products.

Individual insurance products include universal life and other long-term life and health insurance products. Major sources of market risk exposure for individual insurance products include the reinvestment risk related to future premiums on regular premium policies, asset reinvestment risk on both regular premium and single premium policies and the guaranteed cost of insurance. Interest rate risk for individual insurance products is typically managed on a duration basis, within tolerance ranges set out in the applicable investment policy or guidelines. Targets and limits are established so that the level of residual exposure is commensurate with our risk appetite. Exposures are monitored frequently, and assets are re-balanced as necessary to maintain compliance within policy limits using a combination of assets and derivative instruments. A portion of the longer-term cash flows are backed with equities and real estate.

For participating insurance products and other insurance products with adjustability features, the investment strategy objective is to provide a total rate of return given a constant risk profile over the long term.

Fixed annuity products generally provide the policyholder with a guaranteed investment return or crediting rate. Interest rate risk for these products is typically managed on a duration basis, within tolerance ranges set out in the applicable investment guidelines. Targets and limits are established such that the level of residual exposure is commensurate with our risk appetite. Exposures are monitored frequently, and are re-balanced as necessary to maintain compliance within prescribed tolerances using a combination of fixed income assets and derivative instruments.

Certain insurance and annuity products contain minimum interest rate guarantees. Market risk management strategies are implemented to limit potential financial loss due to reductions in asset earned rates relative to contract guarantees. These typically involve the use of hedging strategies utilizing interest rate derivatives such as interest rate floors, swaps and swaptions.

Certain insurance and annuity products contain features which allow the policyholders to surrender their policy at book value. Market risk management strategies are implemented to limit the potential financial loss due to changes in interest rate levels and policyholder behaviour. These typically involve the use of hedging strategies such as dynamic option replication and the purchase of interest rate swaptions.

Certain products have guaranteed minimum annuitization rates. Market risk management strategies are implemented to limit the potential financial loss and typically involve the use of fixed income assets, interest rate swaps, and swaptions.

Segregated Fund Guarantees

Approximately one-third of our equity market sensitivity and a small amount of interest rate risk sensitivity as at December 31, 2018 are derived from segregated fund products. These products provide benefit guarantees, which are linked to underlying fund performance and 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.

The following table provides information with respect to the guarantees provided for our segregated fund products.

Segregated Fund Risk Exposures (\$ millions)

December 31, 2018

	Fund value	Amount at Risk ⁽¹⁾	Value of guarantees ⁽²⁾	Insurance contract liabilities ⁽³⁾
SLF Canada	11,202	792	10,742	552
SLF Asia ⁽⁴⁾	2,798	444	3,165	147
Run-off reinsurance ⁽⁵⁾	2,215	277	1,219	255
Total	16,215	1,513	15,126	954

December 31, 2017

	Fund value	Amount at Risk ⁽¹⁾	Value of guarantees ⁽²⁾	Insurance contract liabilities ⁽³⁾
SLF Canada	12,448	315	10,875	399
SLF Asia ⁽⁴⁾	3,727	250	3,755	107
Run-off reinsurance ⁽⁵⁾	2,534	375	1,546	385
Total	18,709	940	16,176	891

- (1) The Amount at Risk represents the excess of the value of the guarantees over fund values on all policies where the value of the guarantees exceeds the fund value. The Amount at Risk is not currently payable as the guarantees are only payable upon death, maturity, withdrawal or annuitization if fund values remain below guaranteed values.
- (2) For guaranteed lifetime withdrawal benefits, the value of guarantees is calculated as the present value of the maximum future withdrawals assuming market conditions remain unchanged from current levels. For all other benefits, the value of guarantees is determined assuming 100% of the claims are made at the valuation date.
- (3) The insurance contract liabilities represent management's provision for future costs associated with these guarantees and include a provision for adverse deviation in accordance with Canadian actuarial standards of practice.
- (4) Effective January 1, 2018, we transferred our International business unit from SLF U.S. to SLF Asia, and balances in 2018 have been changed to conform with the current year presentation. For further information, see section G - Performance by Business Group.
- (5) The Run-off reinsurance business includes risks assumed through reinsurance of variable annuity products issued by various North American insurance companies between 1997 and 2001. This line of business is part of a closed block of reinsurance, which is included in the Corporate segment.

The movement of the items in the table above from December 31, 2017 to December 31, 2018 primarily resulted from the following factors:

- the total fund values decreased due to a decline in equity markets and net redemptions from products closed to new business, which was partially offset by the weakening of the Canadian dollar against the U.S. dollar;
- the total amount at risk increased due to a decline in equity markets and the weakening of the Canadian dollar against the U.S. dollar, which was partially offset by net redemptions from products closed to new business;
- the total value of guarantees decreased due to net redemptions from products closed to new business, which was partially offset by the weakening of the Canadian dollar against the U.S. dollar; and
- the total insurance contract liabilities increased due to a decline in equity markets and the weakening of the Canadian dollar against the U.S. dollar, which was partially offset by net redemptions from products closed to new business.

Segregated Fund Hedging

Our hedging programs use derivative instruments to mitigate the interest and equity related exposure of our segregated fund contracts. As at December 31, 2018, over 90% of our segregated fund contracts, as measured by associated fund values, were included in a hedging program. While a large percentage of contracts are included in the hedging program, not all of our market risk exposure related to these contracts is hedged. For those segregated fund contracts included in the hedging program, we generally hedge the value of expected future net claims costs and associated margins.

The following table illustrates the impact of our hedging program related to our sensitivity to a 50 basis point decrease in interest rates and a 10% and 25% decrease in equity markets for segregated fund contracts as at December 31, 2018 and December 31, 2017.

Impact of Segregated Fund Hedging (\$ millions)

December 31, 2018

(\$ millions)	Changes in interest rates ⁽³⁾		Changes in equity markets ⁽⁴⁾	
	50 basis point decrease		10% decrease	25% decrease
Net income sensitivity ⁽¹⁾⁽²⁾				
Before hedging	(150)		(150)	(450)
Hedging impact	150		100	350
Net of hedging	—		(50)	(100)

December 31, 2017

(\$ millions)	Changes in interest rates ⁽³⁾		Changes in equity markets ⁽⁴⁾	
	50 basis point decrease		10% decrease	25% decrease
Net income sensitivity ⁽¹⁾⁽²⁾				
Before hedging	(200)		(150)	(450)
Hedging impact	200		100	350
Net of hedging	—		(50)	(100)

(1) Net income sensitivities have been rounded to the nearest \$50 million.

(2) Since the fair value of benefits being hedged will generally differ from the financial statement value (due to different valuation methods and the inclusion of valuation margins in respect of financial statement values), this will result in residual volatility to interest rate and equity market shocks in net income and capital. The general availability and cost of these hedging instruments may be adversely impacted by a number of factors, including volatile and declining equity and interest rate market conditions.

(3) Represents a parallel shift in assumed interest rates across the entire yield curve as at December 31, 2018 and December 31, 2017, with no change to the ASB promulgated 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).

(4) Represents the change across all equity markets as at December 31, 2018 and December 31, 2017. 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).

Our hedging strategy is applied both at the line of business or product level and at the Company level using a combination of longer-dated put options and dynamic hedging techniques (i.e., frequent re-balancing of short-dated interest rate and equity derivative contracts). We actively monitor our overall market exposure and may implement tactical hedge overlay strategies in order to align expected earnings sensitivities with risk management objectives.

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 direct 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. An instantaneous 10% decrease in the value of our direct real estate investments as at December 31, 2018 would decrease net income⁽¹⁾ by approximately \$275 million (\$250 million decrease as at December 31, 2017). Conversely, an instantaneous 10% increase in the value of our direct real estate investments as at December 31, 2018 would increase net income by approximately \$275 million (\$250 million increase as at December 31, 2017).

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 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, 2018 and December 31, 2017, 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.

(1) Net income sensitivities have been rounded to the nearest \$25 million.

Additional Cautionary Language and Key Assumptions Related to Sensitivities

Our market risk sensitivities are measures of our estimated change 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, 2017 have been included for comparative purposes only.

We have also provided measures of our net income sensitivity to instantaneous changes in credit spreads, swap spreads, real estate price levels, and capital sensitivities to changes in interest rates and equity price levels. The real estate sensitivities are non-IFRS financial measures. For additional information, see section L - Non-IFRS Financial Measures in this document. The cautionary language which appears in this section is also applicable to the credit spread, swap spread, real estate, and LICAT ratio sensitivities. In particular, these sensitivities are based on interest rates, credit and swap spreads, equity market, and real estate price levels as at the respective calculation dates and assume that all other risk variables remain constant. Changes in interest rates, credit and swap spreads, equity market, and real estate prices in excess of the ranges illustrated may result in other-than-proportionate impacts.

As these market risk sensitivities reflect an instantaneous impact on net income, OCI and Sun Life Assurance's LICAT ratio, they do not include impacts over time such as the effect on fee income in our asset management businesses.

The sensitivities reflect the composition of our assets and liabilities as at December 31, 2018 and December 31, 2017, 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 December 31 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, 2018 and December 31, 2017, as applicable. Changes in the regulatory environment, accounting or actuarial valuation methods, models, or assumptions (including changes to the ASB promulgated URR) 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.

Our hedging programs may themselves expose us to other risks, including basis risk (i.e., the risk that hedges do not exactly replicate the underlying portfolio experience), volatility risk, derivative counterparty credit risk, and increased levels of 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 (e.g., hedge counterparty credit risk is managed by maintaining broad diversification, dealing primarily with highly rated counterparties, and transacting through over-the-counter contracts cleared through central clearing houses, exchange-traded contracts or bilateral over-the-counter contracts negotiated directly between counterparties that include credit support annexes), residual risk, potential reported earnings and capital volatility remain.

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 impact will be consistent with the estimates provided.

Information related to market risk sensitivities and guarantees related to segregated fund products should be read in conjunction with the information contained in the sections in this MD&A under the section M - Accounting and Control Matters - 1 - Critical Accounting Policies and Estimates. Additional information on market risk can be found in Note 6 of our 2018 Annual Consolidated Financial Statements and the Risk Factors section in the AIF.

iii. 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 & Conduct Review Committee.

- Risk appetite limits have been established for policyholder behaviour, mortality and morbidity, and longevity risks.
- Income and regulatory capital sensitivities are monitored, managed and reported against pre-established risk limits.
- 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 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.
- The Insurance Risk Policy and Investment and Credit Risk Management 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 & Conduct Review 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 DCAT, 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.

We use reinsurance to limit losses, minimize exposure to significant risks and to provide additional capacity for growth. 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 our retention limit is \$25 in Canada and is US\$25 million outside of Canada. For survivorship life insurance, our maximum global retention limit is \$30 in Canada and is US\$30 million 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.

Policyholder Behaviour Risk

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.

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 monitored to review and update policyholder behaviour assumptions as needed which could result in updates to policy liabilities.

Mortality and Morbidity Risk

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, 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.

The risk of adverse morbidity experience also increases during economic slowdowns, especially with respect to disability coverages, as well as with 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. External factors including medical advances could adversely affect our life insurance, health insurance, critical illness, disability, long-term care insurance and annuity businesses.

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 & Conduct Review 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.

Longevity Risk

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 (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.

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.

Product Design and Pricing Risk

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.

Our Product Design and Pricing Policy, approved by the Risk & Conduct Review 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, and 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.

Expense Risk

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.

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.

Reinsurance Risk

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 an increased possibility of rate increases or renegotiation of legacy reinsurance contracts by our reinsurers, as the global reinsurance industry continues 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.

We have an Insurance Risk Policy and an Investment and Credit Risk Management Policy approved by the Risk & Conduct Review Committee, which set acceptance criteria and processes to monitor the level of reinsurance ceded to any single reinsurer or group of reinsurers. 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 & Conduct Review Committee.

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

Additional information on insurance risk can be found in Note 7 to our 2018 Annual Consolidated Financial Statements and in the Risk Factors section in the AIF.

iv. Business and Strategic Risk

Risk Description

Business and strategic risk includes risks related to changes in the economic or political environment, changes in distribution channels or Client behaviour, changes in the competitive environment, risks relating to the design or implementation of our business strategy, changes in the legal or regulatory environment and changes to environmental events and developments.

Business and Strategic Risk Management Governance and Control

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

- Business and strategic risk governance practices are in place, including independent monitoring and review and reporting to senior management, the Board of Directors and the Board Committees.
- Business and strategic risk is managed through our strategic and business planning process and controls over the implementation of these plans. These plans are reviewed and discussed by our Executive Team and the key themes, issues and risks emerging are discussed by the Board of Directors and the Board Committees.
- Our business and strategic plans are subject to approval by the Board of Directors, which also receives regular reviews of implementation progress against key business plan objectives.
- Comprehensive policies including the Risk Framework, Risk Appetite Policy, Product Design and Pricing Policy, and Capital Risk Policy are in place.
- Our corporate strategy and business objectives are established within the boundaries of the Risk Appetite Policy. Our business strategies and plans are designed to align with our risk appetite, our capital position and our financial performance objectives.
- Our risk appetite is periodically assessed, taking into consideration the economic and regulatory environments in which we operate.
- Merger, acquisition and divestiture transactions are governed by a Board-approved risk management policy and significant transactions require the approval of the Board of Directors.
- Stress-testing techniques, such as DCAT, are used to measure the effects of large and sustained adverse scenarios.
- Key and emerging risks are identified, monitored and reported, including emerging regulatory changes that may have a material impact on our finances, operations or reputation.
- 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 business and strategic risks are discussed below in further detail.

Economic and Political Risk

We operate in various geographies and our business and financial operations are susceptible to regional and global economic, political and regulatory changes. We may be affected by economic and capital markets conditions and economic shocks around the globe as a result of increasingly connected global markets. Factors such as changes in interest rates, foreign exchange rates, market volatility, housing prices, consumer spending, saving and debt, business investment and inflation around the globe can affect the business and economic environments in which we operate. Continued economic and political uncertainty may give rise to increased business and strategic risks including those associated with industry restructuring, mergers and acquisitions, changing competitive dynamics and changes in the legal, regulatory and tax regimes in which our businesses operate. In addition, adverse economic conditions often arise in conjunction with volatile and deteriorating capital markets conditions, which can have an adverse impact on Client behaviour and in turn on our sales and profitability, credit and financial strength ratings, and capital and liquidity positions.

Implementation of Business Strategy

Our business strategies and plans are dependent on the successful execution of organizational and strategic initiatives designed to support the growth of our business. Our ability to manage the execution of these initiatives effectively and prioritize initiatives directly affects our ability to execute our strategies. Identifying and implementing the right set of initiatives is critical to achieving our business plan targets. Failure to implement these initiatives could also lead to cost structure challenges.

Distribution Risk

Failure to achieve planned distribution scale or appropriate and compliant distribution of products could materially impact our financial and strategic objectives. This includes the inability to attract and retain intermediaries and agents at a cost that is financially feasible to the Company, or to develop digital sales and Client support capabilities and technologies. Distribution risk may also be influenced where our distribution or product strategy and related services (including digital sales and Client support capabilities and technologies) are not developed, modified or executed in line with our strategic objectives or in consideration of the changes in Client behaviour or our regulatory environment. In addition, the lack of a well-diversified distribution model in the jurisdictions in which we do business may cause over-reliance on agency channel or key partners.

Competition Risk

Competition from insurance companies, banks, asset managers, mutual fund companies, financial planners and other service providers (including new entrants and non-traditional financial services companies) is intense, and could adversely affect our business in certain countries.

The businesses in which we engage are highly competitive and our ability to sell our products is dependent on many factors, including scale, price and yields offered, distribution channels, digital capabilities, financial strength ratings, range of product lines and product quality, brand strength, investment performance, historical dividend levels and the ability to provide value added services to distributors and Clients. In certain markets, some of our competitors may be superior to us on one or more of these factors. Our competitors have significant potential to disrupt our business through targeted strategies to reduce our market share which may include targeting our key people or bancassurance partners and other distributors or aggressively pricing their products. Our ability to achieve our business plans and strategies depends significantly upon our capacity to anticipate and respond quickly to these competitive pressures.

Technology is driving rapid change in the financial services sector and is enabling new entrants to compete or offer services to our competitors to enhance their ability to compete in certain segments of the insurance, wealth and asset management markets. The emergence of new technologies such as robotic process automation, artificial intelligence, blockchain and advanced analytics may have an impact on the financial services sector and how companies interact with their stakeholders. Our current competitors or new entrants may use these or other new technologies to provide services in various areas such as customized pricing, proactive outreach to Clients and targeted marketing in order to strengthen their Client relationships and influence Client behaviour. The impact of disruption from changing technology and innovation by traditional and non-traditional competitors who may offer a better user experience, functionality or lower priced products and may have lower distribution costs will require us to adapt at a more rapid pace and may create margin pressures. The risk of disruption may also impact our distribution models as new and low cost digital-based business models emerge in connection with the distribution of financial services and products, such as insurtechs and robo-advisors. These risks are evolving rapidly with an increasing number of digital users and are difficult to anticipate and respond to proactively, and may adversely impact our profitability and financial position.

Investment Performance

Investment performance risk is the possibility that we fail to achieve the desired return objectives on our investment portfolio, or that our asset management businesses fail to design or execute investment strategies in order to achieve competitive returns on the products and managed accounts offered by these businesses. Failure to achieve investment objectives may adversely affect our revenue and profitability through slower growth prospects and adverse impacts on policyholder or Client behaviour.

Changes in Legal and Regulatory Environment

Most of our businesses are subject to extensive regulation and supervision. Changes to legislation, regulations or government policies, or the manner in which they are interpreted or enforced, may require that we make significant changes to our strategy, may result in increased implementation costs and diversion of resources to manage the change, could impact financial reporting, accounting processes and capital requirements, and could impact the ability of sales intermediaries to distribute our products, all of which could have an adverse effect on our business and operations. Our failure to comply with existing and evolving regulatory requirements could also result in regulatory sanctions and could affect our relationships with regulatory authorities and our ability to execute our business strategies and plans.

These changes could impact our capital requirements, the regulatory framework for our products and services, the regulation of selling practices, sales intermediaries (such as bancassurance) and product offerings (such as prescription drugs), solvency requirements, executive compensation, corporate governance practices and could impose restrictions on our foreign operations, which may include changes to the limits on foreign ownership of local companies.

Environmental Risk

Our financial performance may be adversely affected if we do not adequately prepare for the direct or indirect negative impacts of environmental events and developments, including those related to physical impacts of climate change and the shift towards a lower-carbon economy. These events and developments may include increased frequency and severity of natural or human-made environmental disasters, and emerging regulatory and public policy developments, and their impacts on our operations, invested assets, suppliers and Clients. External factors such as stakeholder expectations around environmental performance, resource constraints, impact of climate change and costs associated with adaptation are also potential sources of environmental risk. These risks may also affect our Clients and our suppliers, which could have a negative impact on our operations and performance. Further, an environmental issue on a property owned, leased or managed by us or on any property with which we are affiliated could have financial or reputational impacts.

A transition to a low carbon economy could affect public and private fixed income asset values. Existing portfolio investments in coal, oil sands producers, and related industries, such as railways and pipelines, may pose economic and headline risk as a result of the observed transition away from carbon-intensive industries related to changing climate.

We maintain an environmental risk management program to help protect investment assets (primarily real estate, mortgage and certain private fixed income assets) from losses due to environmental issues and to help ensure compliance with applicable laws. An important aspect of the program is an assessment of new investment assets for existing and potential environmental risks. Additionally, all employees who are involved in underwriting and asset management investments in real estate and private debt secured by real estate, complete environmental training and provide annual sign-off on compliance with the Company's environmental guidelines. We have programs in place across our real estate portfolio to identify and mitigate environmental risks, to conserve energy and to reduce waste and we maintain insurance policies to cover certain environmental risks on owned assets. Environmental factors are incorporated into initial and ongoing reviews and assessments of public fixed income, private fixed income, real estate and commercial mortgage investments and this is overseen by our Sustainable Investment Council. Our cross-functional North American Investments Environmental Committee works to identify and assess environmental risks across our investment assets. Our International Sustainability Council convenes on broader environmental and sustainability issues. We report on environmental management annually in our Sustainability Report reviewed by the Governance, Nomination & Investment Committee.

International Operations

The future success of our businesses in our international operations depends in large part on our ability to grow and compete in the markets where we operate. Challenges in these markets pose strategic and execution risk including our ability to attract and retain qualified employees and executives with local experience and critical skills, political, legal, economic, competition or other risks, risks associated with joint venture operations, developing and executing our risk management practices, and our ability to attract, retain, expand and diversify distribution channels.

Mergers, Acquisitions, Strategic Investments and Divestitures

We regularly explore opportunities to selectively acquire other businesses or to divest ourselves of all or part of certain businesses, in support of our growth and strategic objectives. These transactions introduce the risk of financial loss due to a potential failure to achieve the expected financial or other strategic objectives. There is a risk that we may be unable to make an appropriate acquisition in a desired market or business line or are unable to realize the financial and strategic benefits of the transactions due to competitive factors, regulatory requirements or other factors. These risks could adversely impact our ability to achieve our financial and strategic objectives.

Additional information on business and strategic risk can be found in the Risk Factors section in the AIF.

v. Operational Risk

Risk Description

Operational risk is the risk of loss (financial and non-financial) resulting from inadequate or failed internal processes, people and systems or from external events. Operational risk is present in all of our business activities and encompasses a broad range of risks as described below. Operational risk management is embedded in the practices utilized to manage other risks and, therefore, if not managed effectively, operational risk can impact our ability to manage other key risks.

Operational Risk Management Governance and Control

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

- Operational risk governance practices are in place, including independent monitoring and review and reporting to senior management and the Board Committees.
- Risk appetite limits have been established in Operational Risk.
- Comprehensive Operational Risk Management Framework, Policies, guidelines and practices are in place.
- Our governance practices, corporate values, Code of Conduct and Company-wide approach to managing risk set the foundation for mitigating operational risks.
- Our Code of Conduct sets the tone for a strong ethical culture, and we regularly review and update the Code of Conduct to ensure that it continues to meet the expectations of regulators and other stakeholders. All our directors and employees must reconfirm annually their understanding of and commitment to comply with the Code of Conduct.
- We have established appropriate internal controls and systems, compensation programs, and seek to hire and retain competent people throughout the organization and provide ongoing training to our people.
- Stress-testing techniques, such as DCAT, are used to measure the effects of large and sustained adverse scenarios.
- We mitigate a portion of our operational risk exposure through our corporate insurance program by purchasing insurance coverage that seeks to provide insurance against unexpected material losses resulting from events such as criminal activity, property loss or damage and liability exposures, or that satisfies legal requirements and contractual obligations.
- 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 operational risks and our risk management strategies are discussed below in further detail and in the Risk Factor section in the AIF.

Information Security and Privacy Risks

Information and technology are used in almost all aspects of our business and operations. As part of our Client strategy, we continue to enhance the digital side of our business to support and enable new business models and processes, that are more personal, proactive and predictive.

Our business and the successful implementation of our digital strategy are dependent on various factors including maintaining a secure environment for our Clients, employees and other parties' information. This requires the effective and secure use, management and oversight of information and physical assets. We engage with various stakeholders and leverage emerging technologies, including digital, mobile applications, cloud computing, artificial intelligence and robotic process automation. These

technologies are used to collect, process and maintain information relating to business transactions and financial reporting, as well as the personal information of our Clients and employees. We also obtain services from a wide range of third-party service providers and have outsourced some business and information technology functions in various jurisdictions.

We continue investing in people, processes and technology to strengthen our abilities to respond to the evolving threat landscape. Sun Life Financial's Information Security framework is overseen by the Chief Information Security Officer, supported by senior leadership and by our Operational Risk Management Framework. Our information security framework and governance controls (policies, procedures, training) are aligned with recognized industry standards and are compliant with applicable laws and regulations.

Our well-established security controls and processes are intent on protecting our information and computer systems and the information entrusted to us by our Clients and employees. Our protection strategy leverages information security risk assessments and privacy impact assessments to evaluate potential risks. The security framework also includes technology and process safeguards and regularly promotes secure behavioural practices. As part of our layered security approach, we deliver general security awareness training sessions to all employees every year that is reinforced with regular awareness resources and activities.

Many jurisdictions in which we do business are developing and implementing cyber security reporting requirements and more stringent consumer privacy legislation. Our global privacy program monitors adherence to our global privacy commitments, local laws and local privacy policies. We have also established a network of privacy officers across the Company who monitor emerging privacy legislation and provide guidance on handling personal information and help manage, report and resolve any privacy incidents that may occur. We also conduct privacy training, provide regular monitoring and reporting and carry cyber risk insurance to help mitigate the impact of privacy incidents.

Social media risks could also significantly impact our reputation due to the broad reach and real-time interaction of online media reporting. We monitor social media so that we may take swift action in mitigating any event that has the potential to negatively impact our brand.

Human Resources Risk

We operate in an increasingly competitive and global business environment and ensuring our ability to attract, retain and enable high performing talent that is diverse and engaged is essential to meeting the needs of our Clients. The loss of our top talent could have a material adverse effect on our reputation and business objectives given their skills, knowledge of our business, Client relationships, industry affiliations and experience, and the potential difficulty of promptly finding qualified replacements. For example, in our asset management business, the loss of certain professionals could adversely affect current and potential clients' perceptions of our ability to provide continuity of product and service offerings. This could result in a decline in sales and assets under management. Across the business, our ability to achieve business objectives could be adversely affected if we are unable to attract, retain or effectively deploy resources with the in-depth knowledge and necessary skills required, or are unable to design compensation programs that effectively drive employee behaviour.

To mitigate this risk, we have comprehensive Human Resource policies, practices and programs in place. Our talent acquisition, rewards and development programs seek to attract, build and retain top talent and create strong succession plans. We also measure and monitor employee engagement regularly to ensure we create and maintain a work environment where all employees are welcome and able to contribute effectively.

Regulatory Compliance, Legal and Conduct Risk

We are subject to extensive regulatory oversight by insurance and financial services regulators in the jurisdictions in which we conduct business. In recent years, there has been an increased focus by regulators globally on Client fairness, conduct, anti-money laundering, privacy and data governance. Failure to comply with applicable laws or to conduct our business consistent with changing regulatory or public expectations could adversely impact our reputation and may lead to regulatory investigations, examinations, proceedings, settlements, penalties, fines, restrictions on our business, litigation or an inability to carry out our business strategy.

Our Chief Compliance Officer oversees our comprehensive Company-wide compliance framework, which is consistent with regulatory guidance from OSFI and other regulators. This framework promotes proactive, risk-based management of compliance and regulatory risk, and includes Company-wide and business segment policies, standards and operating guidelines, programs to promote awareness of laws and regulations that impact us, ongoing monitoring of emerging legal issues and regulatory changes and training programs. There are also new employee orientation programs that include anti-money laundering and anti-terrorist financing, anti-bribery and corruption, privacy and information security risk management. To ensure effective oversight and implementation, the framework is supported by a network of compliance officers and the general counsel in each business segment. The Chief Compliance Officer reports regularly to the Board of Directors and Board Committees on the state of compliance, key compliance risks, emerging regulatory trends, escalation of key issues and key risk indicators.

Execution and Integration Risks Relating to Mergers, Acquisitions, Strategic Investments and Divestitures

We regularly explore opportunities to acquire other financial services businesses or to divest ourselves of all or part of certain businesses, in support of our growth and strategy goals. Any transaction that we enter into introduces the risks related to completing the transactions as planned including effective separation and integration of the transferred businesses, effective or efficient integration, restructuring or reorganization of the businesses after the transactions have closed, and motivating and retaining personnel to effectively execute these transactions. In addition, the integration of operations and differences in organizational culture may require the dedication of significant management resources, which may distract management's attention from our day-to-day business. These risks could have an impact on our business relationship with various stakeholders including future employees, Clients, distributors and partners. Anticipated cost synergies or other expected benefits may not materialize due to a failure to successfully integrate the acquired business with our existing operations.

To mitigate this risk, we have established procedures to oversee the execution and integration of merger and acquisition transactions. Regular updates on the execution and integration risks relating to these transactions are provided to the Board of Directors, Board Committees and senior management committees, as appropriate.

Information Technology Risk

The use of technology and computer systems is essential in supporting and maintaining business operations. We use technology to support virtually all aspects of our business and operations.

The rapidly changing business environment increases the risk of our technology strategy not being agile enough to adapt to new business demands in a timely manner leading to financial losses, increased costs and the inability to meet Client needs. To manage the risks associated with our technology infrastructure and applications, we have implemented a number of policies, directives and controls through our technology approval and risk governance model to ensure ongoing systems availability, stability and currency. A system development methodology and process has also been designed and implemented.

Third-Party Risk

We engage in a variety of third-party relationships, including with distributors, independent contractors, outsourcing service providers and suppliers. Our profitability or reputation could be impacted if these third parties are unable to meet their ongoing service commitments or fail to perform to expected standards.

To manage these risks, we have established Company-wide policies and guidelines which are consistent with OSFI's and other local regulatory requirements. Our outsourcing and supplier risk management programs include specific requirements, guidelines and methodologies to effectively identify, assess, manage, monitor and report on the outsourcing and supplier risks.

Business Disruption Risk

Our businesses are dependent on the availability of trained employees, physical locations to conduct operations and access to technology. A significant business disruption to our operations can result if one or more of these key elements are negatively impacted.

To manage this risk, we have implemented a business continuity program to facilitate the recovery of critical business operations. This program encompasses business continuity, crisis management and disaster recovery planning. Our policy, guidelines and operating procedures establish consistent processes designed to ensure that key business functions can continue and normal operations can resume effectively and efficiently should a major disruption occur. In addition, to regularly update and test business continuity plans for critical business operations, we conduct mandatory business continuity awareness training for all employees annually and have off-site backup facilities and failover capability designed to minimize downtime and accelerate recovery time in the event of a major disruption.

Model Risk

We use complex models to support many business functions including product development and pricing, capital management, valuation, financial reporting, planning, hedging, asset-liability management and risk management. Model risk is the risk of loss, either in the form of financial loss, inappropriate or poor business decisions, damage to reputation, or other adverse impact, arising from inaccurate model outputs or incorrect use or interpretation of model outputs.

To manage model risk, we have established robust, Company-wide model risk management procedures over the models' life cycle with respect to building, using, changing and retiring models. The policy and operating guidelines set out minimum, risk-based requirements to ensure that models are effectively controlled, maintained and appropriately understood by users.

Information Management Risk

As an international provider of financial services, we deal with extensive information across a number of countries. Information management risk is the inability to capture, manage, retain and dispose business records, and the inability to provide data that is fit for purpose, accurate, complete or timely to support business decisions. Failure to manage these risks could have financial or reputational impacts, and may lead to regulatory proceedings, penalties and litigation. To manage and monitor information management risk, we have an internal control framework, data governance and record management practices in place. Additional information on operational risk can be found in the Risk Factors section in the AIF.

vi. 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 & Conduct Review 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 threshold.
- 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.

The following table summarizes the contractual maturities of our significant financial liabilities and contractual commitments as at December 31, 2018 and December 31, 2017:

Financial Liabilities and Contractual Obligations

December 31, 2018 (\$ millions)	Within 1 year	1 year to 3 years	3 years to 5 years	Over 5 years	Total
Insurance and investment contract liabilities ⁽¹⁾	\$ 11,950	\$ 8,388	\$ 8,653	\$ 264,246	\$ 293,237
Senior debentures and unsecured financing ⁽²⁾	438	556	234	4,880	6,108
Subordinated debt ⁽²⁾	103	207	207	3,724	4,241
Bond repurchase agreements	1,824	—	—	—	1,824
Accounts payable and accrued expenses	5,971	—	—	—	5,971
Secured borrowings from mortgage securitization	182	435	187	817	1,621
Borrowed funds ⁽²⁾	55	49	45	68	217
Total liabilities	\$ 20,523	\$ 9,635	\$ 9,326	\$ 273,735	\$ 313,219
Contractual commitments ⁽³⁾					
Contractual loans, equities and mortgages	\$ 1,157	\$ 1,044	\$ 536	\$ 1,063	\$ 3,800
Operating leases	138	230	182	506	1,056
Total contractual commitments	\$ 1,295	\$ 1,274	\$ 718	\$ 1,569	\$ 4,856
December 31, 2017 (\$ millions)	Within 1 year	1 year to 3 years	3 years to 5 years	Over 5 years	Total
Insurance and investment contract liabilities ⁽¹⁾	\$ 10,242	\$ 7,552	\$ 7,729	\$ 242,181	\$ 267,704
Senior debentures and unsecured financing ⁽²⁾	120	516	489	4,393	5,518
Subordinated debt ⁽²⁾	126	251	251	4,229	4,857
Bond repurchase agreements	1,976	—	—	—	1,976
Accounts payable and accrued expenses	5,814	—	—	—	5,814
Secured borrowings from mortgage securitization	81	333	398	701	1,513
Borrowed funds ⁽²⁾	80	52	49	83	264
Total liabilities	\$ 18,439	\$ 8,704	\$ 8,916	\$ 251,587	\$ 287,646
Contractual commitments ⁽³⁾					
Contractual loans, equities and mortgages	\$ 1,138	\$ 820	\$ 214	\$ 761	\$ 2,933
Operating leases	116	207	148	452	923
Total contractual commitments	\$ 1,254	\$ 1,027	\$ 362	\$ 1,213	\$ 3,856

(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) Contractual commitments and operating lease commitments are not reported on our Consolidated Financial Statements. Additional information on these commitments is included in Note 23 of our 2018 Annual Consolidated Financial Statements.

Additional information on liquidity risk can be found in Note 6 to our 2018 Annual Consolidated Financial Statements and the Risk Factors section in the AIF.

K. Additional Financial Disclosure

1. Items related to Statement of Operations

i. Business Group Summary Statement of Operations

	2018					2017	
(\$ millions, after-tax)	SLF Canada	SLF U.S.	SLF Asset Management	SLF Asia	Corporate	Total	Total
Net premiums	11,886	4,803	—	1,947	6	18,642	15,281
Net investment income	1,942	305	13	76	53	2,389	8,211
Fee income	1,240	73	4,111	514	28	5,966	5,842
Revenue	15,068	5,181	4,124	2,537	87	26,997	29,334
Gross claims and benefits paid and Changes in insurance/investment contract liabilities	11,529	4,308	—	836	(309)	16,364	21,542
Operating expenses, commissions and other expenses ⁽¹⁾	3,106	1,557	2,931	1,247	302	9,143	9,376
Reinsurance expenses (recoveries)	(1,138)	(682)	—	(164)	(37)	(2,021)	(4,373)
Total benefits and expenses	13,497	5,183	2,931	1,919	(44)	23,486	26,545
Income tax expense (benefit)	308	(19)	284	51	(27)	597	302
Preferred shareholders' dividends	—	—	—	—	94	94	93
Participating policyholders' income and non-controlling interests in net income of subsidiaries	321	(35)	—	12	—	298	245
Reported net income (loss)	942	52	909	555	64	2,522	2,149

(1) Includes net transfer to (from) segregated funds, premium taxes and interest expense.

SLF Canada

Revenue was \$15.1 billion in 2018, an increase of \$1.8 billion from 2017, primarily due to higher net premiums in GB and GRS, partially offset by decreases in the fair value of FVTPL assets.

SLF U.S.

Revenue for the year ended December 31, 2018 was US\$4.0 billion (\$5.2 billion), an decrease of US\$1.3 billion from 2017, primarily due to an decrease in net investment income of US\$1.2 billion. The decrease in net investment income was largely due to decreases in the fair value of FVTPL assets and non-hedging derivatives.

SLF Asset Management

Revenue for the year ended December 31, 2018 was \$4.1 billion, consistent with 2017.

SLF Asia

SLF Asia's revenue was \$2.5 billion in 2018 compared to \$4.5 billion in 2017 largely due to decreases in the fair value of FVTPL assets in 2018, and lower net premiums in International.

ii. Revenue

Revenue includes: (i) premiums received on life and health insurance policies and fixed annuity products, net of premiums ceded to reinsurers; (ii) net investment income comprised of income earned on general fund assets, realized gains and losses on AFS assets and changes in the value of derivative instruments and assets designated as FVTPL and currency changes on assets and liabilities; and (iii) fee income received for services provided. Premium and deposit equivalents from ASO, as well as deposits received by the Company on investment contracts such as segregated funds, mutual funds and managed funds are not included in revenue; however, the Company does receive fee income from these contracts, which is included in revenue. Fee income and ASO premium and deposit equivalents are an important part of our business and as a result, revenue does not fully represent sales and other activity taking place during the respective periods.

Net investment income can experience volatility arising from the quarterly fluctuation in the value of FVTPL assets and foreign currency changes on assets and liabilities, which may in turn affect the comparability of revenue from period to period. The change in fair value of FVTPL assets is driven largely by market related factors such as interest rates, credit spreads and equity returns. The debt and equity securities that support insurance contract liabilities are generally designated as FVTPL and changes in fair values of these assets are recorded in net investment income in our Consolidated Statements of Operations. Changes in the fair values of the FVTPL assets supporting insurance contract liabilities are largely offset by a corresponding change in the liabilities.

Revenue (\$ millions)	2018	2017	2016
Premiums			
Gross			
Life insurance	8,677	8,831	8,894
Health insurance	9,121	8,519	7,909
Annuities	3,183	2,488	2,624
	20,981	19,838	19,427
Ceded			
Life insurance	(1,521)	(1,659)	(1,772)
Health insurance	(489)	(2,554)	(2,247)
Annuities	(329)	(344)	(360)
	(2,339)	(4,557)	(4,379)
Net premiums	18,642	15,281	15,048
Net investment income (loss)			
Interest and other investment income	5,641	5,413	5,489
Fair value ⁽¹⁾ and foreign currency changes on assets and liabilities	(3,373)	2,603	2,233
Net gains (losses) on AFS assets	121	195	223
Net investment income (loss)	2,389	8,211	7,945
Fee income	5,966	5,842	5,580
Total revenue	26,997	29,334	28,573
Adjusted revenue⁽²⁾	31,034	29,757	28,724

(1) Represents the change in FVTPL assets and liabilities.

(2) Adjusted revenue is a non-IFRS financial measure that excludes from revenue the impact of Constant Currency Adjustment, FV Adjustment and Reinsurance in SLF Canada's Group Operations Adjustment as described in section L - Non-IFRS Financial Measures in this document.

Revenue of \$27.0 billion in 2018 was down \$2.3 billion from revenue of \$29.3 billion in 2017. The decrease was mainly attributable to decreases in the fair value of FVTPL assets largely due to widening credit spreads and higher interest rates in 2018, partially offset by higher net premium revenue in SLF Canada. The currency impact from the change in the Canadian dollar relative to average exchange rates in 2017 decreased revenue by \$50 million. Adjusted revenue in 2018 was \$31.0 billion, an increase of \$1.3 billion from 2017. The increase was primarily driven by higher net premium revenue in SLF Canada, partially offset by lower fee income due to market volatility from our asset management and wealth businesses primarily due to lower asset values.

Gross premiums were \$21.0 billion in 2018, up from \$19.8 billion in 2017. The increase in gross premiums was primarily driven by increases in GB and GRS in SLF Canada, partially offset by decreases in international in SLF Asia.

Ceded premiums in 2018 were \$2.3 billion, compared to \$4.6 billion from 2017. The decrease was primarily attributable to the termination of a reinsurance agreements in GB in SLF Canada, partially offset by increases in SLF U.S.

Net investment income in 2018 was \$2.4 billion, down \$5.8 billion from \$8.2 billion in 2017. The decrease in net investment income was primarily due to decreases in the fair value of FVTPL assets compared to the prior year in SLF Canada, SLF U.S. and SLF Asia.

Fee income was \$6.0 billion in 2018, compared to \$5.8 billion in 2017. The increase was mainly driven by increased fee income in SLF Asset Management, SLF Canada, partially offset by decreased fee income in SLF U.S.

iii. Benefits and Expenses

Total benefits and expenses were \$23.5 billion in 2018, down \$3.1 billion from \$26.5 billion in 2017.

(\$ millions)	2018	2017	2016
Benefits and Expenses			
Gross claims and benefits paid	15,986	15,353	15,210
Changes in insurance/investment contract liabilities ⁽¹⁾	378	6,189	5,511
Reinsurance expenses (recoveries)	(2,021)	(4,373)	(4,313)
Commissions	2,339	2,403	2,372
Operating expenses	6,432	6,410	6,000
Other ⁽²⁾	372	563	348
Total benefits and expenses	23,486	26,545	25,128

(1) Includes increase (decrease) in insurance contract liabilities, decrease (increase) in reinsurance assets, increase (decrease) in investment contract liabilities.

(2) Other includes net transfer to (from) segregated funds, premium taxes and interest expense.

Gross claims and benefits paid in 2018 were \$16.0 billion, up \$0.6 billion from 2017 primarily as a result of increases in GB in SLF Canada, partially offset by International in SLF Asia.

Changes in insurance/investment contract liabilities and reinsurance assets of \$0.4 billion, decreased by \$5.8 billion over 2017. The change was primarily attributable to changes in actuarial liabilities in 2018.

Commission expenses of \$2.3 billion in 2018 remained largely unchanged from 2017.

Operating expenses of \$6.4 billion in 2018 were level with 2017. The movement of the Canadian dollar decreased operating expenses \$23 million from the strengthening of the Canadian dollar. Additional information on operating expenses can be found in Note 18 in our 2018 Annual Consolidated Financial Statements.

Other expenses of \$0.4 billion were down \$0.2 billion from 2017 primarily as a result of an increase in net transfers from segregated funds.

iv. Taxes

Income Taxes

In 2018, we had an income tax expense of \$597 million on reported net income before taxes of \$3,511 million, which resulted in an effective income tax rate of 17.0%. This compares to an income tax expense of \$302 million on reported net income before taxes of \$2,789 million and an effective income tax rate of 10.8% in 2017.

On an underlying basis⁽¹⁾, in 2018, we had an income tax expense of \$642 million on our underlying net income before taxes of \$3,731 million, representing an effective income tax rate of 17.2% which is within our expected range. This compares to an income tax expense of \$692 million on our underlying net income before taxes of \$3,381 million and an effective income tax rate of 20.5% in 2017.

See section D - Profitability - vi - Income taxes for additional information on our effective tax rates.

Other Taxes

In addition to income taxes, we pay various indirect taxes in jurisdictions in which we carry on business. Indirect taxes include premium taxes, investment income tax, payroll related taxes, property taxes, sales taxes, business taxes and other taxes, as follows:

(\$ millions)	2018	2017
Income tax expense	597	302
Indirect taxes		
Premium taxes (net of premium taxes on ceded business) ⁽¹⁾	345	350
Payroll taxes	163	156
Property taxes	126	127
Goods and services tax (GST), harmonized tax (HST) and other sales taxes	122	118
Business taxes and other	38	24
Total indirect taxes	794	775
Total taxes	1,391	1,077
Reported effective income tax rate	17.0%	10.8%
Total taxes as a percentage of net income before deduction of total taxes	32.3%	30.2%

(1) Premium taxes include investment income tax.

2. Items related to Statement of Financial Position

i. Changes in Liabilities and Shareholders' Equity

Insurance contract liabilities balances before Other policy liabilities and assets of \$114.9 billion as at December 31, 2018 increased by \$3.8 billion compared to December 31, 2017, mainly due to balances arising from new policies and changes in balances on in-force policies (which include fair value changes on FVTPL assets supporting insurance contract liabilities), partially offset by the currency impact of the strengthening of the Canadian dollar relative to exchange rates at December 31, 2017.

Shareholders' equity, including preferred share capital, was \$23.7 billion as at December 31, 2018, compared to \$22.3 billion as at December 31, 2017. The \$1.4 billion increase in shareholders' equity was primarily due to:

- (i) shareholders' net income of \$2.6 billion in 2018, before preferred share dividends of \$94 million;
- (ii) an increase of \$757 million from the change of the Canadian dollar relative to exchange rates at the end of the fourth quarter of 2017;
- (iii) the impact of \$89 million from the transfer of seed capital from the participating account to the shareholder account;
- (iv) changes in the remeasurement of defined benefit plans of \$84 million; and
- (v) \$13 million from stock options exercised and \$4 million from stock-based compensation; partially offset by
- (vi) common share dividend payments of \$1,147 million;
- (vii) a decrease of \$641 million from the repurchase and cancellation of common shares; and
- (viii) net unrealized losses on AFS assets in OCI of \$402 million.

ii. Off-Balance Sheet Arrangements

In the normal course of business, we are engaged in a variety of financial arrangements. The principal purposes of these arrangements are to earn management fees and additional spread on a matched book of business and to reduce financing costs.

(1) Our effective income tax rate on underlying net income is calculated using underlying net income and income tax expense associated with underlying net income, which excludes amounts attributable to participating policyholders.

While most of these activities are reflected on our balance sheet with respect to assets and liabilities, certain of them are either not recorded on our balance sheet or are recorded on our balance sheet in amounts that differ from the full contract or notional amounts. The types of off-balance sheet activities we undertake primarily include asset securitizations and securities lending.

Asset Securitizations

In the past, we sold mortgage or bond assets to non-consolidated structured entities, which may also purchase investment assets from third parties. Our securitized AUM held by these non-consolidated structured entities were \$1 million as at December 31, 2018 and December 31, 2017.

However, the majority of our securitization activities are recorded on our Consolidated Statements of Financial Position. We securitize multi-residential mortgages under the National Housing Act Mortgage-Backed Securities program sponsored by the CMHC. The securitization of the multi-residential mortgages with the CMHC does not qualify for de-recognition and remains on our Consolidated Statements of Financial Position. Additional information on this program can be found in Note 5 to our 2018 Annual Consolidated Financial Statements.

Securities Lending

We lend securities in our investment portfolio to other institutions for short periods to generate additional fee income. We conduct our program only with well-established, reputable banking institutions that carry a minimum credit rating of "AA". Collateral, which exceeds the fair value of the loaned securities, 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. We monitor the fair value of the loaned securities on a daily basis with additional collateral obtained or refunded as the fair value fluctuates. Certain arrangements allow us to invest the cash collateral received for the securities loaned. Loaned securities are recognized in our Consolidated Statements of Financial Position as Invested Assets. As at December 31, 2018, we loaned securities with a carrying value of \$2.2 billion for which the collateral held was \$2.3 billion. This compares to loaned securities of \$1.5 billion, with collateral of \$1.5 billion as at December 31, 2017. The increase is a result of an increase in our program limit.

iii. Goodwill and Intangibles Impairment

The Company completed its annual goodwill and indefinite life intangible asset impairment testing in the fourth quarter of 2018. There were no goodwill impairment charges in 2018 or 2017. No impairment charges on intangible assets were recognized in 2018 or 2017.

iv. Commitments, Guarantees, Contingencies and Reinsurance Matters

In the normal course of business, we enter into leasing agreements, outsourcing arrangements and agreements involving indemnities to third parties. We are also engaged in arbitration proceedings from time to time with certain companies that have contracts to provide reinsurance to the Company. Information regarding our commitments, guarantees and contingencies are summarized in Note 23 to our 2018 Annual Consolidated Financial Statements. A table summarizing our significant financial liabilities and contractual obligations can be found in this MD&A in the section J - Risk Management - 8 - Risk Categories - vi - Liquidity Risk.

3. Fourth Quarter 2018 Profitability

The following table reconciles our net income measures and sets out the impact that other notable items had on our net income in the fourth quarter of 2018 and 2017. All factors discussed in this document that impact our underlying net income are also applicable to reported net income.

	Q4'18	Q4'17
(\$ millions, after-tax)		
Reported net income	580	207
Market related impacts ⁽¹⁾	(153)	(57)
Assumption changes and management actions ⁽¹⁾⁽²⁾	13	(34)
Other adjustments ⁽¹⁾	2	(92)
U.S. tax reform ⁽²⁾	—	(251)
Underlying net income ⁽³⁾	718	641
Reported ROE ⁽³⁾	10.9%	4.1%
Underlying ROE ⁽³⁾	13.6%	12.7%
Experience related items ⁽⁴⁾		
Impact of investment activity on insurance contract liabilities	28	15
Mortality	(11)	11
Morbidity	(12)	10
Credit	23	23
Lapse and other policyholder behaviour	(4)	(12)
Expenses	(26)	(45)
Other	44	(8)

(1) See section L - Non-IFRS Financial Measures in this document for a breakdown of components within this adjustment.

(2) ACMA in 2017 excludes the charge that is included in U.S. tax reform, shown separately.

(3) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

(4) Experience related items reflect the difference between actual experience during the reporting period and best estimate assumptions used in the determination of our insurance contract liabilities.

Reported net income was \$580 million in the fourth quarter of 2018 compared to \$207 million in the fourth quarter of 2017. Underlying net income was \$718 million compared to \$641 million in the fourth quarter of 2017. Reported net income compared to the fourth quarter of 2017 primarily reflected the \$251 million charge in 2017 related to the enactment of the U.S. tax reform. The increase also reflected positive impacts from other adjustments and ACMA, partially offset by market related impacts. Underlying net income compared to the fourth quarter of 2017 reflected the effect of the lower income tax rate in the U.S., favourable expense experience and favourable other experience, partially offset by unfavourable mortality and morbidity experience. Market volatility reduced our fee income from our asset management and wealth businesses primarily due to lower asset values, offsetting business growth in our life and health insurance businesses.

In the fourth quarter of 2018, our effective income tax rates on reported net income and underlying net income were 14.5% and 16.8%, respectively.

Performance by Business Group - Fourth Quarter

We manage our operations and report our financial results in five business segments. The following section describes the operations and financial performance of SLF Canada, SLF U.S., SLF Asset Management, SLF Asia and Corporate.

The following table sets out the differences between our reported net income (loss) and underlying net income (loss) by business segment.

	Q4'18					Q4'17	
(\$ millions, after-tax)	SLF Canada	SLF U.S.	SLF Asset Management	SLF Asia	Corporate	Total	Total
Reported net income (loss)	96	118	244	125	(3)	580	207
Market related impacts ⁽¹⁾	(134)	5	—	(22)	(2)	(153)	(57)
Assumption changes and management actions ⁽¹⁾⁽³⁾	(14)	—	—	9	18	13	(34)
Other adjustments ⁽¹⁾	(1)	(8)	17	(2)	(4)	2	(92)
U.S. tax reform ⁽³⁾	—	—	—	—	—	—	(251)
Underlying net income (loss) ⁽²⁾	245	121	227	140	(15)	718	641

(1) See section L - Non-IFRS Financial Measures in this document for a breakdown of components within this adjustment.

(2) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

(3) ACMA in 2017 excludes the charge that is included in U.S. tax reform, shown separately.

SLF Canada

SLF Canada's reported net income was \$96 million in the fourth quarter of 2018, compared to \$172 million in the fourth quarter of 2017. Underlying net income in the fourth quarter of 2018 was \$245 million, compared to \$232 million in the fourth quarter of 2017. Reported net income in the fourth quarter of 2018 compared to the fourth quarter of 2017 reflected unfavourable equity market impacts partially offset by favourable credit spread impacts, and favourable ACMA. Underlying net income in the fourth quarter of 2018 compared to the same period in 2017 reflected favourable expense experience that resulted from ongoing expense management and lower incentive compensation costs and favourable policy administration updates, partially offset by less favourable investment experience.

SLF U.S.

SLF U.S.'s reported net income was US\$89 million (\$118 million) in the fourth quarter of 2018, compared to reported net loss of US\$49 million (\$63 million) in the fourth quarter of 2017. Underlying net income was US\$91 million (\$121 million), compared to US\$74 million (\$95 million) in the fourth quarter of 2017. The impact from the movement of the Canadian dollar in the fourth quarter of 2018 relative to average exchange rates in the fourth quarter of 2017 increased reported and underlying net income by \$5 million.

Reported net income in the fourth quarter of 2018 compared to the fourth quarter of 2017 reflected the US\$90 million (\$114 million) charge in 2017 related to the enactment of the U.S. tax reform. The increase also reflected favourable interest rate impacts in the fourth quarter of 2018. Underlying net income in the fourth quarter of 2018 compared to the fourth quarter of 2017 reflected the impact of lower income tax rates in the U.S., business growth, favourable lapse and policyholder behaviour experience in In-force Management, and reinsurance administration updates, partially offset by unfavourable morbidity experience in Group Benefits and unfavourable mortality experience in In-force Management.

The after-tax profit margin for Group Benefits⁽¹⁾ was 6.7% as of the fourth quarter of 2018, compared to 5.0% as of the fourth quarter of 2017.

SLF Asset Management

SLF Asset Management's reported net income was \$244 million in the fourth quarter of 2018, compared to \$114 million in the fourth quarter of 2017. SLF Asset Management had underlying net income of \$227 million in the fourth quarter of 2018, compared to \$226 million in the fourth quarter of 2017. The impact from the movement of the Canadian dollar in the fourth quarter of 2018 relative to average exchange rates in the fourth quarter of 2017 increased reported net income and underlying net income by \$10 million and \$9 million, respectively.

In U.S. dollars, MFS's reported net income was US\$189 million in the fourth quarter of 2018, compared to US\$72 million in the fourth quarter of 2017. MFS's reported net income compared to the fourth quarter of 2017 reflected the US\$75 million charge in 2017 related to the enactment of the U.S. tax reform. The increase also reflected the impact of negative fair value adjustments on

(1) Based on underlying net income, on a trailing four quarters basis, and which is described in section L - Non-IFRS Financial Measures in this document.

MFS's share-based payment awards. MFS's underlying net income was US\$167 million in the fourth quarter of 2018, compared to US\$174 million in the fourth quarter of 2017 as a result of lower average net assets, largely offset by the lower income tax rate in the U.S. Pre-tax net operating profit margin ratio for MFS⁽¹⁾ for the fourth quarter of 2018 of 38%, down from 40% for the fourth quarter of 2017.

SLIM's reported net loss was \$5 million compared to net income of \$23 million in the fourth quarter of 2017, primarily due to the \$17 million benefit in 2017 related to the enactment of the U.S. tax reform. The decrease also reflected acquisition expenses incurred in 2018 for the pending GreenOak transaction. SLIM's underlying net income of \$6 million was in line with the fourth quarter of 2017.

SLF Asia

SLF Asia's reported net income was \$125 million in the fourth quarter of 2018, compared to reported net income of \$121 million in the fourth quarter of 2017. Underlying net income was \$140 million, compared to \$111 million in the fourth quarter of 2017. The impact from the movement of the Canadian dollar in the fourth quarter of 2018 relative to average exchange rates in the fourth quarter of 2017 increased reported net income and underlying net income by \$1 million and \$2 million, respectively.

Reported net income in the fourth quarter of 2018 compared to the fourth quarter of 2017 reflected unfavourable market related impacts, primarily equity markets as well as net interest rate impacts, partially offset by favourable ACMA. Underlying net income in the fourth quarter of 2018 compared to the fourth quarter of 2017 reflected favourable investment experience and investment related experience in International, partially offset by higher new business strain.

Corporate

Corporate had reported net loss of \$3 million in the fourth quarter of 2018, compared to reported loss of \$137 million in the fourth quarter of 2017, which reflected the \$54 million charge in 2017 related to the enactment of the U.S. tax reform. The favourable change also reflected the 2017 restructuring charge and favourable ACMA in 2018 relating to the termination of assumed business. Underlying net loss was \$15 million, compared to underlying loss of \$23 million in the fourth quarter of 2017.

SLF U.K.'s reported net income in the fourth quarter of 2018 increased compared to the fourth quarter of 2017 reflecting the unfavourable impacts from the treatment of policyholder tax losses in 2017 and ACMA.

Corporate Support had a reported net loss of \$34 million in the fourth quarter of 2018, compared to a reported net loss of \$143 million in the fourth quarter of 2017. The favourable change was primarily due to the \$54 million charge in 2017 related to the enactment of the U.S. tax reform and the 2017 restructuring charge. The favourable change also reflected favourable ACMA relating to the termination of assumed business.

Growth - Fourth Quarter

Revenue for the fourth quarter of 2018 was \$8.2 billion, compared to \$8.6 billion in the fourth quarter of 2017. Revenues decreased primarily as a result of the decreases in the fair value of FVTPL assets largely due to widening credit spreads and higher interest rates in the fourth quarter of 2018, compared to net gains generated from decreases in interest rates and narrowing credit spreads in the same period last year, partially offset by increased premiums. The currency impact from the change in the Canadian dollar relative to average exchange rates in the fourth quarter of 2017 increased revenue by \$121 million. Adjusted revenue was \$8.3 billion for the fourth quarter of 2018, up \$0.5 billion from the fourth quarter of 2017.

Premiums and deposits were \$41.5 billion for the quarter ended December 31, 2018, compared to \$41.0 billion for the quarter ended December 31, 2017. The increase was primarily driven by mutual fund sales growth, increased net premiums and the currency impact of \$1.1 billion from the weakening Canadian dollar, partially offset by lower managed fund sales. Total adjusted premiums and deposits in the fourth quarter of 2018 were down \$1.2 billion compared to the same period in the prior year. The decrease was mainly due to lower managed fund sales, partially offset by increased mutual fund sales and net premiums.

(1) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

4. Previous Quarters

The following table provides a summary of our results for the eight most recently completed quarters. A more complete discussion of our historical quarterly results can be found in our interim and annual MD&As for the relevant periods.

(\$ millions, unless otherwise noted)	Quarterly results							
	Q4'18	Q3'18	Q2'18	Q1'18	Q4'17	Q3'17	Q2'17	Q1'17
Total revenue	8,180	5,998	6,826	5,993	8,648	5,555	8,122	7,009
Common shareholders' net income (loss)								
Reported	580	567	706	669	207	817	574	551
Underlying ⁽¹⁾	718	730	729	770	641	643	689	573
Diluted EPS (\$)								
Reported	0.96	0.93	1.16	1.09	0.34	1.32	0.93	0.89
Underlying ⁽¹⁾	1.19	1.20	1.20	1.26	1.05	1.05	1.12	0.93
Basic reported EPS (\$)								
Reported	0.96	0.94	1.16	1.10	0.34	1.33	0.93	0.90
Reported net income (loss) by segment								
SLF Canada	96	335	262	249	172	340	185	266
SLF U.S.	118	(267)	105	96	(63)	72	(178)	25
SLF Asset Management	244	241	214	210	114	185	183	171
SLF Asia	125	164	133	133	121	216	356	85
Corporate	(3)	94	(8)	(19)	(137)	4	28	4
Total reported net income (loss)	580	567	706	669	207	817	574	551
Underlying net income (loss) by segment ⁽¹⁾								
SLF Canada ⁽¹⁾	245	251	245	295	232	222	266	229
SLF U.S. ⁽¹⁾	121	139	125	129	95	121	101	59
SLF Asset Management ⁽¹⁾	227	251	216	231	226	204	199	183
SLF Asia ⁽¹⁾	140	110	145	128	111	130	123	97
Corporate ⁽¹⁾	(15)	(21)	(2)	(13)	(23)	(34)	—	5
Total underlying net income (loss) ⁽¹⁾	718	730	729	770	641	643	689	573

(1) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

Third Quarter 2018

Reported net income was \$567 million in the second quarter of 2018, reflecting a \$269 million unfavourable change in ACMA compared to the same quarter in 2017. Underlying net income was \$730 million, primarily driven by strong business growth, the lower income tax rate in the U.S., higher investment income on surplus assets, partially offset by new business strain.

Second Quarter 2018

Reported net income was \$706 million in the second quarter of 2018, reflecting an \$82 million favourable change in market related impacts compared to the same quarter in 2017. Underlying net income was \$729 million, primarily driven by strong business growth and favourable morbidity experience, partially offset by expenses, credit experience, and the impact of investment activity on insurance contract liabilities.

First Quarter 2018

Reported net income was \$669 million in the first quarter of 2018, reflecting a \$79 million unfavourable change in market related impacts compared to the same quarter in 2017. Underlying net income was \$770 million, primarily driven by interest on par seed capital of \$110 million, strong business growth, the lower income tax rate in the U.S., as well as the impact of investment activity on insurance contract liabilities, partially offset by weaker mortality and lapse experience.

Fourth Quarter 2017

Reported net income was \$207 million in the fourth quarter of 2017, reflecting unfavourable impact of the U.S. tax reform, a restructuring charge, and the impact from interest rates compared to the fourth quarter of 2016. Underlying net income was \$641 million, reflecting the growth in our wealth businesses and favourable morbidity and mortality experience.

Third Quarter 2017

Reported net income was \$817 million in the third quarter of 2017, reflecting favourable market related activity primarily driven by interest rates and changes in the fair values of real estate, and favourable impact of ACMA, partially offset by the unfavourable impact of the movement of the Canadian dollar and other adjustments compared to the third quarter of 2016. Underlying net income was \$643 million, reflecting favourable mortality experience, growth in fee income on our wealth businesses and new business gains, partially offset by a lower level of gains from investing activity.

Second Quarter 2017

Reported net income was \$574 million in the second quarter of 2017, reflecting the unfavourable effect of market related impacts driven by interest rate changes, the unfavourable impact of acquisition, integration and restructuring amounts, fair value adjustments on MFS's share-based payment awards, and certain hedges in SLF Canada that do not qualify for hedge accounting. Reported net income also reflected the factors discussed in underlying net income. Underlying net income was \$689 million, reflecting business growth, gains from investing activity on insurance contract liabilities, positive credit experience and favourable morbidity and mortality experience, partially offset by unfavourable lapse and other policyholder experience, unfavourable expense experience, including investment in growing our businesses, and unfavourable other experience.

First Quarter 2017

Reported net income was \$551 million in the first quarter of 2017, reflecting the favourable effect of market related impacts partially offset by the unfavourable impact of acquisition, integration and restructuring amounts and fair value adjustments on MFS's share-based payment awards. Reported net income also reflected the factors discussed in underlying net income. Underlying net income was \$573 million, reflecting favourable mortality experience in SLF Canada and SLF U.K. and gains from investing activities on insurance contract liabilities, partially offset by lapse and other policyholder behaviour experience and unfavourable mortality experience in SLF U.S.

L. Non-IFRS Financial Measures

i. Underlying Net Income and Underlying EPS

Underlying net income (loss) and financial measures based on underlying net income (loss), including underlying EPS or underlying loss per share, and underlying ROE, are non-IFRS financial measures. Underlying net income (loss) removes from reported net income (loss) the impact of the following items that create volatility in our results under IFRS and when removed assist in explaining our results from period to period:

- (a) market related impacts that differ from our best estimate assumptions, which include: (i) impact of returns in equity markets, net of hedging, for which our best estimate assumptions are approximately 2% per quarter. This also includes the impact of the basis risk inherent in our hedging program, which is the difference between the return on underlying funds of products that provide benefit guarantees and the return on the derivative assets used to hedge those benefit guarantees; (ii) the impact of changes in interest rates in the reporting period and on the value of derivative instruments used in our hedging programs including changes in credit and swap spreads, and any changes to the assumed fixed income reinvestment rates in determining the actuarial liabilities; and (iii) the impact of changes in the fair value of investment properties in the reporting period;
- (b) assumption changes and management actions, which include: (i) the impact of revisions to the methods and assumptions used in determining our liabilities for insurance contracts and investment contracts and (ii) the impact on insurance contracts and investment contracts of actions taken by management in the current reporting period, referred to as management actions which include, for example, changes in the prices of in-force products, new or revised reinsurance on in-force business, and material changes to investment policies for assets supporting our liabilities; and
- (c) Other adjustments:
 - (i) certain hedges in SLF Canada that do not qualify for hedge accounting - this adjustment enhances the comparability of our net income from period to period, as it reduces volatility to the extent it will be offset over the duration of the hedges;
 - (ii) fair value adjustments on MFS's share-based payment awards that are settled with MFS's own shares and accounted for as liabilities and measured at fair value each reporting period until they are vested, exercised and repurchased - this adjustment enhances the comparability of MFS's results with publicly traded asset managers in the United States;
 - (iii) acquisition, integration and restructuring costs (including impacts related to acquiring and integrating acquisitions); and
 - (iv) other items that are unusual or exceptional in nature.

All factors discussed in this document that impact our underlying net income are also applicable to reported net income.

All EPS measures in this document refer to fully diluted EPS, unless otherwise stated. As noted below, underlying EPS excludes the dilutive impact of convertible instruments.

The following table sets out the amounts that were excluded from our underlying net income (loss) and underlying EPS, and provides a reconciliation to our reported net income (loss) and EPS based on IFRS. A reconciliation of our underlying net income to our reported net income for the fourth quarters of 2018 and 2017 is provided in this MD&A in section K - Additional Financial Disclosure - 3 - Fourth Quarter 2018 Profitability.

Reconciliations of Select Net Income Measures

(\$ millions, unless otherwise noted)	2018	2017	2016
Reported net income	2,522	2,149	2,485
Equity market impact			
Impact from equity market changes	(159)	68	62
Basis risk impact	(15)	(6)	(11)
Equity market impact	(174)	62	51
Interest rate impact			
Impact of interest rate changes	(116)	(79)	45
Impact of credit spread movements	56	(54)	(41)
Impact of swap spread movements	(31)	(24)	30
Interest rate impact ⁽¹⁾	(91)	(157)	34
Impact of changes in the fair value of investment properties	77	88	22
Market related impacts ⁽³⁾	(188)	(7)	107
Assumption changes and management actions ⁽²⁾⁽³⁾	(155)	81	45
Other adjustments:			
Certain hedges in SLF Canada that do not qualify for hedge accounting	5	(16)	(5)
Fair value adjustments on MFS's share-based payment awards	(5)	(81)	30
Acquisition, integration and restructuring	(82)	(123)	(27)
Total of other adjustments	(82)	(220)	(2)
U.S. tax reform ⁽²⁾	—	(251)	—
Underlying net income	2,947	2,546	2,335
Reported EPS (diluted) (\$)	4.14	3.49	4.03
Market related impacts (\$)	(0.31)	(0.01)	0.18
Assumption changes and management actions (\$)	(0.26)	0.13	0.07
Certain hedges in SLF Canada that do not qualify for hedge accounting (\$)	0.01	(0.03)	(0.01)
Fair value adjustments on MFS's share-based payment awards (\$)	(0.01)	(0.13)	0.05
Acquisition, integration and restructuring (\$)	(0.14)	(0.20)	(0.04)
U.S. tax reform (\$)	—	(0.41)	—
Impact of convertible securities on diluted EPS (\$)	(0.01)	(0.01)	(0.02)
Underlying EPS (diluted) (\$)	4.86	4.15	3.80

(1) Our exposure to interest rates varies by product type, line of business, and geography. Given the long-term nature of our business, we have a higher degree of sensitivity in respect of interest rates at long durations.

(2) ACMA in 2017 excludes the \$(288) million change that is included in U.S. tax reform, shown separately.

(3) See section L - Non-IFRS Financial Measures in this document for a breakdown of components within this adjustment.

The following table shows the pre-tax amount of underlying net income adjustments:

(\$ millions, unless otherwise noted)	2018	2017	2016
Reported net income (after tax)	2,522	2,149	2,485
Underlying net income adjustments (pre-tax):			
Market related impacts ⁽¹⁾	(179)	(79)	67
Assumption changes and management actions ⁽¹⁾⁽²⁾	(246)	(61)	10
Other adjustments ⁽¹⁾	(150)	(297)	(40)
U.S. tax reform ⁽²⁾	—	(444)	—
Total underlying net income adjustments (pre-tax)	(575)	(881)	37
Tax related to underlying net income adjustments	150	484	113
Underlying net income ⁽³⁾ (after tax)	2,947	2,546	2,335

(1) See section L - Non-IFRS Financial Measures in this document for a breakdown of components within this adjustment.

(2) U.S. tax reform of \$(444) million (pre-tax) is shown separately, and is excluded from ACMA of \$(61) million (pre-tax).

(3) Represents a non-IFRS financial measure. See section L - Non-IFRS Financial Measures in this document.

Tax related to underlying net income adjustments may vary from the expected effective tax rate range reflecting the mix of business based on the Company's international operations. The aggregate tax effect depends on whether the underlying adjustment increases and reductions to pre-tax income occurred in high or low tax jurisdictions.

ii. Additional Non-IFRS Measures

Management also uses the following non-IFRS financial measures:

Return on equity. IFRS does not prescribe the calculation of ROE and therefore a comparable measure under IFRS is not available. To determine reported ROE and underlying ROE, respectively, reported net income (loss) and underlying net income (loss) is divided by the total weighted average common shareholders' equity for the period. The quarterly ROE is annualized.

Financial leverage ratio. This total debt to total capital ratio is ratio of debt plus preferred shares to total capital, where debt consists of all capital qualifying debt securities. Capital qualifying debt securities consist of subordinated debt and innovative capital instruments.

Dividend payout ratio. This is the ratio of dividends paid per share to diluted underlying EPS for the period.

Sales. In SLF Canada, insurance sales consist of sales of individual insurance and group benefits products; wealth sales consist of sales of individual wealth products and sales in GRS. In SLF U.S., insurance sales consist of sales by Group Benefits. In SLF Asia, insurance sales consist of the individual and group insurance sales by our subsidiaries and joint ventures and associates, based on our proportionate equity interest, in the Philippines, Hong Kong, Indonesia, India, China, Malaysia, and Vietnam and sales from our International business unit; wealth sales consist of Hong Kong wealth sales, Philippines mutual fund sales, wealth sales by our India and China insurance joint ventures and associates, and Aditya Birla Sun Life AMC Limited's equity and fixed income mutual fund sales based on our proportionate equity interest, including sales as reported by our bank distribution partners. SLF Asset Management sales consist of gross sales (inflows) for retail and institutional Clients; unfunded commitments are not included in sales. Sales are also expressed on a constant currency basis, which is a measure of sales that provides greater comparability across reporting periods by excluding the impact of exchange rate fluctuations from the translation of functional currencies to the Canadian dollar.

Value of New Business. VNB represents the present value of our best estimate of future distributable earnings, net of the cost of capital, from new business contracts written in a particular time period, except new business in our SLF Asset Management pillar. The assumptions used in the calculations are generally consistent with those used in the valuation of our insurance contract liabilities except that discount rates used approximate theoretical return expectations of an equity investor. Capital required is generally based on Sun Life Assurance's LICAT operating target. VNB is a useful metric to evaluate the present value created from new business contracts. There is no directly comparable IFRS measure.

Adjusted revenue. This measure is an alternative measure of revenue that provides greater comparability across reporting periods, by excluding the impact of: (i) exchange rate fluctuations, from the translation of functional currencies to the Canadian dollar, for comparisons ("Constant Currency Adjustment"); (ii) Fair value and foreign currency changes on assets and liabilities ("FV Adjustment"); and (iii) reinsurance for the insured business in SLF Canada's GB operations ("Reinsurance in SLF Canada's GB Operations Adjustment").

(\$ millions)	2018	2017	2016
Revenues	26,997	29,334	28,573
Constant Currency Adjustment	(62)	—	374
FV Adjustment	(3,373)	2,603	2,233
Reinsurance in SLF Canada's GB Operations Adjustment	(602)	(3,026)	(2,758)
Adjusted revenue	31,034	29,757	28,724

Adjusted premiums and deposits. This measure is an alternative measure of premiums and deposits that provides greater comparability across reporting periods by excluding the impact of: (i) the Constant Currency Adjustment; and (ii) the Reinsurance in SLF Canada's GB Operations Adjustment.

(\$ millions)	2018	2017	2016
Premiums and deposits	160,108	164,680	158,459
Constant Currency Adjustment	(661)	—	2,620
Reinsurance in SLF Canada's GB Operations Adjustment	(602)	(3,026)	(2,758)
Adjusted premiums and deposits	161,371	167,706	158,597

Pre-tax net operating profit margin ratio for MFS. This ratio is a measure of the profitability of MFS, which excludes the impact of fair value adjustments on MFS's share-based payment awards, investment income, and certain commission expenses that are offsetting. These commission expenses are excluded in order to neutralize the impact these items have on the pre-tax net operating profit margin ratio and have no impact on the profitability of MFS. There is no directly comparable IFRS measure.

After-tax profit margin for SLF U.S. Group Benefits. This ratio assists in explaining our results from period to period and is a measure of profitability that expresses SLF U.S. Group Benefits underlying net income as a percentage of net premiums. This ratio is calculated by dividing underlying net income (loss) by net premiums for the trailing four quarters. There is no directly comparable IFRS measure.

Impact of foreign exchange. Items impacting our Consolidated Statements of Operations, such as Revenue, Benefits and expenses, and Total net income (loss), are translated into Canadian dollars using average exchange rates for the respective period. For items impacting our Consolidated Statements of Financial Position, such as Assets and Liabilities, period end rates are used for currency translation purposes.

Several IFRS financial measures are presented on a constant currency adjusted basis to exclude the impact of foreign exchange rate fluctuations. These measures are calculated using the average or period end foreign exchange rates, as appropriate, in effect at the date of the comparative period.

Assumption changes and management actions. In this MD&A, the impact of assumption changes and management actions on shareholders' net income (after-tax) is included in reported net income and is excluded in calculating underlying net income, as described in this MD&A under the heading D - Profitability - 2018 vs. 2017. Note 10.A of our Annual Consolidated Financial Statements shows the pre-tax impact of method and assumption changes on shareholder and participating policyholder Insurance Contract Liabilities net of reinsurance assets, excluding changes in other policy liabilities and assets.

The MD&A view of assumption changes and management actions is the impact on shareholders' net income (after tax). The Annual Consolidated Financial Statement view is a component of the change in total company liabilities. The following table provides a reconciliation of the differences between the two measures:

(\$ millions)	2018	2017	2016
Impact of method and assumption changes on Insurance Contract Liabilities (pre-tax) ⁽¹⁾	278	173	(35)
Less: Participating Policyholders ⁽²⁾	533	181	181
Impact of method and assumption changes excluding participating policyholders (pre-tax)	(255)	(8)	(216)
Less: Tax	(90)	(51)	(114)
Impact of method and assumption changes excluding participating policyholders (after-tax)	(165)	43	(102)
Add: Management Actions (after-tax) ⁽³⁾	23	(243)	153
Other (after-tax) ⁽⁴⁾	(13)	(7)	(6)
Assumption changes and management actions (after-tax) ⁽⁵⁾⁽⁶⁾⁽⁷⁾	(155)	(207)	45

(1) Note 10.A of our Annual Consolidated Financial Statements shows the pre-tax impact of method and assumption changes on shareholder and participating policyholder Insurance contract liabilities net of reinsurance assets, excluding changes in other policy liabilities and assets. The amount shown in the table above is the shareholders' income impact related to the amount shown in Note 10.A of our Annual Consolidated Financial Statements.

(2) Adjustment to remove the pre-tax impact of method and assumption changes on amounts attributed to participating policyholders.

(3) Adjustment to include the after-tax impact of management actions on insurance contract liabilities and investment contract liabilities which include, for example, changes in the prices of in-force products, new or revised reinsurance on in-force business, and material changes to investment policies for assets supporting our liabilities. In the second quarter of 2017, management actions were mainly in SLF U.S., primarily comprised of the expected impact of recapturing certain reinsurance treaties and the expected cost of reinsurance in certain other treaties.

(4) Adjustments to include the after-tax impact of method and assumption changes on investment contracts and other policy liabilities.

(5) Includes the tax impacts of assumption changes and management actions on insurance contract liabilities and investment contract liabilities, reflecting the tax rates in the jurisdictions in which we do business.

(6) Assumption changes and management actions is included in reported net income and is excluded in calculating underlying net income, in this MD&A under the heading D - Profitability - 2018 vs. 2017.

(7) In 2017, the impact on reported net income of an increase of \$81 million is presented as an adjustment to arrive at underlying net income as Assumption changes and management actions. The impact on reported net income of a decrease of \$288 million (\$444 million pre-tax) related to the U.S. tax legislation changes enacted on December 22, 2017, included in the \$(207) million above, is included as part of the U.S. tax reform impact that is reported separately as an adjustment to arrive at underlying net income (see section D - Profitability - iv - U.S. tax reform).

Real estate market sensitivities. Real estate market sensitivities are non-IFRS financial measures for which there are no directly comparable measures under IFRS so it is not possible to provide a reconciliation of these amounts to the most directly comparable IFRS measures.

Other. Management also uses the following non-IFRS financial measures for which there are no comparable financial measures in IFRS: (i) ASO premium and deposit equivalents, mutual fund sales, managed fund sales, insurance sales, and total premiums and deposits; (ii) AUM, mutual fund assets, managed fund assets, other AUM, and assets under administration; (iii) the value of new business, which is used to measure the estimated lifetime profitability of new sales and is based on actuarial calculations; and (iv) assumption changes and management actions, which is a component of our sources of earnings disclosure. Sources of earnings is an alternative presentation of our Consolidated Statements of Operations that identifies and quantifies various sources of income. The Company is required to disclose its sources of earnings by its principal regulator, OSFI.

M. Accounting and Control Matters

1. Critical Accounting Policies and Estimates

Our significant accounting and actuarial policies are described in Notes 1, 2, 3, 5, 6, 7 and 10 of our 2018 Annual Consolidated Financial Statements. Management must make judgments involving assumptions and estimates, some of which may relate to matters that are inherently uncertain, under these policies. The estimates described below are considered particularly significant to understanding our financial performance. As part of our financial control and reporting, judgments involving assumptions and estimates are reviewed by the independent auditor and by other independent advisors on a periodic basis. Accounting policies requiring estimates are applied consistently in the determination of our financial results.

Benefits to Policyholders

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, 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 high end of the range for expenses and in the mid-range or higher for other assumptions. 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.

Critical Accounting Estimates

Significant factors affecting the determination of policyholders' benefits, the methodology by which they are determined, their significance to the Company's financial condition and results of operations are described below.

Non-fixed Income Market Movements

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.

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.

For certain products, including participating insurance and certain forms of universal life policies and annuities, policyholders share investment performance through routine changes in the amount of dividends declared or in the rate of interest credited. These products generally have minimum interest rate guarantees.

Hedging programs are in place to help mitigate the impact of interest rate movements.

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.

Policy Termination Rates

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.

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.

Sensitivities to Best Estimate Assumptions

The sensitivities presented below are forward-looking statements. They include measures of our estimated net income sensitivity to changes in the best estimate assumptions in our insurance contract liabilities based on a starting point and business mix as at December 31, 2018 and as at December 31, 2017, reflecting the update of actuarial method and assumption changes described in this MD&A under the heading Assumption Changes and Management Actions and, where appropriate, taking into account hedging programs in place as at December 31, 2018 and December 31, 2017 described in this MD&A under the heading Market Risk.

These sensitivities represent the Company's estimate of changes in best estimate assumptions that are reasonably likely based on the Company's and/or the industry's historical experience and industry standards and best practices as at December 31, 2018 and December 31, 2017. We have also disclosed in the table below the impact of a 50 basis point change in risk free interest rates and 25% and 10% changes in equity markets to illustrate the impact of immediate market shocks.

Changes to the starting point for interest rates, equity market prices and business mix will result in different estimated sensitivities. Additional information regarding equity and interest rate sensitivities, including key assumptions, can be found under the heading J - Risk Management - 8 - Risk Categories - Market Risk Sensitivities in this document. The following table summarizes the impact these sensitivities would have on our net income.

Critical Accounting Estimate	Sensitivity	2018	2017
(\$ millions, after-tax)			
Interest Rates	50 basis point parallel decrease in interest rates across the entire yield curve	(100)	(100)
	50 basis point parallel increase in interest rates across the entire yield curve	50	50
Equity Markets	25% decrease across all equity markets	(300)	(300)
	10% decrease across all equity markets	(100)	(100)
	10% increase across all equity markets	100	100
	25% increase across all equity markets	250	300
	1% reduction in assumed future equity and real estate returns	(560)	(485)
Mortality	2% increase in the best estimate assumption for insurance products - where higher mortality would be financially adverse	(35)	(55)
	2% decrease in the best estimate assumption for annuity products - where lower mortality would be financially adverse	(120)	(120)
Morbidity	5% adverse change in the best estimate assumption	(185)	(175)
Policy Termination Rates	10% decrease in the termination rate - where fewer terminations would be financially adverse	(250)	(240)
	10% increase in the termination rate - where more terminations would be financially adverse	(195)	(175)
Operating Expenses and Inflation	5% increase in unit maintenance expenses	(175)	(160)

Fair Value of Assets and Liabilities

Debt securities, equity securities and certain other invested assets are designated as FVTPL or AFS and are recorded at fair value in our Consolidated Statements of Financial Position. Changes in fair value of assets designated as FVTPL, and realized gains and losses on sale of FVTPL assets are recorded in income. Changes in fair value of AFS assets are recorded in OCI. For foreign currency translation, exchange differences calculated on the amortized cost of AFS debt securities are recognized in income and 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. Net impairment losses and realized gains and losses on sale of AFS assets are reclassified from OCI to income.

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.

Mortgages and loans are generally carried at amortized cost. The fair value of mortgages and loans, for disclosure purposes, 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.

Derivative financial instruments are recorded at fair value with changes in fair value recorded in income unless the derivative is part of a qualifying hedging relationship for accounting purposes. 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 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.

Investment properties are recorded at fair value with changes in fair value recorded in income. 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.

Due to their nature, the fair value of policy loans and cash are assumed to be equal to their carrying values, which is the amount these assets are recorded at in our Consolidated Statements of Financial Position.

Investments for accounts of segregated fund holders are recorded at fair value with changes in fair value recorded in net realized and unrealized gains (losses) within the segregated fund and are not recorded in our Consolidated Statements of Operations. The fair value of investments for accounts 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 accounts 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 the secured borrowings from mortgage securitization is based on the methodologies and assumptions as described above for asset-backed securities.

The methodologies and assumptions for determining the fair values of investment contract liabilities are included in Note 10.B of our 2018 Annual Consolidated Financial Statements.

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.

As pricing inputs become more or less observable, assets are transferred between levels in the hierarchy. Total gains and losses in income and OCI are calculated assuming transfers into or out of Level 3 occur at the beginning of the period. For a financial instrument that transfers into Level 3 during the reporting period, the entire change in fair value for the period is included in the Level 3 reconciliation schedule in Note 5 to our 2018 Annual Consolidated Financial Statements. For transfers out of Level 3 during the reporting period, the change in fair value for the period is excluded from the Level 3 reconciliation schedule in Note 5 to our 2018 Annual Consolidated Financial Statements. Transfers into Level 3 occur when the inputs used to price the financial instrument lack observable market data and as a result, no longer meet the Level 1 or 2 criteria at the reporting date. Transfers out of Level 3 occur when the pricing inputs become more transparent and satisfy the Level 1 or 2 criteria at the reporting date.

Transfers into and out of Level 3 for financial assets were \$14 million and \$380 million for the year ended December 31, 2018, respectively, compared to \$512 million and \$546 million, respectively, for the year ended December 31, 2017. The total amount of the net realized/unrealized gains (losses) related to financial instruments transferred out of Level 3 during the period, which were excluded from the Level 3 reconciliation, was a loss of \$9 million as at December 31, 2018 compared to a gain of \$14 million as at December 31, 2017.

Additional information on the fair value measurement of investments can be found in Note 5 of our 2018 Annual Consolidated Financial Statements.

Impairment

Management assesses debt and equity securities, mortgages and loans and other invested assets for objective evidence of impairment at each reporting date. 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 that have 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 the financial assets. All equity instruments in an unrealized loss position are reviewed to determine if objective evidence of impairment exists. 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, and a significant or prolonged decline in the fair value of an equity instrument or other invested asset below its cost.

Additional information on the impairment of financial assets can be found in Notes 1 and 6 of our 2018 Annual Consolidated Financial Statements.

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. Goodwill 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 cash generating unit ("CGU") 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. 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 CGU's carrying value to its recoverable amount, which is the higher of fair value less cost to sell and value in use. Impairment losses are recognized immediately and cannot be reversed in future periods.

No impairment charges were recognized in 2018. We had a carrying value of \$5.4 billion in goodwill as at December 31, 2018. Additional information on goodwill can be found in Note 9 of our 2018 Annual Consolidated Financial Statements.

Intangible Assets

Intangible assets consist of finite life and indefinite life intangible assets. Finite life intangible assets are amortized on a straight-line basis over varying periods of up to 40 years, and are charged through operating expenses. The useful lives of finite life intangible assets are reviewed annually, and the amortization is adjusted as necessary. Indefinite life intangibles are not amortized, and are assessed for impairment annually or more frequently if events or changes in circumstances indicate that the asset may be impaired. Impairment is assessed by comparing the carrying values of the indefinite life intangible assets to their recoverable amounts. If the carrying values of the indefinite life intangibles exceed their recoverable amounts, these assets are considered impaired, and a charge for impairment is recognized in our Consolidated Statements of Operations. The recoverable amount of intangible assets is determined using various valuation models, which require management to make certain judgments and assumptions that could affect the estimates of the recoverable amount. There were no impairment charges in 2018 and 2017.

As at December 31, 2018 our finite life intangible assets had a carrying value of \$1,110 million, which reflected the value of the field force, asset administration contracts, and Client relationships acquired as part of the Clarica, CMG Asia, Genworth EBG, Ryan Labs, Prime Advisors, Bentall Kennedy, and the U.S. employee benefits business acquisitions, as well as software costs. Our indefinite life intangible assets had a carrying value of \$668 million as at December 31, 2018. The value of the indefinite life intangible assets reflected fund management contracts of MFS and Bentall Kennedy.

Income Taxes

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. Our provision for income taxes is calculated based on the tax rates and tax laws that have been enacted or substantially enacted by the end of the reporting period.

As a multinational organization, we are subject to taxation in numerous jurisdictions. We seek to operate in a tax efficient manner while ensuring that we are in compliance with all laws and regulations. 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 and that we make

assumptions about the expected timing of realization of deferred income tax assets and liabilities. Tax laws are complex and their interpretation requires significant judgment. The provision for income taxes reflects management's interpretation of the relevant tax laws and its best estimate of the income tax implications of the transactions and events during the period. We believe that our provisions for uncertain tax positions appropriately reflect the risk of tax positions that are under audit, dispute or appeal with tax authorities, or which are otherwise considered to involve uncertainty. The adequacy of our tax provision is reviewed at the end of each reporting period. To the extent that our interpretations differ from those of tax authorities or the timing of realization is not as expected, the provision for income taxes may increase or decrease in future periods to reflect actual experience. The amount of any increase or decrease cannot be reasonably estimated.

Deferred income tax assets are recognized for all deductible temporary differences, carry forward of unused tax losses and unused tax credits to the extent that it is probable that taxable profit will be available against which the temporary differences, unused tax losses and unused tax credits 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 recorded. If it is probable that the benefit of tax losses and tax deductions will not be realized, a deferred income tax asset is not recognized. The assessment requires significant estimates and judgment about future events based on the information available at the reporting date. On December 22, 2017 due to enactment of new U.S. tax law, the U.S. federal corporate tax rate decreased from 35% to 21% effective January 1, 2018. As a result, deferred tax assets and liabilities relating to U.S. temporary differences were revalued at the tax rate expected to apply when the liability is settled or the asset is realized, which decreased to 21%.

From time to time, local governments, in countries in which we operate, enact changes to statutory corporate income tax rates. These changes require us to review and re-measure our deferred tax assets and liabilities as of the date of enactment. As at December 31, 2018, our net deferred tax asset in the Consolidated Statements of Financial Position was \$887 million, primarily in Canada. Any future tax rate reductions in jurisdictions where we carry a net deferred tax asset, could result in a reduction in the carrying value of the deferred tax asset and a corresponding income tax expense at the time of substantial enactment of a rate reduction.

Pension Plans and Other Post-Retirement Benefits

The Company sponsors 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. Our defined benefit pension plans offer benefits based on length of service and final average earnings and certain plans offer some indexation of benefits. We maintain certain supplementary non-contributory defined benefit pension arrangements for eligible employees, which are primarily for benefits which are in excess of local tax limits. In addition to these plans, in some countries the Company sponsors certain post-retirement benefit plans (for medical, dental and/or life insurance benefits) for eligible qualifying employees and their dependents who meet certain requirements.

In Canada, since January 1, 2009, all new employees participate in a defined contribution plan, while existing employees continue to accrue future benefits in the prior plan which provides a defined benefit plan and an optional contributory defined contribution plan.

With the closure of the Canadian defined benefit plans to new entrants, the volatility associated with future service accruals for active members has been limited and will decline over time. As at December 31, 2018, there are no active members in the U.K. and no active employees accruing future service benefits in the U.S. defined benefit plans.

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 continue to implement our plan to de-risk our material defined benefit pension plans Company-wide by systematically shifting the pension asset mix towards liability matching investments over the next few years. The target for our significant plans is to minimize volatility in funded status arising from changes in discount rates and exposure to equity markets.

Due to the long-term nature of these defined benefit plans, the calculation of benefit expenses and accrued benefit obligations depends on various assumptions, including discount rates, rates of compensation increases, health care cost trend rates, retirement ages, mortality rates and termination rates. Based upon consultation with external pension actuaries, management determines the assumptions used for these plans on an annual basis. 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.

Actual experience may differ from that assumed, which would impact the valuation of defined benefit plans and the level of benefit expenses recognized in future years. Details of our pension and post-retirement benefit plans and the key assumptions used for the valuation these plans are included in Note 25 of our 2018 Annual Consolidated Financial Statements.

2. Changes in Accounting Policies

We have included in this section a summary of changes in accounting policies. Where there are references to Notes, these are part of our 2018 Annual Consolidated Financial Statements.

New and Amended International Financial Reporting Standards Adopted in 2018

The following new and amended IFRS are effective for annual periods beginning on or after January 1, 2018, and did not have a material impact on our Consolidated Financial Statements.

In May 2014, the IASB issued IFRS 15 *Revenue from Contracts with Customers* ("IFRS 15"), which replaces IAS 11 *Construction Contracts*, IAS 18 *Revenue* and various interpretations. Amendments to IFRS 15 were issued in September 2015 and April 2016.

IFRS 15 establishes principles about the nature, amount, timing, and uncertainty of revenue arising from contracts with customers. IFRS 15 requires entities to recognize revenue to reflect the transfer of goods or services to customers measured at the amounts an entity expects to be entitled to in exchange for those goods or services. Insurance contracts and revenues arising from those contracts, primarily premium revenue, are not within the scope of this standard. Revenues from service contracts and service components of investment contracts (which are treated as service contracts) that are reported in Fee income and primarily arise from our asset management businesses are within the scope of IFRS 15. IFRS 15 also provides guidance related to the costs to obtain and to fulfill a contract. We adopted IFRS 15 on a cumulative retrospective basis and recognized differences on transition to IFRS 15 as at January 1, 2018 in retained earnings. As a result of the adoption of IFRS 15, we derecognized a portion of our deferred acquisition costs (previously recognized in Other assets) and the related deferred tax liability on our Consolidated Statements of Financial Position, which reduced opening retained earnings by \$44 on an after-tax basis as at January 1, 2018.

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 an optional temporary exemption from applying IFRS 9 *Financial Instruments* ("IFRS 9") ("deferral approach"). On January 1, 2018, we qualified for and elected to take the deferral approach. Consequently, 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 deferral approach are required to provide fair value disclosures separately for those financial assets that pass and fail the Solely Payment of Principal and Interest ("SPPI") test, and disclose credit ratings of financial assets that pass the SPPI test. Financial assets which 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.

In June 2016, the IASB issued *Classification and Measurement of Share-based Payment Transactions*, which amends IFRS 2 *Share-based Payment*. The amendments clarify how to account for certain types of share-based payment transactions, such as the effects of vesting and non-vesting conditions on the measurement of cash-settled share-based payments. These amendments are applicable to awards granted on or after that date and to unvested and vested but unexercised awards outstanding at that date. These amendments were applied prospectively.

In December 2016, the IASB issued *Annual Improvements to IFRSs 2014-2016 Cycle*, which includes minor amendments to IFRS 1 *First-time Adoption of International Financial Reporting Standards* and IAS 28 *Investments in Associates and Joint Ventures* ("IAS 28").

In December 2016, the IASB issued *Transfers of Investment Property (Amendments to IAS 40)*. The amendments to IAS 40 *Investment Property* clarify that an entity shall transfer property to, or from, investment property when, and only when, there is evidence of a change in use.

In December 2016, the IASB issued IFRIC 22 *Foreign Currency Transactions and Advance Consideration* ("IFRIC 22"), which was developed by the IFRS Interpretations Committee. IFRIC 22 clarifies that for purposes of determining the exchange rate in transactions which include the receipt or payment of advance consideration in a foreign currency, the date of the transaction is the date of initial recognition of the non-monetary prepayment asset or deferred income liability.

New and Amended International Financial Reporting Standards to be Adopted in 2019

The following new and amended IFRS were issued by the IASB and are expected to be adopted by us in 2019.

In January 2016, the IASB issued IFRS 16 *Leases* ("IFRS 16"), which replaces IAS 17 *Leases*, and related interpretations. IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases for both lessees and lessors. For lessees, IFRS 16 removes the classification of leases as either operating or financing and requires that all leases to be recognized on the statement of financial position, with certain exemptions allowed by this new standard. The accounting for lessors is substantially unchanged. The standard is effective for annual periods beginning on or after January 1, 2019, to be applied retrospectively, or on a modified retrospective basis. We will be adopting IFRS 16 on a modified retrospective basis. At the time of adoption of IFRS 16, we expect to recognize right-of-use assets of approximately \$800 and lease liabilities of approximately \$900 on our Consolidated Statements of Financial Position. Together with the derecognition of deferred balances previously recognized under IAS 17, the overall impact to retained earnings is not expected to be material.

In June 2017, the IASB issued IFRIC 23 *Uncertainty over Income Tax Treatments* ("IFRIC 23"), which was developed by the IFRS Interpretations Committee. IFRIC 23 clarifies how to apply the recognition and measurement requirements in IAS 12 *Income Taxes* ("IAS 12"), when there is uncertainty over income tax treatments, and requires an entity to determine whether tax treatments should be considered collectively or independently. In addition, IFRIC 23 addresses the assumptions an entity should make about the examination of tax treatments by taxation authorities, as well as how an entity should consider changes in facts and circumstances. IFRIC 23 also provides guidance on how to determine taxable profit (tax loss), tax bases, unused tax losses, unused tax credits, and tax rates, based on whether it is probable that a tax authority will accept an uncertain tax treatment used, or proposed to be used, by an entity in its income tax filings. IFRIC 23 is effective for annual periods beginning on or after January 1, 2019 and is to be applied retrospectively, or on a cumulative retrospective basis. We do not expect IFRIC 23 to have a material impact on our Consolidated Financial Statements.

In October 2017, the IASB issued narrow-scope amendments to IAS 28. The amendments clarify that long-term interests in an associate or joint venture to which the equity method is not applied should be accounted for following the requirements of IFRS 9. The amendments are effective for annual periods beginning on or after January 1, 2019, and are to be applied retrospectively with certain exceptions. As we will not adopt IFRS 9 until 2021, we will be required to apply IAS 39 to the long-term interests in associates or joint ventures covered by these amendments. We do not expect the adoption of these amendments to have a material impact on our Consolidated Financial Statements.

In December 2017, the IASB issued *Annual Improvements to IFRSs 2015-2017 Cycle*, which includes minor amendments to four IFRS standards. The amendments are effective for annual periods beginning on or after January 1, 2019. We do not expect the adoption of these amendments to have a material impact on our Consolidated Financial Statements.

In February 2018, the IASB issued *Plan Amendment, Curtailment or Settlement* which amends IAS 19 *Employee Benefits* ("IAS 19"). Under IAS 19, when an amendment, curtailment or settlement of a defined benefit pension plan occurs, the net defined benefit liability or asset is remeasured. The amendments require an entity to use the updated assumptions from this remeasurement to determine current service cost and net interest for reporting periods after the change to the plan. The amendments are applicable to plan amendments, curtailments or settlements occurring on or after January 1, 2019.

New and Amended International Financial Reporting Standards to be Adopted in 2020 or Later

The following new and amended standards were issued by the IASB and are expected to be adopted by us in 2020 or later.

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. Financial asset classification is based on the cash flow characteristics and the business model in which an asset is held. The classification determines how a financial instrument is accounted for and measured. IFRS 9 also introduces an impairment model for financial instruments not measured at fair value through profit or loss that requires recognition of expected losses at initial recognition of a financial instrument and the recognition of full lifetime expected losses if certain criteria are met. In addition, a new model for hedge accounting was introduced to achieve better alignment with risk management activities. This standard is effective for annual periods beginning on or after January 1, 2018. In October 2017, the IASB issued narrow-scope amendments to IFRS 9. The amendments clarify the classification of certain prepayable financial assets and the accounting of financial liabilities following modification. The amendments are effective for annual periods beginning on or after January 1, 2019. However, pursuant to the aforementioned amendments to IFRS 4, we elected the deferral approach permitted under IFRS 4 to continue to apply IAS 39. We are currently assessing the impact that IFRS 9, along with these amendments, will have on our Consolidated Financial Statements.

In May 2017, the IASB issued IFRS 17, which replaces IFRS 4. IFRS 17 establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts. IFRS 17 requires entities to measure insurance contract liabilities at their current fulfillment values using one of three measurement models, depending on the nature of the contract. IFRS 17 is effective for annual periods beginning on or after January 1, 2021 and is to be applied retrospectively to each group of insurance contracts unless impracticable. If, and only if, it is impracticable to apply IFRS 17 retrospectively for a group of insurance contracts, an entity shall apply IFRS 17 using a modified retrospective approach or a fair value approach.

In November 2018, the IASB tentatively decided to defer the effective date of IFRS 17 by one year, to January 1, 2022. Additionally, the IASB has commenced a process of evaluating the need for making possible amendments to IFRS 17. This discussion will continue into 2019, and will be followed by a public consultation on the proposed amendment(s) before any changes are confirmed.

IFRS 17 will affect how we account for our insurance contracts and how we report our financial performance in our Consolidated Statements of Operations. Any regulatory and tax regimes that are dependent upon IFRS accounting values may also be impacted. In particular, the introduction of IFRS 17 will require revisions to OSFI's LICAT guideline that became effective on January 1, 2018. OSFI has indicated that, in developing the revisions to align the LICAT guideline with the accounting standard, they intend to maintain capital frameworks with current capital policies and minimize the potential industry-wide capital impacts.

The adoption of IFRS 17 will be a significant change for us and for the industry. In order to ensure effective implementation, we have established a transition program for IFRS 17 and dedicated significant resources to the implementation. IFRS 17 requires a more expansive set of data, calculations, external disclosure, analyses and controls than the current accounting standard. This necessitates new technologies to support computational aspects and controls relevant to managing the business under IFRS 17. As a result, the project to implement IFRS 17 is a multi-year suite of enterprise-wide actions, technology upgrades, policy and process changes, education and change management initiatives.

We continue to assess both the potential financial statement and business implications of the standard and have regular discussions on application and interpretation of IFRS 17 with our peers in Canada through industry and professional associations. We are also monitoring and participating in international developments related to the adoption and interpretation of this standard.

In March 2018, the IASB issued a revised *Conceptual Framework for Financial Reporting* ("2018 Conceptual Framework"), which replaces the *Conceptual Framework for Financial Reporting* issued in 2010. The 2018 Conceptual Framework includes revised definitions of an asset and a liability, as well as new guidance on measurement, derecognition, presentation and disclosure. The 2018 Conceptual Framework is effective for annual periods beginning on or after January 1, 2020. We are currently assessing the impact the adoption of this framework will have on our Consolidated Financial Statements.

In October 2018, the IASB issued *Definition of a Business*, which amends IFRS 3 *Business Combinations*. The amendments clarify the definition of a business to assist entities in determining whether a transaction represents a business combination or an acquisition of assets. The amendments are effective for annual periods beginning on or after January 1, 2020, to be applied prospectively. We will assess the impact the adoption of these amendments will have on the accounting treatment of future transactions.

In October 2018, the IASB issued *Definition of Material (Amendments to IAS 1 and IAS 8)*. The amendments clarify the definition of material and provide guidance to improve consistency in its application in IFRS standards. The amendments are effective for annual periods beginning on or after January 1, 2020. We are currently assessing the impact the adoption of these amendments will have on our Consolidated Financial Statements.

3. Disclosure Controls and Procedures

The Company has established disclosure controls and procedures that are designed to provide reasonable assurance that all relevant information is gathered and reported to senior management, including the Company's President and CEO, Executive Vice-President and Chief Financial Officer ("CFO"), and Executive Vice-President, Chief Legal Officer and Public Affairs, on a timely basis so that appropriate decisions can be made regarding public disclosure.

An evaluation of the effectiveness of our disclosure controls and procedures, as defined under rules adopted by the Canadian securities regulatory authorities and the SEC, as at December 31, 2018, was carried out under the supervision of and with the participation of the Company's management, including the CEO and the CFO. Based on our evaluation, the CEO and the CFO concluded that the design and operation of these disclosure controls and procedures were effective as at December 31, 2018.

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of our financial statements in accordance with IFRS.

Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements on a timely basis. Projections of any evaluation of the effectiveness of internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

We conducted an assessment of the effectiveness of our internal control over financial reporting, as of December 31, 2018, based on the framework and criteria established in *Internal Control-Integrated Framework (2013)*, issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that assessment, we have concluded that our internal control over financial reporting was effective as of December 31, 2018.

Our internal control over financial reporting, as of December 31, 2018, has been audited by the Company's external auditor, Deloitte LLP, Independent Registered Public Accounting Firm, who also audited our Annual Consolidated Financial Statements for the year ended December 31, 2018. As stated in the Report of Independent Registered Public Accounting Firm, they have expressed an unqualified opinion on our internal control over financial reporting as of December 31, 2018.

Changes in Internal Control over Financial Reporting

No changes were made in our internal control over financial reporting for the period which began on January 1, 2018 and ended December 31, 2018 that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

N. Legal and Regulatory Proceedings

We are regularly involved in legal actions, both as a defendant and as a plaintiff. Information on legal and regulatory proceedings can be found in Note 23 of our 2018 Annual Consolidated Financial Statements.

O. Forward-looking Statements

From time to time, the Company makes written or oral forward-looking statements within the meaning of certain securities laws, including the "safe harbour" provisions of the United States Private Securities Litigation Reform Act of 1995 and applicable Canadian securities legislation. Forward-looking statements contained in this MD&A include statements (i) relating to our growth strategies, financial objectives, future results of operations, and strategic goals; (ii) concerning the expected impact of the U.S. employee benefits business acquisition completed in 2016 on earnings per share, excluding transaction and integration costs and our expected pre-tax run rate synergies which are described in this MD&A under the heading G - Performance by Business Group - 2 - SLF U.S.; (iii) concerning our medium-term financial objectives which are described in this MD&A under the heading B - Overview - 2 - Financial Objectives, (collectively, our "medium-term financial objectives"); (iv) relating to productivity and expense initiatives, growth initiatives, outlook, and other business objectives; (v) relating to the expected impact of the U.S. tax reform on the Company's tax expense (vi) relating to our expected tax range for future years; (vii) relating to the merger of Bentall Kennedy and GreenOak and our acquisition of a majority stake in the combined entity; (viii) that are predictive in nature or that depend upon or refer to future events or conditions; (ix) set out in this document under the heading J - Risk Management - 8 Risk Categories - Market Risk - Market Risk Sensitivities - Equity Market Sensitivities and Interest Rate Sensitivities; (x) relating to cash flows, anticipated payment obligations, funding requirements and our ability to meet these obligations; (xi) relating to tax provisions; (xii) relating to risks and uncertainties; and (xiii) that include words such as "achieve", "aim", "ambition", "anticipate", "aspiration", "assumption", "believe", "could", "estimate", "expect", "goal", "initiatives", "intend", "may", "objective", "outlook", "plan", "project", "seek", "should", "strategy", "strive", "target", "will" and similar expressions are forward-looking statements. Forward-looking statements include the information concerning our possible or assumed future results of operations. These statements represent our current expectations, estimates and projections regarding future events and are not historical facts. Forward-looking statements are not a guarantee of future performance and involve risks and uncertainties that are difficult to predict. Future results and shareholder value may differ materially from those expressed in these forward-looking statements due to, among other factors, the matters set out in this MD&A under the headings B - Overview - 2 - Financial Objectives; D - Profitability - 2018 vs. 2017; I - Capital and Liquidity Management; J - Risk Management; and M - Accounting and Control Matters - 1 - Critical Accounting Policies and Estimates and in the AIF under the heading Risk Factors, and the factors detailed in SLF Inc.'s other filings with Canadian and U.S. securities regulators, which are available for review at www.sedar.com and www.sec.gov.

Medium-Term Financial Objectives

The Company's medium-term financial objectives set out in B - Overview - 2 - Financial Objectives are forward-looking non-IFRS financial measures. Our ability to achieve those objectives is dependent on our success in achieving growth initiatives and business objectives and on certain key assumptions that include: (i) no significant changes in the level of interest rates; (ii) average total equity market return of approximately 8% per annum; (iii) credit experience in line with best estimate actuarial assumptions; (iv) no significant changes in the level of our regulatory capital requirements; (v) no significant changes to our effective tax rate; (vi) no significant increase in the number of shares outstanding; (vii) other key assumptions include: no material changes to our hedging program, hedging costs that are consistent with our best estimate assumptions, no material assumption changes including updates to the economic scenario generator and no material accounting standard changes; and (viii) our best estimate actuarial assumptions used in determining our insurance and investment contract liabilities. Our underlying ROE is dependent upon capital levels and options for deployment of excess capital. Our medium-term financial objectives do not reflect the indirect effects of interest rate and equity market movements including the potential impacts on goodwill or the current valuation allowance on deferred tax assets as well as other items that may be non-operational in nature.

Our target dividend payout ratio of 40%-50% of our underlying net income assumes that economic conditions and our results will enable us to maintain our payout ratio in the target range, while maintaining a strong capital position. The declaration, amount and payment of dividends is subject to the approval of SLF Inc.'s Board of Directors and our compliance with the capital requirements in the Insurance Companies Act (Canada). Additional information on dividends is provided in the section I - Capital and Liquidity Management - 3 - Shareholder Dividends in this MD&A.

Although considered reasonable by the Company, we may not be able to achieve our medium-term financial objectives as the assumptions on which these objectives were based may prove to be inaccurate. Accordingly, our actual results could differ materially from our medium-term financial objectives as described in the section B - Overview - 2 - Financial Objectives in this MD&A. Our medium-term financial objectives do not constitute guidance.

Risk Factors

Important risk factors that could cause our assumptions and estimates, and expectations and projections to be inaccurate and our actual results or events to differ materially from those expressed in or implied by the forward-looking statements contained in this document, including our medium-term financial objectives, are set out below. The realization of our forward-looking statements, including our ability to meet our medium-term financial objectives, essentially depends on our business performance which, in turn, is subject to many risks. Factors that could cause actual results to differ materially from expectations include, but are not limited to: **credit risks** - related to issuers of securities held in our investment portfolio, debtors, structured securities, reinsurers, counterparties, other financial institutions and other entities; **market risks** - related to the performance of equity markets; changes or volatility in interest rates or credit spreads or swap spreads; real estate investments; and fluctuations in foreign currency exchange rates; **insurance risks** - related to policyholder behaviour; mortality experience, morbidity experience and longevity; product design and pricing; the impact of higher-than-expected future expenses; and the availability, cost and effectiveness of reinsurance; **business and strategic risks** - related to global economic and political conditions; the design and implementation of business strategies; changes in distribution channels or Client behaviour including risks relating to market conduct by intermediaries and agents; the impact of competition; the performance of our investments and investment portfolios managed for Clients such as segregated and mutual funds; changes in the legal or regulatory environment, including capital requirements and tax laws; the environment, environmental laws and regulations; tax matters, including estimates and judgments used in calculating taxes; our international operations, including our joint ventures; market conditions that affect our capital position or ability to raise capital; downgrades in financial strength or credit ratings; and the impact of mergers, acquisitions and divestitures; **operational risks** - related to breaches or failure of information system security and privacy, including cyber-attacks; our ability to attract and retain employees; legal, regulatory compliance and market conduct, including the impact of regulatory inquiries and investigations; the execution and integration of mergers, acquisitions, strategic investments and divestitures; our information technology infrastructure; a failure of information systems and Internet-enabled technology; dependence on third-party relationships, including outsourcing arrangements; business continuity; model errors; information management; and **liquidity risks** - the possibility that we will not be able to fund all cash outflow commitments as they fall due.

The following risk factors are related to the merger of Bentall Kennedy and GreenOak and our acquisition of a majority stake in the combined entity that could have a material adverse effect on our forward-looking statements: (1) the ability of the parties to complete the transaction; (2) failure of the parties to obtain necessary consents and approvals or to otherwise satisfy the conditions to the completion of the transaction in a timely manner, or at all; (3) our ability to realize the financial and strategic benefits of the transaction; (4) failure to effectively or efficiently reorganize the operations of Bentall Kennedy and GreenOak after the transaction has closed; and (5) the impact of the announcement of the transaction and the dedication of Sun Life Financial's resources to completing the transaction on Bentall Kennedy and GreenOak. These risks all could have an impact on our business relationships (including with future and prospective employees, Clients, distributors and partners) and could have a material adverse effect on our current and future operations, financial conditions and prospects.

The Company does not undertake any obligation to update or revise its forward-looking statements to reflect events or circumstances after the date of this document or to reflect the occurrence of unanticipated events, except as required by law.

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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 annual report to shareholders 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 shareholders. Other key responsibilities of the Audit Committee include reviewing the Company's existing internal control procedures and planned revisions to those procedures, and advising the Board on auditing matters and financial reporting issues.

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 Financial Inc. 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.

Management conducted an assessment of the effectiveness of the Company's internal control over financial reporting, as of December 31, 2018, based on the framework and criteria established in *Internal Control – Integrated Framework (2013)*, issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that assessment, management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2018.

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 Company's foreign operations 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 Registered Public Accounting Firm, has audited the Company's internal control over financial reporting as of December 31, 2018, in addition to auditing the Company's Consolidated Financial Statements for the years ended December 31, 2018 and December 31, 2017. Its reports to the Board and shareholders express unqualified opinions and accompany these Consolidated Financial Statements. Deloitte LLP meets separately with both management and the Audit Committee to discuss the results of its audit.



Dean A. Connor
President and Chief Executive Officer



Kevin D. Strain, CPA, CA
Executive Vice-President and Chief Financial Officer

Toronto, Ontario, Canada
February 13, 2019

Appointed Actuary's Report

THE SHAREHOLDERS AND DIRECTORS OF SUN LIFE FINANCIAL INC.

I have valued the policy liabilities and reinsurance recoverables of Sun Life Financial Inc. and its subsidiaries for its Consolidated Statements of Financial Position at December 31, 2018 and December 31, 2017 and their change in the Consolidated Statements of Operations for the year ended December 31, 2018 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 13, 2019

Independent Auditor's Report

To the Shareholders and the Board of Directors of Sun Life Financial Inc.

Opinion

We have audited the consolidated financial statements of Sun Life Financial Inc. and its subsidiaries (the "Company"), which comprise the consolidated statements of financial position as at December 31, 2018 and 2017, 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, 2018 and 2017, 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.

Other Information

Management is responsible for the other information. The other information comprises:

- Management's Discussion and Analysis
- The information, other than the financial statements and our auditor's reports thereon, in the Annual Report
- The information, other than the financial statements and our auditor's reports thereon, in the Annual Report on Form 40-F.

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.

We obtained Management's Discussion and Analysis and the Annual Report on Form 40-F prior to the date of this auditor's report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in this auditor's report. We have nothing to report in this regard.

The Annual Report is expected to be made available to us after the date of the auditor's reports. 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.



Chartered Professional Accountants
 Licensed Public Accountants
 Toronto, Ontario, Canada
 February 13, 2019

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Sun Life Financial Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial position of Sun Life Financial Inc. and subsidiaries (the "Company") as at December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income (loss), changes in equity and cash flows, for each of the two years in the period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as at December 31, 2018 and 2017, and its financial performance and its cash flows for each of the two years in the period ended December 31, 2018, in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 13, 2019, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

The logo for Deloitte LLP, featuring the word "Deloitte" in a stylized script font followed by "LLP" in a bold, sans-serif font.

Chartered Professional Accountants
Licensed Public Accountants
Toronto, Ontario, Canada
February 13, 2019

We have served as the Company's auditor since 1875.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Sun Life Financial Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Sun Life Financial Inc. and subsidiaries (the "Company") as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2018, of the Company and our report dated February 13, 2019, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Financial Reporting Responsibilities report. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The logo for Deloitte LLP, featuring the word "Deloitte" in a stylized script font followed by "LLP" in a bold, sans-serif font.

Chartered Professional Accountants
Licensed Public Accountants
Toronto, Ontario, Canada
February 13, 2019

CONSOLIDATED STATEMENTS OF OPERATIONS

For the years ended December 31, (in millions of Canadian dollars except for per share amounts)	2018	2017
Revenue		
Premiums		
Gross	\$ 20,981	\$ 19,838
Less: Ceded	2,339	4,557
Net premiums	18,642	15,281
Net investment income (loss):		
Interest and other investment income (Note 5)	5,641	5,413
Fair value and foreign currency changes on assets and liabilities (Note 5)	(3,373)	2,603
Net gains (losses) on available-for-sale assets	121	195
Net investment income (loss)	2,389	8,211
Fee income (Note 17)	5,966	5,842
Total revenue	26,997	29,334
Benefits and expenses		
Gross claims and benefits paid (Note 10)	15,986	15,353
Increase (decrease) in insurance contract liabilities (Note 10)	312	5,327
Decrease (increase) in reinsurance assets (Note 10)	97	821
Increase (decrease) in investment contract liabilities (Note 10)	(31)	41
Reinsurance expenses (recoveries) (Note 11)	(2,021)	(4,373)
Commissions	2,339	2,403
Net transfer to (from) segregated funds (Note 22)	(308)	(119)
Operating expenses (Note 18)	6,432	6,410
Premium taxes	375	379
Interest expense	305	303
Total benefits and expenses	23,486	26,545
Income (loss) before income taxes	3,511	2,789
Less: Income tax expense (benefit) (Note 20)	597	302
Total net income (loss)	2,914	2,487
Less: Net income (loss) attributable to participating policyholders (Note 21)	298	245
Shareholders' net income (loss)	2,616	2,242
Less: Preferred shareholders' dividends	94	93
Common shareholders' net income (loss)	\$ 2,522	\$ 2,149
Average exchange rates during the reporting periods:		
U.S. dollars	1.30	1.30
Earnings (loss) per share (Note 26)		
Basic earnings (loss) per share	\$ 4.16	\$ 3.51
Diluted earnings (loss) per share	\$ 4.14	\$ 3.49
Dividends per common share	\$ 1.905	\$ 1.745

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)	2018	2017
Total net income (loss)	\$ 2,914	\$ 2,487
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)	911	(737)
Change in unrealized gains (losses) on available-for-sale assets:		
Unrealized gains (losses)	(313)	247
Reclassifications to net income (loss)	(89)	(112)
Change in unrealized gains (losses) on cash flow hedges:		
Unrealized gains (losses)	(10)	3
Reclassifications to net income (loss)	—	(8)
Share of other comprehensive income (loss) in joint ventures and associates:		
Unrealized gains (losses)	7	(31)
Total items that may be reclassified subsequently to income	506	(638)
Items that will not be reclassified subsequently to income:		
Remeasurement of defined benefit plans	84	(69)
Revaluation surplus on transfer to investment properties (Note 5.A)	—	139
Total items that will not be reclassified subsequently to income	84	70
Total other comprehensive income (loss)	590	(568)
Total comprehensive income (loss)	3,504	1,919
Less: Participating policyholders' comprehensive income (loss) (Note 21)	303	238
Shareholders' comprehensive income (loss)	\$ 3,201	\$ 1,681

INCOME TAXES INCLUDED IN OTHER COMPREHENSIVE INCOME (LOSS)

For the years ended December 31, (in millions of Canadian dollars)	2018	2017
Income tax benefit (expense):		
Items that may be reclassified subsequently to income:		
Unrealized foreign currency translation gains / losses	\$ (56)	\$ —
Unrealized gains / losses on available-for-sale assets	58	(92)
Reclassifications to net income for available-for-sale assets	31	39
Unrealized gains / losses on cash flow hedges	4	(1)
Reclassifications to net income for cash flow hedges	—	3
Total items that may be reclassified subsequently to income	37	(51)
Items that will not be reclassified subsequently to income:		
Remeasurement of defined benefit plans	(17)	22
Revaluation surplus on transfer to investment properties (Note 5.A)	—	(33)
Total items that will not be reclassified subsequently to income	(17)	(11)
Total income tax benefit (expense) included in other comprehensive income (loss)	\$ 20	\$ (62)

The attached notes form part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

As at December 31, (in millions of Canadian dollars)

	2018	2017
Assets		
Cash, cash equivalents and short-term securities (Note 5)	\$ 9,506	\$ 8,890
Debt securities (Notes 5 and 6)	74,443	72,619
Equity securities (Notes 5 and 6)	4,634	6,020
Mortgages and loans (Notes 5 and 6)	46,822	42,805
Derivative assets (Notes 5 and 6)	1,112	1,478
Other invested assets (Note 5)	4,830	4,154
Policy loans (Note 5)	3,222	3,106
Investment properties (Note 5)	7,157	7,067
Invested assets	151,726	146,139
Other assets (Note 8)	4,498	4,408
Reinsurance assets (Notes 10 and 11)	4,141	4,028
Deferred tax assets (Note 20)	1,209	1,295
Intangible assets (Note 9)	1,779	1,667
Goodwill (Note 9)	5,412	5,183
Total general fund assets	168,765	162,720
Investments for account of segregated fund holders (Note 22)	103,062	106,392
Total assets	\$ 271,827	\$ 269,112
Liabilities and equity		
Liabilities		
Insurance contract liabilities (Note 10)	\$ 121,923	\$ 117,785
Investment contract liabilities (Note 10)	3,164	3,082
Derivative liabilities (Notes 5 and 6)	2,295	1,756
Deferred tax liabilities (Note 20)	322	403
Other liabilities (Note 12)	12,153	11,987
Senior debentures (Note 13)	1,299	1,299
Subordinated debt (Note 14)	3,039	3,437
Total general fund liabilities	144,195	139,749
Insurance contracts for account of segregated fund holders (Note 22)	96,663	99,121
Investment contracts for account of segregated fund holders (Note 22)	6,399	7,271
Total liabilities	\$ 247,257	\$ 246,141
Equity		
Issued share capital and contributed surplus	\$ 10,749	\$ 10,911
Shareholders' retained earnings and accumulated other comprehensive income	12,957	11,410
Total shareholders' equity	23,706	22,321
Participating policyholders' equity	864	650
Total equity	\$ 24,570	\$ 22,971
Total liabilities and equity	\$ 271,827	\$ 269,112

Exchange rates at the end of the reporting periods:

U.S. dollars 1.36 1.26

The attached notes form part of these Consolidated Financial Statements.

Approved on behalf of the Board of Directors on February 13, 2019.



Dean A. Connor
President and Chief Executive Officer



Sara G. Lewis
Director

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

For the years ended December 31, (in millions of Canadian dollars)

2018

2017

Shareholders:

Preferred shares (Note 15)

Balance, beginning and end of year	\$ 2,257	\$ 2,257
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Common shares (Note 15)

Balance, beginning of year	8,582	8,614
Stock options exercised	16	18
Common shares purchased for cancellation	(183)	(50)
Common shares issued as consideration for business acquisition	4	—
Balance, end of year	8,419	8,582

Contributed surplus

Balance, beginning of year	72	72
Share-based payments	4	3
Stock options exercised	(3)	(3)
Balance, end of year	73	72

Retained earnings

Balance, beginning of year	10,305	9,360
Adjustment for change in accounting policy (Note 2)	(44)	—
Balance, beginning of year, after change in accounting policy	10,261	9,360
Net income (loss)	2,616	2,242
Dividends on common shares	(1,147)	(1,066)
Dividends on preferred shares	(94)	(93)
Common shares purchased for cancellation (Note 15)	(458)	(125)
Transfer from accumulated other comprehensive income (loss)	—	(13)
Transfer from participating policyholders' equity (Note 21)	89	—
Balance, end of year	11,267	10,305

Accumulated other comprehensive income (loss), net of taxes (Note 27)

Balance, beginning of year	1,105	1,653
Total other comprehensive income (loss) for the year	585	(561)
Transfer to retained earnings	—	13
Balance, end of year	1,690	1,105

Total shareholders' equity, end of year

\$ 23,706	\$ 22,321
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Participating policyholders:

Balance, beginning of year	\$ 650	\$ 412
Net income (loss) (Note 21)	298	245
Total other comprehensive income (loss) for the year (Note 27)	5	(7)
Transfer to retained earnings (Note 21)	(89)	—

Total participating policyholders' equity, end of year

\$ 864	\$ 650
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Total equity

\$ 24,570	\$ 22,971
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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)	2018	2017
Cash flows provided by (used in) operating activities		
Income (loss) before income taxes	\$ 3,511	\$ 2,789
Adjustments:		
Interest expense related to financing activities	247	247
Increase (decrease) in insurance and investment contract liabilities	281	5,368
Decrease (increase) in reinsurance assets	97	821
Realized and unrealized (gains) losses and foreign currency changes on invested assets	3,252	(2,798)
Sales, maturities and repayments of invested assets	62,387	55,973
Purchases of invested assets	(65,353)	(60,633)
Income taxes received (paid)	(307)	(436)
Mortgage securitization (Note 5)	96	214
Other operating activities	(377)	439
Net cash provided by (used in) operating activities	3,834	1,984
Cash flows provided by (used in) investing activities		
Net (purchase) sale of property and equipment	(85)	(182)
Investment in and transactions with joint ventures and associates (Note 16)	(64)	(121)
Dividends received from joint ventures and associates (Note 16)	34	36
Acquisitions, net of cash and cash equivalents acquired (Note 3) ⁽¹⁾	—	(61)
Other investing activities	(165)	(11)
Net cash provided by (used in) investing activities	(280)	(339)
Cash flows provided by (used in) financing activities		
Increase in (repayment of) borrowed funds	(40)	(45)
Issuance of subordinated debt, net of issuance costs (Note 14)	—	398
Redemption of senior debentures and subordinated debt (Notes 13 and 14)	(400)	(800)
Issuance of common shares on exercise of stock options	13	15
Common shares purchased for cancellation (Note 15)	(641)	(175)
Dividends paid on common and preferred shares	(1,227)	(1,155)
Interest expense paid	(271)	(257)
Net cash provided by (used in) financing activities	(2,566)	(2,019)
Changes due to fluctuations in exchange rates	250	(179)
Increase (decrease) in cash and cash equivalents	1,238	(553)
Net cash and cash equivalents, beginning of year	5,956	6,509
Net cash and cash equivalents, end of year	7,194	5,956
Short-term securities, end of year	2,208	2,794
Net cash, cash equivalents and short-term securities, end of year (Note 5)	\$ 9,402	\$ 8,750

(1) Consists of total cash consideration paid of \$100, less cash and cash equivalents acquired of \$39 in 2017.

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 Financial Inc. ("SLF Inc.") is a publicly traded company domiciled in Canada and is the holding company of Sun Life Assurance Company of Canada ("Sun Life Assurance"). Both companies are incorporated under the Insurance Companies Act (Canada), and are regulated by the Office of the Superintendent of Financial Institutions, Canada ("OSFI"). SLF Inc. and its subsidiaries are collectively referred to as "us", "our", "ours", "we", "the Enterprise", or "the Company". 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 ("U.K."). We also operate mutual fund and investment management businesses, primarily in Canada, the U.S., and Asia.

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 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 by us.

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").

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 Acquisitions 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 Acquisitions Note 9 Goodwill and Intangible Assets
Determination of control for purpose of consolidation	Note 1 Basis of Consolidation Note 16 Interests in Other Entities
Share-based payments	Note 19 Share-Based Payments

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.

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 investment funds that we consolidate are recorded as third-party interest in consolidated investment funds in Other liabilities. 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 SLF Inc., 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 SLF Inc. 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 SLF Inc. or its subsidiaries hold 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 SLF Inc., 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 SLF Inc. 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.

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.

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, and property and equipment. 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.

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.

Intangible Assets

Intangible assets consist of finite life and indefinite life intangible assets. Finite life intangible assets are amortized on a straight-line basis over varying periods of up to 40 years, and are charged through operating expenses. The useful lives of finite life intangible assets are reviewed annually, and the amortization is adjusted as necessary. Indefinite life intangibles are not amortized, and are assessed for impairment annually or more frequently if events or changes in circumstances indicate that the asset may be impaired. Impairment is assessed by comparing the carrying values of the indefinite life intangible assets to their recoverable amounts. If the carrying values of the indefinite life intangibles exceed their recoverable amounts, these assets are considered impaired, and a charge for impairment is recognized in our Consolidated Statements of Operations. The recoverable amount of intangible assets is determined using various valuation models, which require management to make certain judgments and assumptions that could affect the estimates of the recoverable amount.

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 Canadian Asset Liability Method ("CALM") of valuation of insurance contract liabilities satisfies the IFRS 4 *Insurance Contracts* ("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, repurchase agreements, accrued expenses and taxes, senior financing and provisions. 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.

Senior Debentures and Subordinated Debt

Senior debentures and subordinated debt 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 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

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 SLF Inc. are recognized in the period in which they are authorized or approved. Dividends that have been reinvested in additional common shares under the Dividend Reinvestment and Share Purchase Plan ("DRIP") are also reflected as dividends within retained earnings. Where SLF Inc. has issued common shares from treasury under the DRIP, the additional shares have been reflected in common shares.

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

Stock options of SLF Inc. granted to employees are accounted for as equity-settled share-based payment transactions. The total compensation expense for stock options is computed based on the fair value of the stock option at the date of grant and the estimated number of options expected to vest at the end of the vesting period. The expense is recognized over the vesting period as compensation expense in Operating expenses in our Consolidated Statements of Operations, with an offset to contributed surplus in our Consolidated Statements of Changes in Equity. When options are exercised, new common shares are issued, contributed surplus is reversed and the common shares issued are credited to common shares in our Consolidated Statements of Changes in Equity.

Other 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.

Share-based payment awards within MFS Investment Management ("MFS"), which are based on their own shares, are accounted for as cash-settled share-based payment awards. The vested and unvested awards, as well as the shares that have been issued under these plans, are recognized as liabilities because MFS has a practice of purchasing the issued shares from employees after a specified holding period. 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 accrued over the vesting period and are measured at fair value at each reporting period with the change in fair value recognized as compensation expense in Operating expenses in our Consolidated Statements of Operations. The liabilities are settled in cash when the shares are purchased from the employees.

Basic and Diluted Earnings Per Share ("EPS")

Basic EPS is calculated by dividing the common shareholders' net income by the weighted average number of common shares issued and outstanding.

Diluted EPS adjusts common shareholders' net income and the weighted average number of common shares for the effects of all dilutive potential common shares under the assumption that convertible instruments are converted and that outstanding options are exercised. Diluted EPS is calculated by dividing the adjusted common shareholders' net income by the adjusted weighted average number of common shares outstanding. For convertible instruments, common shareholders' net income is increased by the after-tax expense on the convertible instrument while the weighted average common shares are increased by the number of common shares that would be issued at conversion. For stock options, it is assumed that the proceeds from the exercise of options whose exercise price is less than the average market price of common shares during the period are used to repurchase common shares at the average market price for the period. The difference between the number of common shares issued for the exercise of the dilutive options and the number of common shares that would have been repurchased at the average market price of the common shares during the period is adjusted to the weighted average number of common shares outstanding.

2. Changes in Accounting Policies

2.A New and Amended International Financial Reporting Standards Adopted in 2018

2.A.i IFRS 15 *Revenue from Contracts with Customers*

In May 2014, the IASB issued IFRS 15 *Revenue from Contracts with Customers* ("IFRS 15"), which replaces IAS 11 *Construction Contracts*, IAS 18 *Revenue* and various interpretations. Amendments to IFRS 15 were issued in September 2015 and April 2016. IFRS 15 establishes principles about the nature, amount, timing, and uncertainty of revenue arising from contracts with customers.

IFRS 15 requires entities to recognize revenue to reflect the transfer of goods or services to customers measured at the amounts an entity expects to be entitled to in exchange for those goods or services. Insurance contracts and revenues arising from those contracts, primarily premium revenue, are not within the scope of this standard. Revenues from service contracts and service components of investment contracts (which are treated as service contracts) that are reported in Fee income and primarily arise from our asset management businesses are within the scope of IFRS 15. IFRS 15 also provides guidance related to the costs to obtain and to fulfill a contract. We adopted IFRS 15 on a cumulative retrospective basis and recognized differences on transition to IFRS 15 as at January 1, 2018 in retained earnings. As a result of the adoption of IFRS 15, we derecognized a portion of our deferred acquisition costs (previously recognized in Other assets) and the related deferred tax liability on our Consolidated Statements of Financial Position, which reduced opening retained earnings by \$44 on an after-tax basis as at January 1, 2018.

Additional disclosure on revenue from contracts with customers is included in Note 17.

2.A.ii Amendments to IFRS 4 (IFRS 9 deferral approach)

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 an optional temporary exemption from applying IFRS 9 *Financial Instruments* ("IFRS 9") ("deferral approach"). On January 1, 2018, we qualified for and elected to take the deferral approach as our activities are predominantly connected with insurance in accordance with IFRS standards. Consequently, 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 deferral approach are required to disclose fair value and changes in fair value separately for (i) those financial assets that pass the Solely Payment of Principal and Interest ("SPPI") test, excluding any financial asset that is managed and whose performance is evaluated on a fair value basis; and (ii) all other financial assets, including financial assets that are managed and their performance is evaluated on a fair value basis. We are also required to disclose credit ratings of financial assets that pass the SPPI test. Financial assets which 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. See Note 5.A.i for disclosure of the carrying value and fair value of our financial assets as at December 31, 2018 and 2017. Except for Debt securities designated as AFS and Mortgages and loans, our financial assets are managed and their performance is evaluated on a fair value basis.

The following table includes these disclosures:

(\$ billions)	IAS 39 Classification	December 31, 2018	
		SPPI	Non-SPPI
Debt securities	AFS	12.9	0.1
Mortgages and loans supporting Insurance contract liabilities ⁽¹⁾	Amortized cost	43.8	—
Mortgages and loans not supporting Insurance contract liabilities	Amortized cost	4.4	0.2

(1) Because we use CALM to value our insurance contract liabilities, 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.

Note 6.A.v discloses the carrying value of Debt securities and Mortgages and loans by credit risk rating. Debt securities designated as AFS with a credit rating below investment grade have a carrying value of \$0.1 billion as at December 31, 2018. Mortgages and loans with a credit rating below investment grade have a carrying value of \$2.1 billion as at December 31, 2018.

2.A.iii Other New and Amended IFRS

The following new and amended IFRS are effective for annual periods beginning on or after January 1, 2018, and did not have a material impact on our Consolidated Financial Statements.

In June 2016, the IASB issued *Classification and Measurement of Share-based Payment Transactions*, which amends IFRS 2 *Share-based Payment*. The amendments clarify how to account for certain types of share-based payment transactions, such as the effects of vesting and non-vesting conditions on the measurement of cash-settled share-based payments. These amendments are applicable to awards granted on or after that date and to unvested and vested but unexercised awards outstanding at that date. These amendments were applied prospectively.

In December 2016, the IASB issued *Annual Improvements to IFRSs 2014-2016 Cycle*, which includes minor amendments to IFRS 1 *First-time Adoption of International Financial Reporting Standards* and IAS 28 *Investments in Associates and Joint Ventures* ("IAS 28").

In December 2016, the IASB issued *Transfers of Investment Property (Amendments to IAS 40)*. The amendments to IAS 40 *Investment Property* clarify that an entity shall transfer property to, or from, investment property when, and only when, there is evidence of a change in use.

In December 2016, the IASB issued IFRIC 22 *Foreign Currency Transactions and Advance Consideration* ("IFRIC 22"), which was developed by the IFRS Interpretations Committee. IFRIC 22 clarifies that for purposes of determining the exchange rate in transactions which include the receipt or payment of advance consideration in a foreign currency, the date of the transaction is the date of initial recognition of the non-monetary prepayment asset or deferred income liability.

2.B New and Amended International Financial Reporting Standards to be Adopted in 2019

The following new and amended IFRS were issued by the IASB and are expected to be adopted by us in 2019.

In January 2016, the IASB issued IFRS 16 *Leases* ("IFRS 16"), which replaces IAS 17 *Leases*, and related interpretations. IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases for both lessees and lessors. For lessees, IFRS 16 removes the classification of leases as either operating or financing and requires that all leases to be recognized on the statement of financial position, with certain exemptions allowed by this new standard. The accounting for lessors is substantially

unchanged. The standard is effective for annual periods beginning on or after January 1, 2019, to be applied retrospectively, or on a modified retrospective basis. We will be adopting IFRS 16 on a modified retrospective basis. At the time of adoption of IFRS 16, we expect to recognize right-of-use assets of approximately \$800 and lease liabilities of approximately \$900 on our Consolidated Statements of Financial Position. Together with the derecognition of deferred balances previously recognized under IAS 17, the overall impact to retained earnings is not expected to be material.

In June 2017, the IASB issued IFRIC 23 *Uncertainty over Income Tax Treatments* ("IFRIC 23"), which was developed by the IFRS Interpretations Committee. IFRIC 23 clarifies how to apply the recognition and measurement requirements in IAS 12 *Income Taxes* ("IAS 12"), when there is uncertainty over income tax treatments, and requires an entity to determine whether tax treatments should be considered collectively or independently. In addition, IFRIC 23 addresses the assumptions an entity should make about the examination of tax treatments by taxation authorities, as well as how an entity should consider changes in facts and circumstances. IFRIC 23 also provides guidance on how to determine taxable profit (tax loss), tax bases, unused tax losses, unused tax credits, and tax rates, based on whether it is probable that a tax authority will accept an uncertain tax treatment used, or proposed to be used, by an entity in its income tax filings. IFRIC 23 is effective for annual periods beginning on or after January 1, 2019 and is to be applied retrospectively, or on a cumulative retrospective basis. We do not expect IFRIC 23 to have a material impact on our Consolidated Financial Statements.

In October 2017, the IASB issued narrow-scope amendments to IAS 28. The amendments clarify that long-term interests in an associate or joint venture to which the equity method is not applied should be accounted for following the requirements of IFRS 9. The amendments are effective for annual periods beginning on or after January 1, 2019, and are to be applied retrospectively with certain exceptions. As we will not adopt IFRS 9 until 2021, we will be required to apply IAS 39 to the long-term interests in associates or joint ventures covered by these amendments. We do not expect the adoption of these amendments to have a material impact on our Consolidated Financial Statements.

In December 2017, the IASB issued *Annual Improvements to IFRSs 2015-2017 Cycle*, which includes minor amendments to four IFRS standards. The amendments are effective for annual periods beginning on or after January 1, 2019. We do not expect the adoption of these amendments to have a material impact on our Consolidated Financial Statements.

In February 2018, the IASB issued *Plan Amendment, Curtailment or Settlement* which amends IAS 19 *Employee Benefits* ("IAS 19"). Under IAS 19, when an amendment, curtailment or settlement of a defined benefit pension plan occurs, the net defined benefit liability or asset is remeasured. The amendments require an entity to use the updated assumptions from this remeasurement to determine current service cost and net interest for reporting periods after the change to the plan. The amendments are applicable to plan amendments, curtailments or settlements occurring on or after January 1, 2019.

2.C New and Amended International Financial Reporting Standards to be Adopted in 2020 or Later

The following new and amended standards were issued by the IASB and are expected to be adopted by us in 2020 or later.

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. Financial asset classification is based on the cash flow characteristics and the business model in which an asset is held. The classification determines how a financial instrument is accounted for and measured. IFRS 9 also introduces an impairment model for financial instruments not measured at fair value through profit or loss that requires recognition of expected losses at initial recognition of a financial instrument and the recognition of full lifetime expected losses if certain criteria are met. In addition, a new model for hedge accounting was introduced to achieve better alignment with risk management activities. This standard is effective for annual periods beginning on or after January 1, 2018. In October 2017, the IASB issued narrow-scope amendments to IFRS 9. The amendments clarify the classification of certain prepayable financial assets and the accounting of financial liabilities following modification. The amendments are effective for annual periods beginning on or after January 1, 2019. However, pursuant to the aforementioned amendments to IFRS 4, we elected the deferral approach permitted under IFRS 4 to continue to apply IAS 39. We are currently assessing the impact that IFRS 9, along with these amendments, will have on our Consolidated Financial Statements.

In May 2017, the IASB issued IFRS 17, which replaces IFRS 4. IFRS 17 establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts. IFRS 17 requires entities to measure insurance contract liabilities at their current fulfillment values using one of three measurement models, depending on the nature of the contract. IFRS 17 is effective for annual periods beginning on or after January 1, 2021 and is to be applied retrospectively to each group of insurance contracts unless impracticable. If, and only if, it is impracticable to apply IFRS 17 retrospectively for a group of insurance contracts, an entity shall apply IFRS 17 using a modified retrospective approach or a fair value approach. In November 2018, the IASB tentatively decided to defer the effective date of IFRS 17 by one year, to January 1, 2022. IFRS 17 will affect how we account for our insurance contracts and how we report our financial performance in our Consolidated Statements of Operations. We are currently assessing the impact that IFRS 17 will have on our Consolidated Financial Statements.

In March 2018, the IASB issued a revised *Conceptual Framework for Financial Reporting* ("2018 Conceptual Framework"), which replaces the *Conceptual Framework for Financial Reporting* issued in 2010. The 2018 Conceptual Framework includes revised definitions of an asset and a liability, as well as new guidance on measurement, derecognition, presentation and disclosure. The 2018 Conceptual Framework is effective for annual periods beginning on or after January 1, 2020. We are currently assessing the impact the adoption of this framework will have on our Consolidated Financial Statements.

In October 2018, the IASB issued *Definition of a Business*, which amends IFRS 3 *Business Combinations*. The amendments clarify the definition of a business to assist entities in determining whether a transaction represents a business combination or an acquisition of assets. The amendments are effective for annual periods beginning on or after January 1, 2020, to be applied prospectively. We will assess the impact the adoption of these amendments will have on the accounting treatment of future transactions.

In October 2018, the IASB issued *Definition of Material (Amendments to IAS 1 and IAS 8)*. The amendments clarify the definition of material and provide guidance to improve consistency in its application in IFRS standards. The amendments are effective for annual periods beginning on or after January 1, 2020. We are currently assessing the impact the adoption of these amendments will have on our Consolidated Financial Statements.

3. Acquisitions

Pending Acquisition

On December 19, 2018, we entered into an agreement with GreenOak Real Estate ("GreenOak"), a global real estate investment firm, to merge GreenOak with the Bentall Kennedy group of companies and to acquire 56% of the combined entity ("Bentall GreenOak"), with the right to approximately 90% of Bentall GreenOak's earnings over 8.5 years and the ability to acquire the remaining interest in the future. The combined entity will be reported in our Sun Life Financial Asset Management ("SLF Asset Management") business segment. The acquisition of 56% of Bentall GreenOak is expected to close in the first half of 2019, subject to receipt of regulatory approvals and satisfaction of customary closing conditions.

Acquisition in Sun Life Financial Asia

On October 3, 2017, we completed the first stage of our acquisition of the pension business of FWD Life Insurance Company (Bermuda) Limited ("FWD") for total consideration of approximately \$105, consisting of \$92 initial cash consideration and estimated contingent consideration of \$13 to be paid if certain future performance targets are achieved. The first stage included the acquisition of the Mandatory Provident Fund business and the commencement of an exclusive 15-year distribution agreement with FWD that allows Sun Life Hong Kong Limited to distribute its pension products through FWD's agency force in Hong Kong. The fair value of the net identifiable assets acquired in the transaction was \$89, which included intangible assets of \$61 and a related deferred tax liability of \$10. The acquired intangible assets consist of client relationships and distribution intangible assets which are subject to amortization on a straight-line basis over their projected economic life of 30 years and 15 years, respectively. We recognized goodwill of \$16 as a result of this transaction. The completion of the second and final stage of the transaction involves the purchase of the Occupational Retirement Schemes Ordinance business of FWD, and is expected to close by the end of 2019, subject to the receipt of regulatory approvals and satisfaction of customary closing conditions. These transactions will strengthen our position in the Hong Kong pension market and will be reported in our Sun Life Financial Asia ("SLF Asia") reportable segment.

4. Segmented Information

We have five reportable segments: SLF Canada, SLF U.S., SLF Asset Management, SLF Asia, and Corporate.

These reportable segments operate in the financial services industry and reflect our management structure and internal financial reporting. Corporate includes the results of our U.K. business unit ("SLF U.K.") 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.

Effective the first quarter of 2018, a change in the organizational and reporting structure resulted in the International business unit being transferred from the SLF U.S. reportable segment to the SLF Asia reportable segment. Consequently, approximately \$10,000 of insurance contract liabilities pertaining to individual non-participating life and health policies transferred from SLF U.S. to SLF Asia, along with the associated assets. The information reported to the Chief Operating Decision Maker now includes the results of the International business unit in the SLF Asia reporting package and the segmental information presented in these Consolidated Financial Statements now includes the results of the International business unit in the SLF Asia reportable segment. In accordance with IFRS 8 *Operating Segments*, the segmental information for prior reporting periods has been restated to conform with current period presentation.

Revenues from our reportable segments are derived principally from life and health insurance, investment management and annuities, and mutual funds. 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 on 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 SLF U.S. to Corporate.

Intersegment fee income is primarily asset management fees paid by SLF Canada and Corporate to SLF Asset Management, and product distribution fees paid by SLF Asset Management to SLF Asia. 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:

	SLF Canada	SLF U.S. ⁽¹⁾	SLF Asset Management	SLF Asia ⁽¹⁾	Corporate	Consolidation adjustments	Total
2018							
Gross premiums:							
Annuities	\$ 3,261	\$ —	\$ —	\$ 1	\$ (79)	\$ —	\$ 3,183
Life insurance	4,796	1,633	—	2,154	94	—	8,677
Health insurance	5,316	3,767	—	24	14	—	9,121
Total gross premiums	13,373	5,400	—	2,179	29	—	20,981
Less: ceded premiums	1,487	597	—	232	23	—	2,339
Net investment income (loss)	1,942	305	13	76	79	(26)	2,389
Fee income	1,240	73	4,111	514	154	(126)	5,966
Total revenue	15,068	5,181	4,124	2,537	239	(152)	26,997
Less:							
Total benefits and expenses	13,497	5,183	2,930	1,919	109	(152)	23,486
Income tax expense (benefit)	308	(19)	284	51	(27)	—	597
Total net income (loss)	\$ 1,263	\$ 17	\$ 910	\$ 567	\$ 157	\$ —	\$ 2,914
Less: Net income (loss) attributable to participating policyholders	321	(35)	—	12	—	—	298
Shareholders' net income (loss)	\$ 942	\$ 52	\$ 910	\$ 555	\$ 157	\$ —	\$ 2,616
2017							
Gross premiums:							
Annuities	\$ 2,464	\$ —	\$ —	\$ —	\$ 24	\$ —	\$ 2,488
Life insurance	4,493	1,736	—	2,508	94	—	8,831
Health insurance	4,916	3,570	—	19	14	—	8,519
Total gross premiums	11,873	5,306	—	2,527	132	—	19,838
Less: ceded premiums	3,871	436	—	226	24	—	4,557
Net investment income (loss)	4,133	1,864	45	1,722	526	(79)	8,211
Fee income	1,132	103	4,037	524	118	(72)	5,842
Total revenue	13,267	6,837	4,082	4,547	752	(151)	29,334
Less:							
Total benefits and expenses	11,894	7,369	2,976	3,679	778	(151)	26,545
Income tax expense (benefit)	197	(392)	453	62	(18)	—	302
Total net income (loss)	\$ 1,176	\$ (140)	\$ 653	\$ 806	\$ (8)	\$ —	\$ 2,487
Less: Net income (loss) attributable to participating policyholders	213	4	—	28	—	—	245
Shareholders' net income (loss)	\$ 963	\$ (144)	\$ 653	\$ 778	\$ (8)	\$ —	\$ 2,242

(1) Balances in 2017 have been changed to conform with current year presentation as a result of the resegmentation described in this Note.

Assets and liabilities by segment are as follows:

	SLF Canada	SLF U.S. ⁽¹⁾	SLF Asset Management	SLF Asia ⁽¹⁾	Corporate	Consolidation adjustments	Total
As at December 31, 2018							
Total general fund assets	\$ 86,697	\$ 34,584	\$ 4,468	\$ 28,855	\$ 14,378	\$ (217)	\$ 168,765
Investments for account of segregated fund holders	\$ 85,885	\$ 491	\$ —	\$ 6,173	\$ 10,513	\$ —	\$ 103,062
Total general fund liabilities	\$ 78,946	\$ 30,671	\$ 2,396	\$ 23,692	\$ 8,707	\$ (217)	\$ 144,195
As at December 31, 2017							
Total general fund assets	\$ 84,698	\$ 32,259	\$ 4,115	\$ 27,234	\$ 14,605	\$ (191)	\$ 162,720
Investments for account of segregated fund holders	\$ 87,817	\$ 488	\$ —	\$ 6,101	\$ 11,986	\$ —	\$ 106,392
Total general fund liabilities	\$ 76,683	\$ 28,791	\$ 2,346	\$ 21,748	\$ 10,372	\$ (191)	\$ 139,749

(1) Balances in 2017 have been changed to conform with current year presentation as a result of the resegmentation described in this Note.

The revenue and assets of our reportable segments differ from geographic segments primarily due to the geographic segmenting of our SLF Asset Management and Corporate segments.

The following table shows revenue by country for SLF Asset Management and Corporate:

	SLF Asset Management		Corporate	
For the years ended December 31,	2018	2017	2018	2017
Revenue:				
United States	\$ 3,945	\$ 3,961	\$ 58	\$ 147
United Kingdom	—	—	142	577
Canada ⁽¹⁾	179	121	38	20
Other countries	—	—	1	8
Total revenue	\$ 4,124	\$ 4,082	\$ 239	\$ 752

(1) Consists of the Canadian operations of the Bentall Kennedy group of companies ("Bentall Kennedy") and Sun Life Institutional Investments (Canada) Inc. for SLF Asset Management.

The following table shows total assets by country for SLF Asset Management and Corporate:

	SLF Asset Management		Corporate	
As at December 31,	2018	2017	2018	2017
Total general fund assets:				
United States	\$ 4,147	\$ 3,750	\$ 2,550	\$ 1,984
United Kingdom	—	—	8,274	8,744
Canada ⁽¹⁾	321	365	3,384	3,723
Other countries	—	—	170	154
Total general fund assets	\$ 4,468	\$ 4,115	\$ 14,378	\$ 14,605
Investment for account of segregated fund holders:				
United Kingdom	\$ —	\$ —	\$ 10,513	\$ 11,986
Total investment for account of segregated fund holders	\$ —	\$ —	\$ 10,513	\$ 11,986

(1) Consists of the Canadian operations of Bentall Kennedy and Sun Life Institutional Investments (Canada) Inc. for SLF Asset Management.

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, 2018		December 31, 2017	
	Carrying value	Fair value	Carrying value	Fair value
Assets				
Cash, cash equivalents and short-term securities	\$ 9,506	\$ 9,506	\$ 8,890	\$ 8,890
Debt securities – fair value through profit or loss	61,402	61,402	59,967	59,967
Debt securities – available-for-sale	13,041	13,041	12,652	12,652
Equity securities – fair value through profit or loss	4,014	4,014	5,078	5,078
Equity securities – available-for-sale	620	620	942	942
Mortgages and loans	46,822	48,434	42,805	45,406
Derivative assets	1,112	1,112	1,478	1,478
Other invested assets – fair value through profit or loss ⁽¹⁾	2,701	2,701	2,211	2,211
Other invested assets – available-for-sale ⁽¹⁾	621	621	562	562
Policy loans	3,222	3,222	3,106	3,106
Total financial assets⁽²⁾	\$ 143,061	\$ 144,673	\$ 137,691	\$ 140,292

(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 \$151,726 (\$146,139 as at December 31, 2017) includes Total financial assets in this table, Investment properties of \$7,157 (\$7,067 as at December 31, 2017), and Other invested assets – non-financial assets of \$1,508 (\$1,381 as at December 31, 2017).

Derivative liabilities with a fair value of \$2,295 (\$1,756 as at December 31, 2017) are also included on the Consolidated Statements of Financial Position.

Our mortgages and loans are generally 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, 2018, \$40,730 and \$7,704 are categorized in Level 2 and Level 3, respectively, of the fair value hierarchy described in this Note (\$38,601 and \$6,805 as at December 31, 2017).

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 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, 2018				December 31, 2017			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets								
Cash, cash equivalents and short-term securities	\$ 8,926	\$ 580	\$ –	\$ 9,506	\$ 7,683	\$ 1,207	\$ –	\$ 8,890
Debt securities – fair value through profit or loss	1,253	59,776	373	61,402	1,103	58,447	417	59,967
Debt securities – available-for-sale	1,513	11,485	43	13,041	818	11,698	136	12,652
Equity securities – fair value through profit or loss	1,967	1,845	202	4,014	3,379	1,532	167	5,078
Equity securities – available-for-sale	398	186	36	620	710	194	38	942
Derivative assets	27	1,085	–	1,112	27	1,451	–	1,478
Other invested assets	898	183	2,241	3,322	912	140	1,721	2,773
Investment properties	–	–	7,157	7,157	–	–	7,067	7,067
Total invested assets measured at fair value	\$ 14,982	\$ 75,140	\$ 10,052	\$ 100,174	\$ 14,632	\$ 74,669	\$ 9,546	\$ 98,847
Investments for account of segregated fund holders	24,705	76,761	1,596	103,062	27,481	77,757	1,154	106,392
Total assets measured at fair value	\$ 39,687	\$ 151,901	\$ 11,648	\$ 203,236	\$ 42,113	\$ 152,426	\$ 10,700	\$ 205,239
Liabilities								
Investment contract liabilities	\$ –	\$ –	\$ 3	\$ 3	\$ –	\$ –	\$ 3	\$ 3
Derivative liabilities	11	2,284	–	2,295	5	1,751	–	1,756
Total liabilities measured at fair value	\$ 11	\$ 2,284	\$ 3	\$ 2,298	\$ 5	\$ 1,751	\$ 3	\$ 1,759

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

As at	December 31, 2018				December 31, 2017			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Canadian federal government	\$ –	\$ 3,815	\$ 15	\$ 3,830	\$ –	\$ 3,351	\$ 15	\$ 3,366
Canadian provincial and municipal government	–	11,852	14	11,866	–	12,142	16	12,158
U.S. government and agency	1,253	125	2	1,380	1,103	125	3	1,231
Other foreign government	–	4,895	34	4,929	–	5,318	43	5,361
Corporate	–	34,665	205	34,870	–	33,864	306	34,170
Asset-backed securities:								
Commercial mortgage-backed securities	–	1,464	3	1,467	–	1,459	1	1,460
Residential mortgage-backed securities	–	1,961	–	1,961	–	1,625	–	1,625
Collateralized debt obligations	–	143	–	143	–	55	–	55
Other	–	856	100	956	–	508	33	541
Total debt securities – fair value through profit or loss	\$ 1,253	\$ 59,776	\$ 373	\$ 61,402	\$ 1,103	\$ 58,447	\$ 417	\$ 59,967

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

As at	December 31, 2018				December 31, 2017			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Canadian federal government	\$ –	\$ 1,746	\$ –	\$ 1,746	\$ –	\$ 1,832	\$ –	\$ 1,832
Canadian provincial and municipal government	–	1,199	–	1,199	–	1,138	–	1,138
U.S. government and agency	1,513	14	–	1,527	818	–	–	818
Other foreign government	–	716	1	717	–	752	–	752
Corporate	–	4,971	42	5,013	–	5,838	56	5,894
Asset-backed securities:								
Commercial mortgage-backed securities	–	766	–	766	–	744	–	744
Residential mortgage-backed securities	–	386	–	386	–	398	–	398
Collateralized debt obligations	–	804	–	804	–	345	69	414
Other	–	883	–	883	–	651	11	662
Total debt securities – available-for-sale	\$ 1,513	\$ 11,485	\$ 43	\$ 13,041	\$ 818	\$ 11,698	\$ 136	\$ 12,652

During 2018 and 2017, 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, 2018									
Beginning balance	\$ 417	\$ 136	\$ 167	\$ 38	\$ 1,721	\$ 7,067	\$ 9,546	\$ 1,154	\$ 10,700
Included in net income ⁽¹⁾⁽³⁾⁽⁵⁾	(4)	–	9	–	69	441	515	29	544
Included in OCI ⁽³⁾	–	(5)	–	(8)	(9)	–	(22)	–	(22)
Purchases	164	140	19	4	644	621	1,592	430	2,022
Sales	(49)	(6)	–	(1)	(227)	(1,113)	(1,396)	(31)	(1,427)
Settlements	(21)	(4)	–	(1)	–	–	(26)	(1)	(27)
Transfers into Level 3 ⁽²⁾	12	1	–	1	–	–	14	4	18
Transfers (out) of Level 3 ⁽²⁾	(159)	(221)	–	–	–	–	(380)	(5)	(385)
Foreign currency translation ⁽⁴⁾	13	2	7	3	43	141	209	16	225
Ending balance	\$ 373	\$ 43	\$ 202	\$ 36	\$ 2,241	\$ 7,157	\$ 10,052	\$ 1,596	\$ 11,648
Gains (losses) included in earnings relating to instruments still held at the reporting date ⁽¹⁾	\$ 5	\$ –	\$ 9	\$ –	\$ 69	\$ 331	\$ 414	\$ 27	\$ 441
December 31, 2017									
Beginning balance	\$ 442	\$ 191	\$ 144	\$ 7	\$ 1,544	\$ 6,592	\$ 8,920	\$ 865	\$ 9,785
Included in net income ⁽¹⁾⁽³⁾⁽⁵⁾	(3)	(1)	7	–	(59)	158	102	60	162
Included in OCI ⁽³⁾	–	–	–	–	18	–	18	–	18
Purchases	180	215	34	32	505	448	1,414	302	1,716
Sales	(41)	(2)	(7)	–	(318)	(277)	(645)	(77)	(722)
Settlements	(66)	(5)	(7)	–	–	–	(78)	(1)	(79)
Transfers into Level 3 ⁽²⁾⁽⁶⁾	204	–	–	–	49	259	512	–	512
Transfers (out) of Level 3 ⁽²⁾	(284)	(262)	–	–	–	–	(546)	–	(546)
Foreign currency translation ⁽⁴⁾	(15)	–	(4)	(1)	(18)	(113)	(151)	5	(146)
Ending balance	\$ 417	\$ 136	\$ 167	\$ 38	\$ 1,721	\$ 7,067	\$ 9,546	\$ 1,154	\$ 10,700
Gains (losses) included in earnings relating to instruments still held at the reporting date ⁽¹⁾	\$ –	\$ –	\$ 8	\$ –	\$ (59)	\$ 147	\$ 96	\$ 27	\$ 123

- (1) Included in Net investment income (loss) for Total invested assets measured at fair value in our Consolidated Statements of Operations.
- (2) Transfers into Level 3 occur when the inputs used to price the assets and liabilities lack observable market data, and as a result, no longer meet the Level 1 or 2 definitions at the reporting date. 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.
- (3) 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.
- (4) 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.
- (5) Investment properties included in net income is comprised of fair value changes on investment properties of \$529 (\$211 in 2017) net of amortization of leasing commissions and tenant inducements of \$88 (\$53 in 2017).
- (6) Transfers into Level 3 in Investment properties includes the reclassification of our former head office location in 2017, previously classified as owner-occupied with a fair value of \$259 at the time of transfer from Other assets to Investment properties. The reclassification recognized a revaluation surplus of \$172, which was recorded as an increase of \$139 of accumulated other comprehensive income, net of taxes of \$33.

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 flows methodology as described in Note 5.A.ii. The key unobservable inputs used in the valuation of investment properties as at December 31, 2018 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 \$11.00 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%.
- **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 4.00% to 10.25%.
- **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 4.25% to 8.75%.

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 are 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 U.K. 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 consist of the following:

For the years ended December 31,	2018	2017
Interest income:		
Cash, cash equivalents and short-term securities	\$ 131	\$ 65
Debt securities – fair value through profit or loss	2,312	2,292
Debt securities – available-for-sale	384	352
Mortgages and loans	2,050	1,928
Derivative investments	45	70
Policy loans	175	165
Total interest income	5,097	4,872
Equity securities – dividends on fair value through profit or loss	160	159
Equity securities – dividends on available-for-sale	14	15
Investment properties rental income ⁽¹⁾	594	623
Investment properties expenses	(259)	(286)
Other income	242	223
Investment expenses and taxes	(207)	(193)
Total interest and other investment income	\$ 5,641	\$ 5,413

(1) Comprised of operating lease rental income.

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

Fair value and foreign currency changes on assets and liabilities recorded to net income consist of the following:

For the years ended December 31,	2018	2017
Fair value change:		
Cash, cash equivalents and short-term securities	\$ 8	\$ 1
Debt securities	(2,704)	1,630
Equity securities	(401)	441
Derivative investments	(1,295)	649
Other invested assets	16	59
Total change in fair value through profit or loss assets and liabilities	(4,376)	2,780
Fair value changes on investment properties	529	211
Foreign exchange gains (losses) ⁽¹⁾	446	(388)
Realized gains (losses) on property and equipment ⁽²⁾	28	—
Fair value and foreign currency changes on assets and liabilities	\$ (3,373)	\$ 2,603

(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 2018, we sold and leased back a property in Waterloo, Ontario. The transaction qualified as a sale and operating lease and as a result, we recognized a gain of \$28.

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,	2018	2017
Cash	\$ 2,089	\$ 1,504
Cash equivalents	5,209	4,592
Short-term securities	2,208	2,794
Cash, cash equivalents and short-term securities	9,506	8,890
Less: Bank overdraft, recorded in Other liabilities	104	140
Net cash, cash equivalents and short-term securities	\$ 9,402	\$ 8,750

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,	2018		2017	
	Fair value		Fair value	
	Assets	Liabilities	Assets	Liabilities
Interest rate contracts	\$ 922	\$ (440)	\$ 1,188	\$ (518)
Foreign exchange contracts	130	(1,820)	177	(1,232)
Other contracts	60	(35)	113	(6)
Total derivatives	\$ 1,112	\$ (2,295)	\$ 1,478	\$ (1,756)

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,	2018			2017		
	Total notional amount	Fair value		Total notional amount	Fair value	
		Assets	Liabilities		Assets	Liabilities
Derivative investments ⁽¹⁾	\$ 58,268	\$ 1,101	\$ (2,134)	\$ 53,299	\$ 1,439	\$ (1,575)
Fair value hedges	779	—	(153)	690	2	(181)
Cash flow hedges	151	11	(8)	132	37	—
Total derivatives	\$ 59,198	\$ 1,112	\$ (2,295)	\$ 54,121	\$ 1,478	\$ (1,756)

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

We did not have any net investment hedges in 2018 or 2017.

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

For the years ended December 31,	2018	2017
Fair value hedging ineffectiveness:		
Gains (losses) on the hedged items attributable to the hedged risk	\$ (41)	\$ (22)
Gains (losses) on the hedging derivatives	40	19
Net ineffectiveness on fair value hedges	\$ (1)	\$ (3)

For cash flow hedges, we had hedge ineffectiveness of \$1 in 2018 (\$3 in 2017). We expect to reclassify a loss of \$2 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 2019, 2020 and 2021. 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, 2018 are \$1,328 and \$1,318, respectively (\$1,283 and \$1,267 as at December 31, 2017). The carrying value and fair value of the associated liabilities as at December 31, 2018 are \$1,453 and \$1,446, respectively (\$1,355 and \$1,346 as at December 31, 2017). The carrying value of asset-backed securities in the PRA as at December 31, 2018 and 2017 are \$124 and \$75, respectively. There are no cash and cash equivalents in the PRA as at December 31, 2018 and 2017.

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, 2018 and 2017.

5.F.ii Repurchase Agreements

We enter into repurchase agreements for operational funding and liquidity purposes. Repurchase agreements have maturities ranging from 7 to 365 days, averaging 127 days, and bear interest at an average rate of 1.92% as at December 31, 2018 (1.25% as at December 31, 2017). The carrying values of the transferred assets and the obligations related to their repurchase, which approximate their fair values, are \$1,824 as at December 31, 2018 (\$1,976 as at December 31, 2017). 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 \$2,217 and \$2,338 as at December 31, 2018 (\$1,467 and \$1,546 as at December 31, 2017).

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.

Some of our financial instruments risk management policies and procedures are described in our Annual Management's Discussion and Analysis ("MD&A") for the year ended December 31, 2018. The shaded text and tables in the Risk Management section of the

MD&A represent part of our disclosures on credit, market and liquidity risks and include a description of how we measure our risk and our objectives, policies and methodologies for managing these risks. Therefore, the shaded text and tables are an integral part of these Consolidated Financial Statements.

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 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 & Conduct Review 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 Dynamic Capital Adequacy Testing ("DCAT"), 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,	2018	2017
Off-balance sheet items:		
Loan commitments ⁽¹⁾	\$ 2,460	\$ 1,740
Guarantees	—	12
Total off-balance sheet items	\$ 2,460	\$ 1,752

(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, assets are lent with a commitment from the counterparty to return at a future date. Cash or securities are received as collateral from 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,	2018				2017			
	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)	\$ 1,112	\$ (768)	\$ (298)	\$ 46	\$ 1,478	\$ (694)	\$ (662)	\$ 122
Reverse repurchase agreements (Note 8)	17	(17)	—	—	—	—	—	—
Total financial assets	\$ 1,129	\$ (785)	\$ (298)	\$ 46	\$ 1,478	\$ (694)	\$ (662)	\$ 122
Financial liabilities								
Derivative liabilities	\$ (2,295)	\$ 768	\$ 1,132	\$ (395)	\$ (1,756)	\$ 694	\$ 754	\$ (308)
Repurchase agreements (Note 5.F.ii)	(1,824)	17	1,807	—	(1,976)	—	1,976	—
Total financial liabilities	\$ (4,119)	\$ 785	\$ 2,939	\$ (395)	\$ (3,732)	\$ 694	\$ 2,730	\$ (308)

(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 excludes overcollateralization and for exchange-traded derivatives, initial margin. Total financial collateral, including initial margin and overcollateralization, received on derivative assets was \$470 (\$853 as at December 31, 2017), received on reverse repurchase agreements was \$17 (\$nil as at December 31, 2017), pledged on derivative liabilities was \$1,726 (\$1,127 as at December 31, 2017), and pledged on repurchase agreements was \$1,824 (\$1,976 as at December 31, 2017).

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 U.K. and issuers for which the Risk & Conduct Review 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,	2018			2017		
	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	\$ 25,091	\$ 4,217	\$ 29,308	\$ 24,132	\$ 4,114	\$ 28,246
United States	21,329	5,917	27,246	20,758	5,719	26,477
United Kingdom	5,092	565	5,657	5,319	590	5,909
Other	9,890	2,342	12,232	9,758	2,229	11,987
Balance	\$ 61,402	\$ 13,041	\$ 74,443	\$ 59,967	\$ 12,652	\$ 72,619

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

As at December 31,	2018			2017		
	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	\$ 3,830	\$ 1,746	\$ 5,576	\$ 3,366	\$ 1,832	\$ 5,198
Canadian provincial and municipal government	11,866	1,199	13,065	12,158	1,138	13,296
U.S. government and agency	1,380	1,527	2,907	1,231	818	2,049
Other foreign government	4,929	717	5,646	5,361	752	6,113
Total government issued or guaranteed debt securities	22,005	5,189	27,194	22,116	4,540	26,656
Corporate debt securities by industry sector ⁽¹⁾ :						
Financials	8,390	1,470	9,860	7,856	1,705	9,561
Utilities	6,353	528	6,881	6,756	550	7,306
Industrials	4,053	590	4,643	4,090	707	4,797
Energy	3,628	340	3,968	3,657	455	4,112
Communication services ⁽²⁾	2,826	481	3,307	2,826	545	3,371
Real estate	2,640	376	3,016	2,213	366	2,579
Health care	1,734	299	2,033	1,256	323	1,579
Consumer staples	1,625	257	1,882	1,920	351	2,271
Consumer discretionary ⁽²⁾	1,372	209	1,581	1,329	363	1,692
Materials	1,225	256	1,481	1,211	262	1,473
Information technology ⁽²⁾	1,024	207	1,231	1,056	267	1,323
Total corporate debt securities	34,870	5,013	39,883	34,170	5,894	40,064
Asset-backed securities	4,527	2,839	7,366	3,681	2,218	5,899
Total debt securities	\$ 61,402	\$ 13,041	\$ 74,443	\$ 59,967	\$ 12,652	\$ 72,619

(1) Balances in 2017 have been changed to conform with current year presentation.

(2) Our grouping of debt securities by sector is based on the Global Industry Classification Standard and S&P Dow Jones Indices. During 2018, certain Consumer discretionary and Information technology debt securities were moved to the Communication services sector.

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, 2018	Canada	United States	United Kingdom	Other	Total
Mortgages					
Retail	\$ 1,921	\$ 2,281	\$ —	\$ —	\$ 4,202
Office	1,811	2,417	—	—	4,228
Multi-family residential	3,455	1,920	—	—	5,375
Industrial and land	752	1,154	—	—	1,906
Other	618	104	—	—	722
Total mortgages ⁽¹⁾	\$ 8,557	\$ 7,876	\$ —	\$ —	\$ 16,433
Loans	\$ 13,238	\$ 11,458	\$ 2,547	\$ 3,146	\$ 30,389
Total mortgages and loans	\$ 21,795	\$ 19,334	\$ 2,547	\$ 3,146	\$ 46,822

(1) \$3,537 of mortgages in Canada are insured by the CMHC.

As at December 31, 2017	Canada	United States	United Kingdom	Other	Total
Mortgages					
Retail	\$ 2,027	\$ 2,264	\$ —	\$ —	\$ 4,291
Office	1,898	2,363	—	—	4,261
Multi-family residential	3,214	1,368	—	—	4,582
Industrial and land	670	990	—	—	1,660
Other	581	118	—	—	699
Total mortgages ⁽¹⁾	\$ 8,390	\$ 7,103	\$ —	\$ —	\$ 15,493
Loans	\$ 13,265	\$ 9,542	\$ 1,678	\$ 2,827	\$ 27,312
Total mortgages and loans	\$ 21,655	\$ 16,645	\$ 1,678	\$ 2,827	\$ 42,805

(1) \$3,171 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,	2018			2017		
	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	\$ 2,189	\$ 1,175	\$ 3,364	\$ 1,432	\$ 1,053	\$ 2,485
Due in years 2-5	9,307	4,865	14,172	7,903	3,465	11,368
Due in years 6-10	10,080	2,580	12,660	10,148	3,177	13,325
Due after 10 years	39,826	4,421	44,247	40,484	4,957	45,441
Total debt securities	\$ 61,402	\$ 13,041	\$ 74,443	\$ 59,967	\$ 12,652	\$ 72,619

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

As at December 31,	2018	2017
Due in 1 year or less	\$ 968	\$ 931
Due in years 2-5	5,118	4,829
Due in years 6-10	7,351	6,963
Due after 10 years	3,021	2,792
Total mortgages	\$ 16,458	\$ 15,515

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

As at December 31,	2018	2017
Due in 1 year or less	\$ 1,425	\$ 1,806
Due in years 2-5	6,968	6,350
Due in years 6-10	5,183	4,968
Due after 10 years	16,863	14,216
Total loans	\$ 30,439	\$ 27,340

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,	2018				2017			
	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	\$ —	\$ —	\$ —	\$ —	\$ 469	\$ —	\$ —	\$ 469
Swap contracts	1,101	3,506	16,685	21,292	1,348	3,486	16,053	20,887
Options purchased	1,198	2,898	3,737	7,833	1,062	2,266	2,451	5,779
Options written ⁽¹⁾	477	648	225	1,350	—	786	459	1,245
Foreign exchange contracts:								
Forward contracts	6,529	15	—	6,544	6,305	42	—	6,347
Swap contracts	532	4,451	9,210	14,193	332	4,198	7,214	11,744
Other contracts:								
Forward contracts	127	158	—	285	109	150	—	259
Swap contracts	112	1	—	113	126	1	—	127
Credit derivatives	—	1,329	27	1,356	48	903	170	1,121
Exchange-traded contracts:								
Interest rate contracts:								
Futures contracts	3,669	—	—	3,669	3,415	—	—	3,415
Equity contracts:								
Futures contracts	2,377	—	—	2,377	2,216	—	—	2,216
Options purchased	186	—	—	186	465	47	—	512
Total notional amount	\$ 16,308	\$ 13,006	\$ 29,884	\$ 59,198	\$ 15,895	\$ 11,879	\$ 26,347	\$ 54,121

(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,	2018				2017			
	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	\$ 100	\$ 150	\$ 862	\$ 1,112	\$ 97	\$ 226	\$ 1,155	\$ 1,478
Derivative liabilities	\$ (240)	\$ (555)	\$ (1,500)	\$ (2,295)	\$ (90)	\$ (347)	\$ (1,319)	\$ (1,756)

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, 2018 (98% as at December 31, 2017). 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,	2018			2017		
	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	\$ 9,728	\$ 5,919	\$ 15,647	\$ 8,579	\$ 4,870	\$ 13,449
AA	14,208	2,044	16,252	14,006	1,809	15,815
A	19,089	2,447	21,536	19,603	3,000	22,603
BBB	17,646	2,483	20,129	16,894	2,674	19,568
BB and lower	731	148	879	885	299	1,184
Total debt securities	\$ 61,402	\$ 13,041	\$ 74,443	\$ 59,967	\$ 12,652	\$ 72,619

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,	2018		2017	
Mortgages by credit rating:				
Insured	\$ 3,537	\$ 3,171		
AAA	3	4		
AA	2,209	1,716		
A	4,841	4,304		
BBB	4,925	5,060		
BB and lower	912	1,227		
Impaired	6	11		
Total mortgages	\$ 16,433	\$ 15,493		
As at December 31,	2018		2017	
Loans by credit rating:				
AAA	\$ 341	\$ 400		
AA	4,659	3,670		
A	11,483	11,626		
BBB	12,766	10,745		
BB and lower	1,097	810		
Impaired	43	61		
Total loans	\$ 30,389	\$ 27,312		

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,	2018			2017		
	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	\$ 289	\$ (252)	\$ 37	\$ 113	\$ (95)	\$ 18
A	750	(507)	243	872	(589)	283
BBB	46	(9)	37	466	(10)	456
Total over-the-counter derivatives ⁽¹⁾	\$ 1,085	\$ (768)	\$ 317	\$ 1,451	\$ (694)	\$ 757

(1) Exchange-traded derivatives with a positive fair value of \$27 in 2018 (\$27 in 2017) 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,	2018		2017	
	Notional amount	Fair value	Notional amount	Fair value
Single name CDS contracts				
AA	\$ 48	\$ 1	\$ 67	\$ 1
A	611	9	584	15
BBB	674	13	446	9
Total single name CDS contracts	\$ 1,333	\$ 23	\$ 1,097	\$ 25
CDS index contracts	\$ 23	\$ —	\$ 24	\$ —
Total credit default swap contracts	\$ 1,356	\$ 23	\$ 1,121	\$ 25

Reinsurance Assets by Credit Rating

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

As at December 31,	2018			2017		
	Gross exposure	Collateral	Net exposure	Gross exposure	Collateral	Net exposure
Reinsurance assets by credit rating:						
AA	\$ 1,442	\$ 6	\$ 1,436	\$ 1,241	\$ 4	\$ 1,237
A	1,760	83	1,677	1,632	99	1,533
BBB	203	132	71	157	116	41
BB	1,677	1,617	60	1,539	1,455	84
B	—	—	—	257	74	183
CCC	252	72	180	—	—	—
Not rated	79	75	4	76	72	4
Total	\$ 5,413	\$ 1,985	\$ 3,428	\$ 4,902	\$ 1,820	\$ 3,082
Less: negative reinsurance assets	1,272			874		
Total Reinsurance assets	\$ 4,141			\$ 4,028		

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

We generally maintain distinct asset portfolios for each line of business. Changes in the fair values of these assets are largely offset by changes in the value of insurance contract liabilities, when there is an effective matching of assets and liabilities. For assets designated as FVTPL, the change in fair value arising from impairment is not separately disclosed. The reduction in fair values of FVTPL debt securities attributable to impairment results in an increase in insurance contract liabilities charged through the Consolidated Statements of Operations.

Impairment of Available-For-Sale Assets

We recognized impairment losses on available-for-sale assets of \$12 for the year ended December 31, 2018 (\$7 during 2017).

We did not reverse any impairment on AFS debt securities during 2018 and 2017.

Past Due and Impaired Mortgages and Loans

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

As at December 31, 2018	Gross carrying value			Allowance for losses		
	Mortgages	Loans	Total	Mortgages	Loans	Total
Not past due	\$ 16,427	\$ 30,332	\$ 46,759	\$ –	\$ –	\$ –
Past due:						
Past due less than 90 days	–	14	14	–	–	–
Past due 90 days or more	–	–	–	–	–	–
Impaired	31	93	124	25	50	75
Total	\$ 16,458	\$ 30,439	\$ 46,897	\$ 25	\$ 50	\$ 75

As at December 31, 2017	Gross carrying value			Allowance for losses		
	Mortgages	Loans	Total	Mortgages	Loans	Total
Not past due	\$ 15,482	\$ 27,180	\$ 42,662	\$ –	\$ –	\$ –
Past due:						
Past due less than 90 days	–	71	71	–	–	–
Past due 90 days or more	–	–	–	–	–	–
Impaired	33	89	122	22	28	50
Total	\$ 15,515	\$ 27,340	\$ 42,855	\$ 22	\$ 28	\$ 50

Changes in Allowances for Losses

The changes in the allowances for losses are as follows:

	Mortgages	Loans	Total
Balance, January 1, 2017	\$ 23	\$ 7	\$ 30
Provision for (reversal of) losses	—	22	22
Write-offs, net of recoveries, and other adjustments	—	—	—
Foreign exchange rate movements	(1)	(1)	(2)
Balance, December 31, 2017	\$ 22	\$ 28	\$ 50
Provision for (reversal of) losses	3	19	22
Write-offs, net of recoveries, and other adjustments	(2)	—	(2)
Foreign exchange rate movements	2	3	5
Balance, December 31, 2018	\$ 25	\$ 50	\$ 75

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 and foreign currency 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 & Conduct Review 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 DCAT, 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 contracts. These benefit guarantees may be triggered upon death, maturity, withdrawal or annuitization. The cost of providing for these guarantees is uncertain, and will depend upon a number of factors including general capital market conditions, underlying fund performance, policyholder behaviour, and mortality experience, which may result in negative impacts on our 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,	2018			2017		
	Fair value through profit or loss	Available- for- sale	Total equities	Fair value through profit or loss	Available- for-sale	Total equities
Canada	\$ 2,651	\$ 15	\$ 2,666	\$ 3,282	\$ 53	\$ 3,335
United States	508	388	896	765	671	1,436
United Kingdom	121	5	126	130	5	135
Other	734	212	946	901	213	1,114
Total equities	\$ 4,014	\$ 620	\$ 4,634	\$ 5,078	\$ 942	\$ 6,020

6.B.ii 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 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.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 & Conduct Review 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 threshold.
- 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.

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 & Conduct Review Committee.
- Risk appetite limits have been established for policyholder behaviour, mortality and morbidity, and longevity risks.
- Income and regulatory capital sensitivities are monitored, managed and reported against pre-established risk limits.
- 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 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.
- The Insurance Risk Policy and Investment and Credit Risk Management 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 & Conduct Review 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 DCAT, 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.

We use reinsurance to limit losses, minimize exposure to significant risks and to provide additional capacity for growth. 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 our retention limit is \$25 in Canada and is US\$25 outside of Canada. For survivorship life insurance, our maximum global retention limit is \$30 in Canada and is US\$30 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, net income and equity would be decreased by about \$250 (\$240 in 2017) if the termination rate assumption were reduced by 10%. For products where more terminations would be financially adverse to us, net income and equity would be decreased by about \$195 (\$175 in 2017) if the termination rate assumption were increased by 10%. These sensitivities reflect the impact of any applicable ceded reinsurance arrangements.

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 monitored to 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, 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.

The risk of adverse morbidity experience also increases during economic slowdowns, especially with respect to disability coverages, as well as with 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. External factors including medical advances could adversely affect our life insurance, health insurance, critical illness, disability, long-term care insurance and annuity businesses.

For life insurance products for which higher mortality would be financially adverse to the Company, a 2% increase in the best estimate assumption would decrease net income and equity by about \$35 (\$55 in 2017). This sensitivity reflects the impact of any applicable ceded reinsurance arrangements.

For products where morbidity is a significant assumption, a 5% adverse change in the assumptions would reduce net income and equity by about \$185 (\$175 in 2017). This sensitivity reflects the impact of any applicable ceded reinsurance arrangements.

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 & Conduct Review 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 (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 net income and equity by about \$120 (\$120 in 2017). These sensitivities reflect the impact of any applicable ceded reinsurance arrangements.

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 & Conduct Review 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, and 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 net income and equity of about \$175 (\$160 in 2017). These sensitivities reflect the impact of any applicable ceded reinsurance arrangements.

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 an increased possibility of rate increases or renegotiation of legacy reinsurance contracts by our reinsurers, as the global reinsurance industry continues 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 and Credit Risk Management Policy approved by the Risk & Conduct Review Committee, which set acceptance criteria and processes to monitor the level of reinsurance ceded to any single reinsurer or group of reinsurers. 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 & Conduct Review Committee.

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

8. Other Assets

Other assets consist of the following:

As at December 31,	2018	2017
Accounts receivable	\$ 1,451	\$ 1,579
Investment income due and accrued	1,131	1,078
Property and equipment	621	624
Deferred acquisition costs ⁽¹⁾	130	160
Prepaid expenses	309	282
Premium receivable	567	522
Accrued post-retirement benefit assets (Note 25)	184	82
Other	105	81
Total other assets	\$ 4,498	\$ 4,408

(1) Amortization of deferred acquisition cost charged to income during the year amounted to \$33 in 2018 (\$53 in 2017).

9. Goodwill and Intangible Assets

9.A Goodwill

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

	SLF Canada	SLF U.S.	SLF Asia	SLF Asset Management	Corporate	Total
Balance, January 1, 2017	\$ 2,573	\$ 1,112	\$ 686	\$ 767	\$ 179	\$ 5,317
Acquisitions (Note 3)	—	—	16	—	—	16
Foreign exchange rate movements	—	(69)	(47)	(38)	4	(150)
Balance, December 31, 2017	\$ 2,573	\$ 1,043	\$ 655	\$ 729	\$ 183	\$ 5,183
Acquisitions	34	7	—	—	—	41
Foreign exchange rate movements	—	88	50	46	4	188
Balance, December 31, 2018	\$ 2,607	\$ 1,138	\$ 705	\$ 775	\$ 187	\$ 5,412

Goodwill was not impaired in 2018 or 2017. The carrying amounts of goodwill allocated to our CGUs or groups of CGUs are as follows:

As at December 31,	2018	2017
SLF Canada		
Individual	\$ 1,100	\$ 1,066
Group retirement services	453	453
Group benefits	1,054	1,054
SLF U.S. Employee benefits group	1,138	1,043
SLF Asia	705	655
SLF Asset Management		
MFS	515	481
Sun Life Investment Management ("SLIM")	260	248
Corporate		
U.K.	187	183
Total	\$ 5,412	\$ 5,183

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.

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 9.0% to 12.5% (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. The price-to-earnings multiples used range from 10.5 to 11.5. The price-to-assets-under-management ratios used range from 0.6% to 2.0%.

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		Indefinite life	Total
	Internally generated software	Other		
Gross carrying amount				
Balance, January 1, 2017	\$ 518	\$ 1,172	\$ 661	\$ 2,351
Additions	81	5	—	86
Acquisitions (Note 3)	—	61	—	61
Disposals	(3)	—	—	(3)
Foreign exchange rate movements	(17)	(36)	(36)	(89)
Balance, December 31, 2017	\$ 579	\$ 1,202	\$ 625	\$ 2,406
Additions	118	(1)	—	117
Acquisitions	—	19	3	22
Foreign exchange rate movements	25	46	45	116
Balance, December 31, 2018	\$ 722	\$ 1,266	\$ 673	\$ 2,661
Accumulated amortization and impairment losses				
Balance, January 1, 2017	\$ (291)	\$ (353)	\$ (4)	\$ (648)
Amortization charge for the year	(59)	(53)	—	(112)
Disposals	3	—	—	3
Foreign exchange rate movements	9	9	—	18
Balance, December 31, 2017	\$ (338)	\$ (397)	\$ (4)	\$ (739)
Amortization charge for the year	(66)	(53)	—	(119)
Foreign exchange rate movements	(13)	(11)	—	(24)
Balance, December 31, 2018	\$ (417)	\$ (461)	\$ (4)	\$ (882)
Net carrying amount, end of period:				
As at December 31, 2017	\$ 241	\$ 805	\$ 621	\$ 1,667
As at December 31, 2018	\$ 305	\$ 805	\$ 669	\$ 1,779

The components of the intangible assets are as follows:

As at December 31,	2018	2017
Finite life intangible assets:		
Distribution, sales potential of field force	\$ 366	\$ 376
Client relationships and asset administration contracts	439	429
Internally generated software	305	241
Total finite life intangible assets	1,110	1,046
Indefinite life intangible assets:		
Fund management contracts ⁽¹⁾	669	621
Total indefinite life intangible assets	669	621
Total intangible assets	\$ 1,779	\$ 1,667

(1) Fund management contracts are attributable to SLF Asset Management, where its competitive position in, and the stability of, its markets support their classification as indefinite life intangible assets.

10. Insurance Contract Liabilities and Investment Contract Liabilities

10.A Insurance Contract Liabilities

10.A.i Description of Business

The majority of the products sold by the Company are insurance contracts. These contracts 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, 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 high end of the range for expenses and in the mid-range or higher for other assumptions. 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.

Lapse and Other 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

Insurance contract liabilities consist of the following:

As at December 31, 2018	SLF Canada	SLF U.S.	SLF Asia	Corporate ⁽¹⁾	Total
Individual participating life	\$ 21,095	\$ 5,785	\$ 6,651	\$ 1,076	\$ 34,607
Individual non-participating life and health	11,435	13,239	12,463	391	37,528
Group life and health	9,591	5,674	32	—	15,297
Individual annuities	9,267	25	(44)	5,608	14,856
Group annuities	12,461	6	147	—	12,614
Insurance contract liabilities before other policy liabilities	63,849	24,729	19,249	7,075	114,902
Add: Other policy liabilities ⁽²⁾	3,049	1,457	2,276	239	7,021
Total insurance contract liabilities	\$ 66,898	\$ 26,186	\$ 21,525	\$ 7,314	\$ 121,923

(1) Primarily business from the U.K. and run-off reinsurance operations. Includes U.K. business of \$980 for Individual participating life and health, \$5,214 for Individual annuities, and \$170 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, 2017	SLF Canada	SLF U.S. ⁽¹⁾	SLF Asia ⁽¹⁾	Corporate ⁽²⁾	Total
Individual participating life	\$ 20,918	\$ 5,582	\$ 6,705	\$ 1,186	\$ 34,391
Individual non-participating life and health	11,161	12,024	11,449	394	35,028
Group life and health	9,131	5,427	33	11	14,602
Individual annuities	9,178	25	(68)	6,215	15,350
Group annuities	11,607	7	106	—	11,720
Insurance contract liabilities before other policy liabilities	61,995	23,065	18,225	7,806	111,091
Add: Other policy liabilities ⁽³⁾	3,088	1,345	2,032	229	6,694
Total insurance contract liabilities	\$ 65,083	\$ 24,410	\$ 20,257	\$ 8,035	\$ 117,785

(1) Balances in 2017 have been changed to conform with current year presentation as a result of the resegmentation described in Note 4.

(2) Primarily business from the U.K. and run-off reinsurance operations. Includes U.K. business of \$1,089 for Individual participating life and health, \$5,692 for Individual annuities, and \$158 for Other policy liabilities.

(3) 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

Changes in Insurance contract liabilities and Reinsurance assets are as follows:

For the years ended December 31,	2018			2017		
	Insurance contract liabilities	Reinsurance assets	Net	Insurance contract liabilities	Reinsurance assets	Net
Balances, before Other policy liabilities and assets as at January 1,	\$ 111,091	\$ 3,503	\$ 107,588	\$ 108,411	\$ 4,541	\$ 103,870
Change in balances on in-force policies	(3,094)	(129)	(2,965)	2,757	(779)	3,536
Balances arising from new policies	3,780	128	3,652	2,941	156	2,785
Method and assumption changes	(374)	(96)	(278)	(371)	(198)	(173)
Increase (decrease) in Insurance contract liabilities and Reinsurance assets	312	(97)	409	5,327	(821)	6,148
Foreign exchange rate movements	3,499	247	3,252	(2,647)	(217)	(2,430)
Balances before Other policy liabilities and assets	114,902	3,653	111,249	111,091	3,503	107,588
Other policy liabilities and assets	7,021	488	6,533	6,694	525	6,169
Total Insurance contract liabilities and Reinsurance assets, December 31	\$ 121,923	\$ 4,141	\$ 117,782	\$ 117,785	\$ 4,028	\$ 113,757

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, 2018	Net increase (decrease) before income taxes	Description
Mortality / Morbidity	\$ (337)	Updates to reflect mortality/morbidity experience in all jurisdictions. The largest items were favourable mortality in SLF Asia International, SLF Canada Group Retirement Services and SLF U.K.
Lapse and other policyholder behaviour	563	Updates to lapse and other policyholder behaviour in all jurisdictions. The largest items, which all had unfavourable impacts, were updated lapse assumptions in SLF U.S. and SLF Asia International.
Expenses	6	Updates to reflect expense experience in all jurisdictions including updates to SLF Canada participating life accounts.
Investment returns	(331)	Updates to various investment-related assumptions across the Company including updates to SLF Canada participating life accounts.
Model enhancements and other	(179)	Various enhancements and methodology changes across all jurisdictions. The largest items were a favourable change to the participating provisions for adverse deviation in SLF Canada and SLF U.S., partially offset by a change in reinsurance provisions in SLF U.S.
Total impact of method and assumption changes	\$ (278)	

For the year ended December 31, 2017	Net increase (decrease) before income taxes	Description
Mortality / Morbidity	\$ (286)	Updates to reflect mortality/morbidity experience in all jurisdictions. The largest items were favourable mortality in SLF U.S. In-force Management and SLF Asia International insurance and favourable mortality improvement in SLF U.K.
Lapse and other policyholder behaviour	149	Updates to reflect lapse and other policyholder behaviour experience in all jurisdictions. The largest items were lower lapse rates on lapse supported business in SLF U.S. and updated lapse assumptions in SLF Canada's individual insurance business.
Expenses	71	Updates to reflect expense experience in all jurisdictions. The largest items were a refinement to the allocation of expenses in SLF Canada and increased expenses in the closed block of business in SLF Asia International wealth.
Investment returns	(62)	Updates to various investment related assumptions across the Company. This included a reduction of the provision for investment risk in SLF Canada and other updated investment related assumptions, offset partially by updates to promulgated ultimate reinvestment rates.
Model enhancements and other	(45)	Various enhancements and methodology changes across all jurisdictions. Includes the favourable impact on insurance contract liabilities from the resolution of tax uncertainties in a U.S. subsidiary and updates to the SLF Canada participating individual life business, partially offset by changes due to U.S. tax reform and updates to reflect reinsurance market conditions.
Total impact of method and assumption changes	\$ (173)	

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 U.K. and Hong Kong
- Non-unit-linked pensions contracts issued in the U.K. and Hong Kong

10.B.ii Method and Assumption Changes

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

Investment contract liabilities consist of the following:

As at December 31, 2018	SLF Canada	SLF Asia	Corporate	Total
Individual participating life	\$ –	\$ –	\$ 6	\$ 6
Individual non-participating life and health	–	254	3	257
Individual annuities	2,646	–	43	2,689
Group annuities	–	212	–	212
Total investment contract liabilities	\$ 2,646	\$ 466	\$ 52	\$ 3,164

Included in the Investment contract liabilities of \$3,164 are liabilities of \$515 for investment contracts with DPF, \$2,646 for investment contracts without DPF measured at amortized cost, and \$3 for investment contracts without DPF measured at fair value.

As at December 31, 2017	SLF Canada	SLF Asia	Corporate	Total
Individual participating life	\$ –	\$ –	\$ 8	\$ 8
Individual non-participating life and health	–	260	3	263
Individual annuities	2,517	–	48	2,565
Group annuities	–	246	–	246
Total investment contract liabilities	\$ 2,517	\$ 506	\$ 59	\$ 3,082

Included in the Investment contract liabilities of \$3,082 are liabilities of \$562 for investment contracts with DPF, \$2,517 for investment contracts without DPF measured at amortized cost, and \$3 for investment contracts without DPF measured at fair value.

10.B.iv Changes in Investment Contract Liabilities

Changes in investment contract liabilities without DPF are as follows:

For the years ended December 31,	2018		2017	
	Measured at fair value	Measured at amortized cost	Measured at fair value	Measured at amortized cost
Balance as at January 1	\$ 3	\$ 2,517	\$ 3	\$ 2,305
Deposits	–	483	–	470
Interest	–	53	–	47
Withdrawals	–	(420)	–	(322)
Fees	–	(8)	–	(5)
Other	–	21	–	19
Change in assumptions	–	–	–	3
Balance as at December 31	\$ 3	\$ 2,646	\$ 3	\$ 2,517

Changes in investment contract liabilities with DPF are as follows:

For the years ended December 31,	2018	2017
Balance as at January 1	\$ 562	\$ 605
Change in liabilities on in-force	(84)	(10)
Liabilities arising from new policies	–	1
Increase (decrease) in liabilities	(84)	(9)
Foreign exchange rate movements	37	(34)
Balance as at December 31	\$ 515	\$ 562

10.C Gross Claims and Benefits Paid

Gross claims and benefits paid consist of the following:

For the years ended December 31,	2018	2017
Maturities and surrenders	\$ 2,609	\$ 2,389
Annuity payments	1,876	1,849
Death and disability benefits	3,948	3,836
Health benefits	6,421	6,079
Policyholder dividends and interest on claims and deposits	1,132	1,200
Total gross claims and benefits paid	\$ 15,986	\$ 15,353

10.D Total Assets Supporting Liabilities and Equity

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

As at December 31, 2018	Debt securities	Equity securities	Mortgages and loans	Investment properties	Other	Total
Individual participating life	\$ 19,624	\$ 2,557	\$ 7,978	\$ 4,736	\$ 4,397	\$ 39,292
Individual non-participating life and health	18,720	1,303	14,398	1,638	9,058	45,117
Group life and health	6,271	70	9,217	—	2,882	18,440
Individual annuities	11,918	49	5,769	—	959	18,695
Group annuities	6,448	35	6,298	—	822	13,603
Equity and other	11,462	620	3,162	783	17,591	33,618
Total assets	\$ 74,443	\$ 4,634	\$ 46,822	\$ 7,157	\$ 35,709	\$ 168,765

As at December 31, 2017	Debt securities	Equity securities	Mortgages and loans	Investment properties	Other	Total
Individual participating life	\$ 18,855	\$ 3,190	\$ 7,458	\$ 4,645	\$ 4,508	\$ 38,656
Individual non-participating life and health	18,560	1,720	12,360	1,348	8,702	42,690
Group life and health	6,003	73	8,799	—	2,667	17,542
Individual annuities	12,001	50	5,506	—	1,303	18,860
Group annuities	6,076	45	5,840	—	538	12,499
Equity and other	11,124	942	2,842	1,074	16,491	32,473
Total assets	\$ 72,619	\$ 6,020	\$ 42,805	\$ 7,067	\$ 34,209	\$ 162,720

10.E 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 2018 analysis tested our capital adequacy until December 31, 2022, under various adverse economic and business conditions. The Appointed Actuary reviews the calculation of our Life Insurance Capital Adequacy Test ("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, 2018	SLF Canada	SLF U.S.	SLF Asia	Corporate ⁽¹⁾	Total
Individual participating life	\$ 20	\$ 10	\$ 180	\$ —	\$ 210
Individual non-participating life and health	(205)	1,076	36	21	928
Group life and health	358	1,848	2	—	2,208
Individual annuities	—	—	—	186	186
Group annuities	121	—	—	—	121
Reinsurance assets before other policy assets	294	2,934	218	207	3,653
Add: Other policy assets ⁽²⁾	80	307	42	59	488
Total Reinsurance assets	\$ 374	\$ 3,241	\$ 260	\$ 266	\$ 4,141

(1) Primarily business from the U.K. and run-off reinsurance operations. Includes U.K. business of \$21 for Individual non-participating life and health, and \$47 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, 2017	SLF Canada	SLF U.S. ⁽¹⁾	SLF Asia ⁽¹⁾	Corporate ⁽²⁾	Total
Individual participating life	\$ 4	\$ (33)	\$ 207	\$ —	\$ 178
Individual non-participating life and health	129	809	73	22	1,033
Group life and health	342	1,626	2	—	1,970
Individual annuities	—	—	—	195	195
Group annuities	127	—	—	—	127
Reinsurance assets before other policy assets	602	2,402	282	217	3,503
Add: Other policy assets ⁽³⁾	85	353	32	55	525
Total Reinsurance assets	\$ 687	\$ 2,755	\$ 314	\$ 272	\$ 4,028

(1) Balances in 2017 have been changed to conform with current year presentation as a result of the resegmentation described in Note 4.

(2) Primarily business from the U.K. and run-off reinsurance operations. Includes U.K. business of \$22 for Individual non-participating life and health, and \$58 for Individual annuities.

(3) 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 2018 or 2017. Changes in Reinsurance assets are included in Note 10.A.iv.

11.B Reinsurance (Expenses) Recoveries

Reinsurance (expenses) recoveries are comprised of the following:

For the years ended December 31,	2018	2017
Recovered claims and benefits	\$ 1,839	\$ 3,704
Commissions	74	85
Reserve adjustments	25	224
Operating expenses and other	83	360
Reinsurance (expenses) recoveries	\$ 2,021	\$ 4,373

11.C Reinsurance Gains or Losses

We did not enter into reinsurance arrangements that resulted in profits on inception in 2018 or 2017.

12. Other Liabilities

12.A Composition of Other Liabilities

Other liabilities consist of the following:

As at December 31,	2018	2017
Accounts payable	\$ 2,045	\$ 1,972
Bank overdrafts and cash pooling	104	140
Repurchase agreements (Note 5)	1,824	1,976
Accrued expenses and taxes	3,137	2,927
Borrowed funds ⁽¹⁾	188	227
Senior financing ⁽²⁾	2,066	1,905
Accrued post-retirement benefit liability (Note 25)	651	710
Secured borrowings from mortgage securitization (Note 5)	1,453	1,355
Other	685	775
Total other liabilities	\$ 12,153	\$ 11,987

(1) The change in Borrowed funds relates to net cash flow changes of \$(40) in 2018 (\$(45) in 2017) and foreign exchange rate movements of \$1 in 2018 (\$(2) in 2017).

(2) The change in Senior financing relates to net cash flow changes of \$nil in 2018 (\$nil in 2017) and foreign exchange rate movements of \$161 in 2018 (\$(129) in 2017).

12.B Borrowed Funds

Borrowed funds include the following:

As at December 31,	Currency of borrowing	Maturity	2018	2017
Encumbrances on real estate	Cdn. dollars	Current – 2033	\$ 177	\$ 206
Encumbrances on real estate	U.S. dollars	Current – 2020	11	21
Total borrowed funds			\$ 188	\$ 227

Interest expense for the borrowed funds was \$10 and \$13 for 2018 and 2017. The aggregate maturities of borrowed funds are included in Note 6.

12.C Senior Financing

On November 8, 2007, a structured entity consolidated by us issued a US\$1,000 variable principal floating rate certificate (the "Certificate") to a financial institution (the "Lender"). At the same time, Sun Life Assurance Company of Canada-U.S. Operations Holdings, Inc. ("U.S. Holdings"), a subsidiary of SLF Inc., entered into an agreement with the Lender, pursuant to which U.S. Holdings will bear the ultimate obligation to repay the outstanding principal amount of the Certificate and be obligated to make quarterly interest payments at three-month LIBOR plus a fixed spread. SLF Inc. has fully guaranteed the obligation of U.S. Holdings. The structured entity issued additional certificates after the initial issuance, totaling to US\$515, none of which were issued during 2018 and 2017. Total collateral posted per the financing agreement was US\$nil as at December 31, 2018 (US\$nil as at December 31, 2017).

The maximum capacity of this agreement is US\$2,500. The agreement expires on November 8, 2037 and the maturity date may be extended annually for additional one-year periods upon the mutual agreement of the parties, provided such date is not beyond November 8, 2067. The agreement can be cancelled or unwound at the option of U.S. Holdings in whole or in part from time to time, or in whole under certain events.

For the year ended December 31, 2018, we recorded \$57 of interest expense relating to this obligation (\$36 in 2017). The fair value of the obligation is \$1,879 (\$1,776 in 2017). The fair value is determined by discounting the expected future cash flows using a current market interest rate adjusted by SLF Inc.'s credit spread and is categorized in Level 3 of the fair value hierarchy.

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	2018	2017
SLF Inc. senior debentures					
Series D issued June 30, 2009 ⁽²⁾	5.70%	n/a	2019	\$ 300	\$ 300
Series E issued August 23, 2011 ⁽²⁾	4.57%	n/a	2021	299	299
Sun Life Assurance senior debentures ⁽³⁾					
Issued to Sun Life Capital Trust ("SLCT I")					
Series B issued June 25, 2002	7.09%	June 30, 2032 ⁽⁴⁾	2052	200	200
Issued to Sun Life Capital Trust II ("SLCT II")					
Series C issued November 20, 2009 ⁽⁵⁾	6.06%	December 31, 2019 ⁽⁶⁾	2108	500	500
Total senior debentures				\$ 1,299	\$ 1,299
Fair value				\$ 1,390	\$ 1,439

(1) All senior debentures are unsecured.

(2) Redeemable in whole or in part at any time prior to maturity at a price equal to the greater of par and a price based on the yield of a corresponding Government of Canada bond plus 0.575% for the Series D debentures and 0.53% for the Series E debentures.

(3) Redemption is subject to regulatory approval.

(4) 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.

(5) On December 31, 2019, and every fifth anniversary thereafter ("Interest Reset Date"), the interest rate will reset to an annual rate equal to the five-year Government of Canada bond yield plus 3.60%.

(6) Redeemable in whole or in part. If redemption occurs on an Interest Reset Date, the redemption price is par; otherwise, it is the greater of par and a price based on the yield of a corresponding Government of Canada bond plus (i) 0.65% if redemption occurs prior to December 31, 2019, or (ii) 1.30% if redemption occurs after December 31, 2019. Also redeemable in whole at par at any time upon the occurrence of a Regulatory Event or Tax Event, as described in the debenture.

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 \$76 for 2018 and 2017, respectively.

The senior debentures issued by SLF Inc. are direct senior unsecured obligations and rank equally with other unsecured and unsubordinated indebtedness of SLF Inc.

13.B Innovative Capital Instruments

Innovative capital instruments consist of Sun Life Exchangeable Capital Securities ("SLEECs"), which were issued by SLCT I and SLCT II (together "SL Capital Trusts"), established as trusts 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. SLCT II issued Sun Life Exchangeable Capital Securities – Series 2009-1 ("SLEECs 2009-1"), which are subordinated unsecured debt obligations. Holders of SLEECs 2009-1 are eligible to receive semi-annual interest payments. The proceeds of the issuances of SLEECs B and SLEECs 2009-1 were used by the SL Capital Trusts to purchase senior debentures of Sun Life Assurance. The SL Capital Trusts are 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 the SL Capital Trusts are reported on our Consolidated Financial Statements.

The SLEECs 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 the SL Capital Trusts on the SLEECs 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"). In the case of the SLEECs 2009-1, if a Missed Dividend Event occurs or if an interest payment is not made in cash on the SLEECs 2009-1 for any reason, including at the election of Sun Life Assurance, holders of the SLEECs 2009-1 will be required to invest interest paid on the SLEECs 2009-1 in non-cumulative perpetual preferred shares of Sun Life Assurance. In the case of the SLEECs B, 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 the SL Capital Trusts fail to pay in cash the semi-annual interest payments or distributions on the SLEECs 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 and each one thousand dollars principal amount of SLEECs 2009-1 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 automatically exchanged ("Automatic Exchange Event"). Upon an Automatic Exchange Event, former holders of the SLEECs will cease to have any claim or entitlement to distributions, interest or principal against the issuing SL Capital Trusts and will rank as preferred shareholders of Sun Life Assurance in a liquidation of Sun Life Assurance.

According to OSFI guidelines, innovative capital instruments can comprise up to 15% of net Tier 1 capital with an additional 5% eligible for Tier 2B capital. As at December 31, 2018, for regulatory capital purposes of Sun Life Assurance, \$699 (2017 – \$699) represented Tier 1 capital.

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(1)(2)(3)(4) SLEECs B	June 25, 2002	June 30, December 31	7.093%	June 30, 2007	Any time	\$ 200
Sun Life Capital Trust II(1)(2) SLEECs 2009-1	November 20, 2009	June 30, December 31	5.863% ⁽⁵⁾	December 31, 2014	No conversion option	500
Total						\$ 700

- (1) Subject to regulatory approval, the SL Capital Trusts may (i) redeem any outstanding SLEECs, in whole or in part, on the redemption date specified above or on any distribution date thereafter, or in the case of SLCT II, on any 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. The SLEECs 2009-1 may be redeemed for cash equivalent to, on any day that is not an Interest Reset Date, accrued and unpaid interest on the SLEECs 2009-1 plus the greater of par and a price calculated to provide an annual yield equal to the yield of a Government of Canada bond maturing on the next Interest Reset Date plus (i) 0.60% if the redemption date is prior to December 31, 2019 or (ii) 1.20% if the redemption date is any time after December 31, 2019. On an Interest Reset Date, the redemption price is equal to par plus accrued and unpaid interest on the SLEECs 2009-1.
- (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.
- (5) Holders of SLEECs 2009-1 are eligible to receive semi-annual interest payments at a fixed rate until December 31, 2019. The interest rate on the SLEECs 2009-1 will reset on December 31, 2019 and every fifth anniversary thereafter to equal the five-year Government of Canada bond yield plus 3.40%.

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	Earliest par call or redemption date ⁽¹⁾	Maturity	2018	2017
Sun Life Assurance:					
Issued May 15, 1998 ⁽²⁾	6.30%	n/a	2028	\$ 150	\$ 150
Sun Life Financial Inc.:					
Issued May 29, 2007 ⁽³⁾	5.40%	May 29, 2037 ⁽⁴⁾	2042	398	398
Issued January 30, 2008 ⁽⁵⁾	5.59%	January 30, 2018 ⁽⁵⁾	2023	—	400
Issued March 2, 2012 ⁽⁶⁾	4.38%	March 2, 2017 ⁽⁶⁾	2022	—	—
Issued May 13, 2014 ⁽⁷⁾	2.77%	May 13, 2019	2024	250	249
Issued September 25, 2015 ⁽⁸⁾	2.60%	September 25, 2020	2025	499	498
Issued February 19, 2016 ⁽⁹⁾	3.10%	February 19, 2021	2026	349	349
Issued September 19, 2016 ⁽¹⁰⁾	3.05%	September 19, 2023 ⁽⁴⁾	2028	995	995
Issued November 23, 2017 ⁽¹¹⁾	2.75%	November 23, 2022	2027	398	398
Total subordinated debt				\$ 3,039	\$ 3,437
Fair value				\$ 3,129	\$ 3,583

- (1) The debentures issued by SLF Inc. in 2007 are redeemable at any time and the debentures issued by SLF Inc. in 2014, 2015, 2016, and 2017 are redeemable on or after the date specified. From the date noted, the redemption price is par and redemption may only occur on a scheduled interest payment date. Redemption of all subordinated debentures is subject to regulatory approval.
- (2) 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. These debentures are redeemable at any time. Prior to May 15, 2028, the redemption price is the greater of par and a price based on the yield of a corresponding Government of Canada bond plus 0.16%.
- (3) Series 2007-1 Subordinated Unsecured 5.40% Fixed/Floating Debentures due 2042. From May 29, 2037, interest is payable at 1.00% over Canadian dollar offered rate for three-month bankers' acceptances ("CDOR").
- (4) For redemption of the 2007 debentures prior to the date noted, and for redemptions of the September 19, 2016 debentures between September 19, 2021 and September 19, 2023, the redemption price is the greater of par and a price based on the yield of a corresponding Government of Canada bond plus 0.25% for the 2007 debentures and 0.52% for the September 19, 2016 debentures.
- (5) Series 2008-1 Subordinated Unsecured 5.59% Fixed/Floating Debentures due 2023. On January 30, 2018, SLF Inc. redeemed all of the outstanding \$400 principal amount of these debentures at a redemption price equal to the principal amount together with accrued and unpaid interest.
- (6) Series 2012-1 Subordinated Unsecured 4.38% Fixed/Floating Debentures due 2022. On March 2, 2017, SLF Inc. redeemed all of the outstanding \$800 principal amount of these debentures at a redemption price equal to the principal amount together with accrued and unpaid interest.
- (7) Series 2014-1 Subordinated Unsecured 2.77% Fixed/Floating Debentures due 2024. From May 13, 2019, interest is payable at 0.75% over CDOR.
- (8) Series 2015-1 Subordinated Unsecured 2.60% Fixed/Floating Debentures due 2025. From September 25, 2020, interest is payable at 1.43% over CDOR.
- (9) Series 2016-1 Subordinated Unsecured 3.10% Fixed/Floating Debentures due 2026. From February 19, 2021, interest is payable at 2.20% over CDOR.
- (10) Series 2016-2 Subordinated Unsecured 3.05% Fixed/Floating Debentures due 2028. From September 19, 2023, interest is payable at 1.85% over CDOR.
- (11) Series 2017-1 Subordinated Unsecured 2.75% Fixed/Floating Debentures due 2027. From November 23, 2022, interest is payable at 0.74% over CDOR.

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 \$105 and \$122 for 2018 and 2017, respectively.

15. Share Capital

The authorized share capital of SLF Inc. 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 SLF Inc. There are no pre-emptive, redemption, purchase, or conversion rights attached to the common shares.
- An unlimited number of Class A and Class B non-voting shares, issuable in series. The Board is authorized before issuing the shares, to fix the number, the consideration per share, the designation of, and the rights and restrictions of the Class A and Class B shares of each series, subject to the special rights and restrictions attached to all the Class A and Class B shares. The Board has authorized 13 series of Class A non-voting preferred shares, 10 of which are outstanding.

The common and preferred shares of SLF Inc. qualify as capital for Canadian regulatory purposes. See Note 21.

Dividends and Restrictions on the Payment of Dividends

Under the *Insurance Companies Act* (Canada), SLF Inc. and Sun Life Assurance are each 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.

SLF Inc. and Sun Life Assurance have each covenanted that, if a distribution is not paid when due on any outstanding SLEECs issued by the SL Capital Trusts, then (i) Sun Life Assurance will not pay dividends on its public preferred shares, if any are outstanding, and

(ii) if Sun Life Assurance does not have any public preferred shares outstanding, then SLF Inc. will not pay dividends on its preferred shares or common shares, in each case, until the 12th month (in the case of the SLEECs issued by SLCT I) or 6th month (in the case of SLEECs issued by SLCT II) 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, 2018, Sun Life Assurance did not have outstanding any shares that qualify as public preferred shares.

The terms of SLF Inc.'s outstanding preferred shares provide that for so long as Sun Life Assurance is a subsidiary of SLF Inc., no dividends on such preferred shares are to be declared or paid if Sun Life Assurance's minimum regulatory capital ratio falls below the applicable threshold.

In addition, under the terms of SLF Inc.'s outstanding preferred shares, SLF Inc. cannot pay dividends on its common shares without the approval of the holders of those preferred shares unless all dividends on the preferred shares for the last completed period for which dividends are payable have been declared and paid or set apart for payment.

Currently, the above limitations do not restrict the payment of dividends on SLF Inc.'s preferred or common shares.

The declaration and payment of dividends on SLF Inc.'s shares 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 changes in common shares issued and outstanding for the years ended December 31 were as follows:

	2018		2017	
	Number of shares	Amount	Number of shares	Amount
Common shares (in millions of shares)				
Balance, January 1	610.5	\$ 8,582	613.6	\$ 8,614
Stock options exercised (Note 19)	0.4	16	0.4	18
Common shares purchased for cancellation ⁽¹⁾	(12.5) ⁽²⁾	(183)	(3.5)	(50)
Common shares issued as consideration for business acquisition	0.1	4	—	—
Balance, December 31	598.5	\$ 8,419	610.5	\$ 8,582

- (1) On August 14, 2018 and August 14, 2017, SLF Inc. launched normal course issuer bids to purchase and cancel up to 14 million common shares of SLF Inc. ("commons shares") between August 14, 2018 and August 13, 2019 (the "2018 NCIB") and 11.5 million common shares between August 14, 2017 and August 13, 2018, respectively. Common shares purchased for cancellation are purchased through the facilities of the Toronto Stock Exchange, other Canadian stock exchanges, and/or alternative Canadian trading platforms, at prevailing market rates, or by way of private agreements or share repurchase programs under issuer bid exemption orders issued by securities regulatory authorities at a discount to the prevailing market price. On December 10, 2018, in connection with the 2018 NCIB, SLF Inc. implemented an automatic repurchase plan with its designated broker in order to facilitate purchases of common shares. Under the automatic repurchase plan, SLF Inc.'s designated broker may purchase common shares pursuant to the 2018 NCIB at times when SLF Inc. ordinarily would not be active in the market due to regulatory restrictions or self-imposed blackout periods. In 2018, SLF Inc. purchased and cancelled approximately 12.5 million common shares at an average price per share of \$50.83 for a total amount of \$635 under these programs. An additional 0.1 million common shares were purchased in 2018 and cancelled in 2019 at an average price of \$44.91 for a total amount of \$6 under the 2018 NCIB. The total amount paid to purchase the shares is allocated to Common shares and Retained earnings in our Consolidated Statements of Changes in Equity. The amount allocated to Common shares is based on the average cost per common share and amounts paid above the average cost are allocated to Retained earnings.
- (2) 1.1 million shares were purchased pursuant to a third-party share repurchase program under an issuer bid exemption order at a discount to the prevailing market price of the common shares on the Toronto Stock Exchange.

15.B Preferred Shares

There were no changes in preferred shares issued and outstanding for the years ended December 31, 2018 and December 31, 2017.

Further information on the preferred shares outstanding as at December 31, 2018, is as follows:

Class A Preferred shares (in millions of shares)	Issue date	Annual dividend rate	Annual dividend per share	Earliest par call or redemption date ⁽¹⁾	Number of shares	Face amount	Net amount ⁽²⁾
Series 1	February 25, 2005	4.75%	\$ 1.19	Any time	16.0	\$ 400	\$ 394
Series 2	July 15, 2005	4.80%	\$ 1.20	Any time	13.0	325	318
Series 3	January 13, 2006	4.45%	\$ 1.11	Any time	10.0	250	245
Series 4	October 10, 2006	4.45%	\$ 1.11	Any time	12.0	300	293
Series 5	February 2, 2007	4.50%	\$ 1.13	Any time	10.0	250	245
Series 8R ⁽³⁾	May 25, 2010	2.275% ⁽³⁾	\$ 0.57	June 30, 2020 ⁽⁴⁾	5.2	130	127
Series 9QR ⁽⁶⁾	June 30, 2015	Floating ⁽⁵⁾	Floating	June 30, 2020 ⁽⁷⁾	6.0	150	147
Series 10R ⁽³⁾	August 12, 2011	2.842% ⁽³⁾	\$ 0.71 ⁽⁸⁾	September 30, 2021 ⁽⁴⁾	6.9	173	169
Series 11QR ⁽⁶⁾	September 30, 2016	Floating ⁽⁵⁾	Floating	September 30, 2021 ⁽⁷⁾	1.1	27	26
Series 12R ⁽³⁾	November 10, 2011	3.806% ⁽³⁾	\$ 0.95 ⁽⁸⁾	December 31, 2021 ⁽⁴⁾	12.0	300	293
Total preferred shares					92.2	\$ 2,305	\$ 2,257

(1) Redemption of all preferred shares is subject to regulatory approval.

(2) Net of after-tax issuance costs.

(3) On the earliest redemption date and every five years thereafter, the dividend rate will reset to an annual rate equal to the 5-year Government of Canada bond yield plus a spread specified for each series. The specified spread for Class A shares is: Series 8R – 1.41%, Series 10R – 2.17% and Class A Non-Cumulative 5-Year Rate Reset Preferred Shares Series 12R ("Series 12R Shares") – 2.73%. On the earliest redemption date and every five years thereafter, holders will have the right, at their option, to convert their shares into the series that is one number higher than their existing series.

(4) Redeemable on the redemption date and every five years thereafter, in whole or in part, at \$25.00 per share.

(5) Holders are entitled to receive quarterly floating rate non-cumulative dividends at an annual rate equal to the then 3-month Government of Canada treasury bill yield plus a spread specified for each series. The specified spread for Class A shares is: Series 9QR – 1.41% and Series 11QR – 2.17%.

(6) On the earliest redemption date and every five years thereafter, holders will have the right, at their option, to convert those shares into the series that is one number lower than their existing series.

(7) Redeemable on the redemption date and every five years thereafter, in whole or in part, at \$25.00 per share, and on any other date at \$25.50 per share.

(8) The annual dividend per share in the table above is the amount paid per share in 2018.

16. Interests in Other Entities

16.A Subsidiaries

Our principal subsidiaries are Sun Life Assurance and Sun Life Global Investments Inc. Sun Life Assurance is our principal operating insurance company and holds our insurance operations in Canada, the U.S., the U.K., the Philippines, Hong Kong, Indonesia and Vietnam. These insurance operations are operated directly by Sun Life Assurance or through other subsidiaries. Sun Life Global Investments Inc. is a non-operating holding company that holds our asset management businesses, including Massachusetts Financial Services Company and the group of companies under SLIM.

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,	2018	2017
Carrying amount of interests in joint ventures and associates	\$ 1,500	\$ 1,369
Our share of:		
Net income (loss)	91	67
Other comprehensive income (loss)	7	(31)
Total comprehensive income (loss)	\$ 98	\$ 36

In 2018, we increased our investment in our joint ventures and associates by \$64 (\$121 in 2017), primarily in Asia.

During 2018, we received dividends from our joint ventures and associates of \$34 (\$36 in 2017). We also incurred rental expenses of \$16 (\$9 in 2017) related to leases with our joint ventures and associates, with the remaining future rental payments payable to our joint ventures and associates totaling \$228 over 14 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 \$1,223 as at December 31, 2018 (\$1,205 as at December 31, 2017). The fair value of these jointly controlled assets is \$1,307 as at December 31, 2018 (\$1,293 as at December 31, 2017).

16.D Unconsolidated Structured Entities

SLF Inc. 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,			2018		2017	
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 – third-party managed	Debt securities	Debt securities	\$ 7,366	\$ 7,366	\$ 5,899	\$ 5,899
Securitization entities – third-party managed	Short-term securities	Cash, cash equivalents and short-term securities	\$ 430	\$ 430	\$ 725	\$ 725
Investment funds – third-party managed	Investment fund units	Equity securities	\$ 3,439	\$ 3,439	\$ 4,877	\$ 4,877
Investment funds – company managed ⁽²⁾	Investment fund units and Limited partnership units	Equity securities and Other invested assets	\$ 1,705	\$ 1,705	\$ 1,455	\$ 1,455
Limited partnerships – third-party managed	Limited partnership units	Other invested assets	\$ 1,557	\$ 1,557	\$ 1,258	\$ 1,258

(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 with a carrying amount of \$213 (\$245 in 2017).

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.

Third-Party Managed

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.

Company Managed

We provide collateral management services to various securitization entities, primarily CDOs, from which we earn a fee for our services. The financial support provided to these entities is limited to the carrying amount of our investment in these entities. We provide no guarantees or other contingent support to these entities. We have not consolidated these entities since we do not have significant variability from our interests in these entities and we do not have any investment in these entities.

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. The preceding table includes our investments in all investment funds, including mutual funds, exchange-traded funds, and segregated 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. Investment funds and limited partnerships are generally financed through the issuance of investment fund units or limited partnership units.

Third-Party Managed

We hold units in investment funds and limited partnerships managed by third-party asset managers. 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 investment funds or limited partnerships that are structured entities since we do not have power to direct their relevant activities.

Company Managed

We hold units in Company managed investment funds and limited partnerships. We generally have power over Company managed investment funds and limited partnerships that are structured entities since we have power to direct the relevant activities of the funds and limited partnerships. However, we have not consolidated these funds and limited partnerships since we do not have significant variability from our interests in these funds and limited partnerships. We earn management fees from the management of these investment funds and limited partnerships that are commensurate with the services provided and are reported in Fee income.

Management fees are generally based on the value of the assets under management. Therefore, the fees earned are impacted by the composition of the assets under management and fluctuations in financial markets. The fee income earned is included in Fund management and other asset based fees in Note 17. We also hold units in investment funds and limited partnerships managed by our joint ventures. Our share of the management fees earned is included as part of the Net income (loss) reported in Note 16.B.

16.E Consolidated Structured Entities

A significant structured entity consolidated by us is the entity that issued the senior financing that is described in more detail in Note 12.C. We also consolidate certain investment funds managed by Sun Life Institutional Investments (Canada) Inc. that invest primarily in mortgages and investment properties.

17. Fee Income

Fee income for the years ended December 31 consists of the following:

	2018	2017 ⁽¹⁾
Fee income from insurance contracts	\$ 968	\$ 894
Fee income from service contracts:		
Distribution fees	829	867
Fund management and other asset-based fees	3,444	3,423
Administrative service and other fees	725	658
Total fee income	\$ 5,966	\$ 5,842

(1) Balances in 2017 have been changed to conform with current year presentation as a result of the adoption of IFRS 15 described in Note 2.

Distribution fees and Fund management and other asset-based fees are primarily earned in the SLF Asset Management segment. Administrative service and other fees are primarily earned in the SLF Canada segment. The fee income by reportable segment is presented in Note 4.

18. Operating Expenses

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

	2018	2017
Employee expenses ⁽¹⁾	\$ 3,707	\$ 3,672
Premises and equipment	268	263
Capital asset depreciation	107	97
Service fees	870	799
Amortization of intangible assets (Note 9)	119	112
Other expenses ⁽²⁾	1,361	1,467
Total operating expenses	\$ 6,432	\$ 6,410

(1) See table below for further details.

(2) Includes restructuring costs of \$60 recorded in 2017 for the Company's plan to enhance business processes and organizational structures and capabilities.

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

	2018	2017
Salaries, bonus, employee benefits	\$ 3,322	\$ 3,155
Share-based payments (Note 19)	346	476
Other personnel costs	39	41
Total employee expenses	\$ 3,707	\$ 3,672

19. Share-Based Payments

19.A Stock Option Plans

SLF Inc. has granted stock options to eligible employees under the Executive Stock Option Plan. These options are granted at the closing price of the common shares on the Toronto Stock Exchange ("TSX") on the grant date for stock options granted after January 1, 2007. The options granted under the stock option plans vest over a four-year period. All options have a maximum exercise period of 10 years. The maximum numbers of common shares that may be issued under the Executive Stock Option Plan are 29,525,000 shares.

The activities in the stock option plans for the years ended December 31 are as follows:

	2018		2017	
	Number of stock options (thousands)	Weighted average exercise price	Number of stock options (thousands)	Weighted average exercise price
Balance, January 1,	3,008	\$ 33.88	3,397	\$ 34.19
Granted	517	\$ 53.96	369	\$ 48.20
Exercised	(399)	\$ 34.57	(437)	\$ 34.70
Forfeited	(25)	\$ 43.79	(4)	\$ 47.96
Expired	—	\$ —	(317)	\$ 52.54
Balance, December 31,	3,101	\$ 37.06	3,008	\$ 33.88
Exercisable, December 31,	2,041	\$ 30.97	2,071	\$ 29.76

The average share price at the date of exercise of stock options for the year ended December 31, 2018 was \$53.28 (\$49.98 for 2017).

Compensation expense for stock options was \$3 for the year ended December 31, 2018 (\$3 for 2017).

The stock options outstanding as at December 31, 2018, by exercise price, are as follows:

Range of exercise prices	Number of stock options (thousands)	Weighted average remaining contractual life (years)	Weighted average exercise price
\$18.00 to \$24.00	624	2.63	\$ 21.28
\$24.01 to \$30.00	350	3.74	\$ 27.79
\$30.01 to \$35.00	308	1.82	\$ 31.11
\$35.01 to \$45.00	949	6.23	\$ 39.45
\$45.01 to \$53.96	870	8.75	\$ 51.62
Total stock options	3,101	5.49	\$ 37.06

The weighted average fair values of the stock options, calculated using the Black-Scholes option pricing model, granted during the year ended December 31, 2018 was \$7.00 (\$9.41 for 2017). The Black-Scholes option pricing model used the following assumptions to determine the fair value of options granted during the years ending December 31:

Weighted average assumptions	2018	2017
Risk-free interest rate	2.2%	1.3%
Expected volatility	21.3%	31.7%
Expected dividend yield	4%	4%
Expected life of the option (in years)	6.3	6.3
Exercise price	\$ 53.96	\$ 48.20

Expected volatility is based on historical volatility of the common shares, implied volatilities from traded options on the common shares, and other factors. The expected term of options granted is derived based on historical employee exercise behaviour and employee termination experience. The risk-free rate for periods within the expected term of the option is based on the Canadian government bond yield curve in effect at the time of grant.

19.B Employee Share Ownership Plan

In Canada, we match eligible employees' contributions to the Sun Life Financial Employee Stock Plan. Employees may elect to contribute from 1% to 20% of their target annual compensation to the Sun Life Financial Employee Stock Plan. Under this plan the match is provided for employees who have met one year of employment eligibility and is equal to 50% of the employee's contributions up to 5% of an employee's annual compensation. The match is further capped by a one thousand five hundred dollar annual maximum. Our contributions vest immediately and are expensed. We recorded an expense of \$8 for the year ended December 31, 2018 (\$7 for 2017).

19.C Other Share-Based Payment Plans

All other share-based payment plans use notional units that are valued based on the common share price on the TSX. Any fluctuation in the 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 the 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 annual incentive award in the form of DSUs. Each DSU is equivalent in value to one common share and earns dividend equivalents in the form of additional DSUs at the same rate as the dividends on common shares. 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 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 and have a grant price equal to the average of the closing price of a common share 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. Units 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 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, 2018	5,967	854	6,821
Units outstanding December 31, 2017	6,507	1,040	7,547
Liability accrued as at December 31, 2018	\$ 200	\$ 35	\$ 235
Liability accrued as at December 31, 2017	\$ 250	\$ 50	\$ 300

Compensation expense and the income tax expense (benefit) for other 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 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,	2018	2017
Compensation expense	\$ 87	\$ 125
Income tax expense (benefit)	\$ (21)	\$ (32)

19.D Share-Based Payment Plans of MFS

Share-based payment awards within MFS are based on their own shares. Restricted share awards and stock option awards are settled in MFS shares and restricted stock unit awards are settled in cash. Restricted share awards, restricted stock unit awards, and stock option awards generally vest over a four-year period and continued employment is generally the only service requirement for these awards. Holders of restricted share awards and restricted stock unit awards are entitled to receive non-forfeitable dividend equivalent payments during the vesting period at the same rate as the dividends on MFS's shares.

Although restricted share awards and stock option awards are settled in shares, all of the MFS share-based awards, including outstanding MFS shares, are accounted for as cash-settled share-based payment awards due to the fact that MFS has a practice of repurchasing its outstanding shares after a specified holding period. The fair value of stock option awards is determined using the Black-Scholes option pricing model, while the fair value of restricted share awards, restricted stock unit awards, and outstanding MFS shares are estimated using a market consistent share valuation model. The amount of periodic compensation expense recognized is impacted by grants of new awards, vesting, exercise, and forfeiture of unvested awards, share repurchases, changes in fair value of awards, and outstanding MFS shares. The total liability accrued attributable to all MFS share-based payment plans as at December 31, 2018 was \$831 (\$844 as at December 31, 2017) which includes a liability of \$677 (US\$496) for the stock options, restricted shares, and outstanding MFS shares.

Compensation expense and the income tax expense (benefit) for these awards for the years ended December 31 are shown in the following table:

For the years ended December 31,	2018	2017
Compensation expense	\$ 248	\$ 341
Income tax expense (benefit)	\$ (49)	\$ (85)

20. Income Taxes

20.A Deferred Income Taxes

The following represents the deferred tax assets and liabilities in the Consolidated Statements of Financial Position by source of temporary differences:

As at December 31,	2018		2017	
	Assets ⁽¹⁾	Liabilities ⁽¹⁾	Assets ⁽¹⁾	Liabilities ⁽¹⁾
Investments	\$ (738)	\$ 8	\$ (841)	\$ 116
Policy liabilities ⁽²⁾	1,116	379	1,218	322
Deferred acquisition costs	95	(1)	84	7
Losses available for carry forward	600	(48)	543	(6)
Pension and other employee benefits	183	(136)	201	(150)
Other ⁽³⁾	(47)	120	90	114
Total	\$ 1,209	\$ 322	\$ 1,295	\$ 403
Total net deferred tax asset	\$ 887		\$ 892	

(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. Negative amounts reported under Assets are deferred tax liabilities included in a net deferred tax asset position; negative amounts under Liabilities are deferred tax assets included in a net deferred tax liability position.

(2) Consists of Insurance contract liabilities and Investment contract liabilities net of Reinsurance assets.

(3) Includes unused tax credits.

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 ⁽²⁾	Total
As at December 31, 2017	\$ (957)	\$ 896	\$ 77	\$ 549	\$ 351	\$ (24)	\$ 892
Charged to statement of operations	195	(170)	6	107	(26)	(149)	(37)
Charged to other comprehensive income	45	—	—	(13)	(17)	9	24
Charged to equity, other than other comprehensive income	—	—	6	—	—	3	9
Foreign exchange rate movements	(29)	11	7	5	11	(6)	(1)
As at December 31, 2018	\$ (746)	\$ 737	\$ 96	\$ 648	\$ 319	\$ (167)	\$ 887

(1) Consists of Insurance contract liabilities and Investment contract liabilities net of Reinsurance assets.

(2) Includes unused tax credits.

	Investments	Policy liabilities ⁽¹⁾	Deferred acquisition costs	Losses available for carry forward	Pension and other employee benefits	Other ⁽²⁾	Total
As at December 31, 2016	\$ (1,064)	\$ 517	\$ 171	\$ 513	\$ 410	\$ 214	\$ 761
Acquisitions (disposals) through business combinations	—	—	—	—	—	(10)	(10)
Charged to statement of operations	132	388	(74)	43	(66)	(209)	214
Charged to other comprehensive income	(73)	—	—	(9)	22	(4)	(64)
Foreign exchange rate movements	48	(9)	(20)	2	(15)	(15)	(9)
As at December 31, 2017	\$ (957)	\$ 896	\$ 77	\$ 549	\$ 351	\$ (24)	\$ 892

(1) Consists of Insurance contract liabilities and Investment contract liabilities net of Reinsurance assets.

(2) Includes unused tax credits.

We have accumulated non-capital tax losses, primarily in Canada, the Philippines, and the U.K., totaling \$3,245 (\$2,662 in 2017). The benefit of these tax losses has been recognized to the extent that it is probable that the benefit will be realized. In addition, in the U.S., we have, net capital losses of \$30 (\$26 in 2017) for which a deferred tax asset of \$6 (\$6 in 2017) has been recognized. Unused tax losses for which a deferred tax asset has not been recognized amount to \$702 as of December 31, 2018 (\$511 in 2017) primarily in the Philippines and Indonesia. We also have capital losses of \$460 in the U.K. (\$449 in 2017) and \$176 in Canada (\$176 in 2017) for which a deferred tax asset of \$102 (\$100 in 2017) 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 2028 and the capital losses can be carried forward indefinitely. The operating and capital losses in the U.K. can be carried forward indefinitely. The non-capital losses in the Philippines can be carried forward three years, and the non-capital losses in Indonesia can be carried forward five years. Net capital losses in the U.S. expire beginning in 2021.

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, 2018, temporary differences associated with investments in subsidiaries, branches, joint ventures and associates for which a deferred tax liability has not been recognized amount to \$5,723 (\$5,611 in 2017).

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:

	2018	2017
Current income tax expense (benefit):		
Current year	\$ 561	\$ 445
Adjustments in respect of prior years, including resolution of tax disputes	(1)	25
Tax rate and other legislative changes	—	46
Total current income tax expense (benefit)	560	516
Deferred income tax expense (benefit):		
Origination and reversal of temporary differences	42	(151)
Tax expense (benefit) arising from unrecognized tax losses	4	—
Adjustments in respect of prior years, including resolution of tax disputes	(9)	(10)
Tax rate and other legislative changes	—	(53)
Total deferred income tax expense (benefit)	37	(214)
Total income tax expense (benefit)	\$ 597	\$ 302

20.B.ii Income tax benefit (expense) recognized directly in equity for the years ended December 31:

	2018	2017
Recognized in other comprehensive income:		
Current income tax benefit (expense)	\$ (4)	\$ 2
Deferred income tax benefit (expense)	24	(64)
Total recognized in other comprehensive income	20	(62)
Recognized in equity, other than other comprehensive income:		
Deferred income tax benefit (expense)	9	—
Total income tax benefit (expense) recorded in equity, including tax benefit (expense) recorded in other comprehensive income	\$ 29	\$ (62)

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,	2018		2017	
		%		%
Total net income (loss)	\$ 2,914		\$ 2,487	
Add: Income tax expense (benefit)	597		302	
Total net income (loss) before income taxes	\$ 3,511		\$ 2,789	
Taxes at the combined Canadian federal and provincial statutory income tax rate	\$ 939	26.8	\$ 746	26.8
Increase (decrease) in rate resulting from:				
Higher (lower) effective rates on income subject to taxation in foreign jurisdictions	(222)	(6.3)	(257)	(9.2)
Tax exempt investment income	(131)	(3.8)	(213)	(7.6)
Tax (benefit) cost of unrecognized tax losses and tax credits	4	0.1	—	—
Tax rate and other legislative changes	—	—	(7)	(0.3)
Adjustments in respect of prior years, including resolution of tax disputes	(10)	(0.3)	15	0.5
Other	17	0.5	18	0.6
Total tax expense (benefit) and effective income tax rate	\$ 597	17.0	\$ 302	10.8

Statutory income tax rates in other jurisdictions in which we conduct business range from 0% to 30%, 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, higher earnings in jurisdictions with higher statutory tax rates result in an increase of our tax expense, while earnings arising in tax jurisdictions with statutory rates lower than 26.75% (rounded to 26.8% in the table above) 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 2018 included higher income in jurisdictions with low statutory income tax rates compared to 2017, as well as losses in jurisdictions with high statutory income tax rates.

Tax exempt investment income includes tax rate differences related to various types of investment income that is taxed at rates lower than our statutory income tax rate, such as dividend income, capital gains arising in Canada, and various others. Fluctuations in foreign exchange rates, changes in market values of real estate properties and other investments have an impact on the amount of these tax rate differences.

Tax (benefit) cost of unrecognized tax losses/tax credits reflects unrecognized losses in Asia that were recognized in 2018.

U.S. tax reform legislation was signed into law on December 22, 2017 and took effect on January 1, 2018. The legislation includes a reduction to the corporate tax rate from 35% to 21% for tax years beginning after 2017, and a one-time tax on the deemed repatriation of foreign earnings. Tax rate and other legislative changes in 2017 includes a benefit relating to the revaluation of our deferred tax balances of \$53 and a one-time deemed repatriation charge of \$46.

Adjustments in respect of prior periods, including the resolution of tax disputes relates primarily to tax audit adjustments and the finalization of tax filings in Canada, Asia and the U.S. in 2018, and in Canada and the U.S. in 2017.

Other in 2018 includes a charge of \$28 (\$26 in 2017) relating to withholding taxes on distributions from our foreign subsidiaries. The charge has been primarily offset by a benefit of \$16 relating to investments in joint ventures in Asia (\$16 in 2017), which are accounted for using the equity method.

21. Capital Management

21.A Capital

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 SLF Inc. 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 & Conduct Review 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 & Conduct Review 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 shareholders. 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. SLF Inc. manages its capital in a manner commensurate with its risk profile and control environment.

Regulated insurance holding companies and non-operating life companies were subject to the Minimum Continuing Capital and Surplus Requirements ("MCCSR") capital rules which had been established by OSFI and which were in force as at December 31, 2017.

Effective January 1, 2018, OSFI has replaced MCCSR with LICAT. Results as measured under LICAT are fundamentally different than under MCCSR and are not directly comparable to MCCSR. The LICAT Guideline sets a Supervisory Target Total Ratio of 100% and a minimum Total Ratio of 90%. The Company has established capital targets in excess of the Supervisory Target Total Ratio. SLF Inc.'s consolidated capital position was above its internal target and exceeded levels that would require regulatory or corrective action as at December 31, 2018 and December 31, 2017.

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, 2018 and December 31, 2017.

At December 31, 2018, our principal operating life insurance subsidiary in Canada, Sun Life Assurance, is also subject to the LICAT Guideline. With a LICAT Ratio of 131% as at December 31, 2018, Sun Life Assurance's LICAT Ratio is above OSFI's supervisory target ratio of 100% and regulatory minimum ratio of 90%. 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, 2018 and December 31, 2017. In the U.S., we use captive reinsurance arrangements to provide efficient financing of U.S. statutory reserve requirements in excess of those required under IFRS. Under one such arrangement, the funding of these reserve requirements is supported by a guarantee from SLF Inc.

Our capital base consists mainly of common shareholders' equity, participating policyholders' equity, preferred shareholders' 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,	2018	2017
Subordinated debt	\$ 3,039	\$ 3,437
Innovative capital instruments ⁽¹⁾	699	699
Equity:		
Participating policyholders' equity	864	650
Preferred shareholders' equity	2,257	2,257
Common shareholders' equity	21,449	20,064
Total capital	\$ 28,308	\$ 27,107

(1) Innovative capital instruments are SLEECs issued by the SL Capital Trusts (Note 13). The SL Capital Trusts are not consolidated by us.

21.B Participating Account Seed Capital

In the first quarter of 2018, with OSFI's approval, seed capital, together with interest earned since demutualization, was transferred from the participating account to the shareholder account. The transfer of seed capital is recorded on our Consolidated Statements of Changes in Equity as a Transfer from participating policyholders' equity totaling \$89, comprised of \$50 in SLF Canada and \$39 (US\$30) in SLF U.S. The transfer of interest on seed capital is included as a reduction in Participating policyholders' net income (loss) and an increase in Shareholders' net income (loss) totaling \$110, on a pre- and post-tax basis, comprised of \$75 in SLF Canada and \$35 (US\$28) in SLF U.S. At the time of demutualization, OSFI required shareholders to transfer seed capital into the participating account to support participating insurance policies sold after demutualization. It was anticipated that over time the seed capital would no longer be needed and that the seed capital and accumulated interest would be returned to the shareholders, subject to OSFI's approval. 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.

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 U.K., 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 the Risk Management section of the MD&A.

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, 2018 and 2017:

Type of fund	%
Money market	1 to 5
Fixed income	10 to 15
Balanced	40 to 45
Equity	40 to 45

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,	2018	2017
Segregated and mutual fund units	\$ 89,049	\$ 91,637
Equity securities	9,771	10,799
Debt securities	3,448	3,517
Cash, cash equivalents and short-term securities	711	457
Investment properties	400	374
Mortgages	23	20
Other assets	156	147
Total assets	\$ 103,558	\$ 106,951
Less: Liabilities arising from investing activities	\$ 496	\$ 559
Total investments for account of segregated fund holders	\$ 103,062	\$ 106,392

22.B Changes in Insurance Contracts and Investment Contracts for Account of Segregated Fund Holders

Changes in insurance contracts and investment contracts for account of segregated fund holders are as follows:

	Insurance contracts		Investment contracts	
For the years ended December 31,	2018	2017	2018	2017
Balance as at January 1	\$ 99,121	\$ 90,388	\$ 7,271	\$ 6,779
Additions to segregated funds:				
Deposits	11,468	10,772	85	86
Net transfer (to) from general funds	(308)	(119)	—	—
Net realized and unrealized gains (losses)	(7,123)	4,141	(658)	883
Other investment income	4,576	4,853	178	152
Total additions	\$ 8,613	\$ 19,647	\$ (395)	\$ 1,121
Deductions from segregated funds:				
Payments to policyholders and their beneficiaries	10,224	9,439	614	643
Management fees	1,004	963	57	57
Taxes and other expenses	256	267	—	12
Foreign exchange rate movements	(413)	245	(194)	(83)
Total deductions	\$ 11,071	\$ 10,914	\$ 477	\$ 629
Net additions (deductions)	\$ (2,458)	\$ 8,733	\$ (872)	\$ 492
Acquisitions	\$ —	\$ —	\$ —	\$ —
Balance as at December 31	\$ 96,663	\$ 99,121	\$ 6,399	\$ 7,271

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 \$1,056. The future rental payments by year of payment are included in the MD&A as described 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, 2018, we had a total of \$3,800 of contractual commitments outstanding. The expected maturities of these commitments are included in the MD&A as described in Note 6.

23.C Letters of Credit

We issue commercial letters of credit in the normal course of business. As at December 31, 2018, we had credit facilities of \$891 available for the issuance of letters of credit (\$835 as at December 31, 2017), from which a total of \$227 in letters of credit were outstanding (\$203 as at December 31, 2017).

23.D 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, 2018, 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.E Guarantees of Sun Life Assurance Preferred Shares and Subordinated Debentures

SLF Inc. has provided a guarantee on the \$150 of 6.30% subordinated debentures due 2028 issued by Sun Life Assurance. Claims under this guarantee will rank equally with all other subordinated indebtedness of SLF Inc. SLF Inc. has also provided a subordinated guarantee of the preferred shares issued by Sun Life Assurance from time to time, other than such preferred shares which are held by SLF Inc. and its affiliates. Sun Life Assurance has no outstanding preferred shares subject to the guarantee. As a result of these guarantees, Sun Life Assurance is entitled to rely on exemptive relief from most continuous disclosure and the certification requirements of Canadian securities laws.

The following tables set forth certain consolidating summary financial information for SLF Inc. and Sun Life Assurance (consolidated):

Results for the years ended	SLF Inc. (unconsolidated)	Sun Life Assurance (consolidated)	Other subsidiaries of SLF Inc. (combined)	Consolidation adjustment	SLF Inc. (consolidated)
December 31, 2018					
Revenue	\$ 361	\$ 22,619	\$ 4,453	\$ (436)	\$ 26,997
Shareholders' net income (loss)	\$ 2,616	\$ 2,036	\$ 382	\$ (2,418)	\$ 2,616
December 31, 2017					
Revenue	\$ 441	\$ 23,421	\$ 7,022	\$ (1,550)	\$ 29,334
Shareholders' net income (loss)	\$ 2,242	\$ 1,577	\$ 427	\$ (2,004)	\$ 2,242

Assets and liabilities as at	SLF Inc. (unconsolidated)	Sun Life Assurance (consolidated)	Other subsidiaries of SLF Inc. (combined)	Consolidation adjustment	SLF Inc. (consolidated)
December 31, 2018					
Invested assets	\$ 24,255	\$ 143,040	\$ 6,991	\$ (22,560)	\$ 151,726
Total other general fund assets	\$ 4,088	\$ 21,958	\$ 10,389	\$ (19,396)	\$ 17,039
Investments for account of segregated fund holders	\$ —	\$ 103,014	\$ 48	\$ —	\$ 103,062
Insurance contract liabilities	\$ —	\$ 122,066	\$ 8,534	\$ (8,677)	\$ 121,923
Investment contract liabilities	\$ —	\$ 3,164	\$ —	\$ —	\$ 3,164
Total other general fund liabilities	\$ 4,636	\$ 21,801	\$ 5,972	\$ (13,301)	\$ 19,108
December 31, 2017					
Invested assets	\$ 23,382	\$ 138,145	\$ 6,531	\$ (21,919)	\$ 146,139
Total other general fund assets	\$ 7,530	\$ 21,437	\$ 17,152	\$ (29,538)	\$ 16,581
Investments for account of segregated fund holders	\$ —	\$ 106,341	\$ 51	\$ —	\$ 106,392
Insurance contract liabilities	\$ —	\$ 118,003	\$ 8,234	\$ (8,452)	\$ 117,785
Investment contract liabilities	\$ —	\$ 3,082	\$ —	\$ —	\$ 3,082
Total other general fund liabilities	\$ 8,591	\$ 21,558	\$ 12,822	\$ (24,089)	\$ 18,882

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 U.K., 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. In the *Fehr* action, the motions judge dismissed the plaintiff's motion for certification in its entirety by way of a two-part decision released on November 12, 2015 and December 7, 2016. The plaintiffs appealed and, in a decision released on September 5, 2018, the Ontario Court of Appeal overturned part of the lower court's decision and certified three alleged breach of contract claims related to the policies. Sun Life Assurance has sought leave to appeal this decision to the Supreme Court of Canada. 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 results of operations of the Company.

24. Related Party Transactions

SLF Inc. and its subsidiaries, joint ventures and associates transact business worldwide. All transactions between SLF Inc. and its subsidiaries have been eliminated on consolidation. Transactions with joint ventures and associates, which are also related parties, are disclosed in Note 16. Transactions between the Company and related parties are executed and priced on an arm's-length basis in a manner similar to transactions with third parties.

24.A Transactions with Key Management Personnel, Remuneration and Other Compensation

Key management personnel refers to the executive team and Board of Directors of SLF Inc. 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,	2018		2017	
	Executive team	Directors	Executive team	Directors
Number of individuals	12	10	11	10
Base salary and annual incentive compensation	\$ 18	\$ –	\$ 18	\$ –
Additional short-term benefits and other	\$ 3	\$ 1	\$ 1	\$ 1
Share-based long-term incentive compensation	\$ 24	\$ 2	\$ 18	\$ 2
Value of pension and post-retirement benefits	\$ 2	\$ –	\$ 3	\$ –

24.B 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. 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, the U.S., and the U.K. 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 U.K. and the U.S. 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 U.K. 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 the sponsoring subsidiary of SLF Inc.

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, in Canada and the U.S., 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 in Canada who retire after December 31, 2015 will have access to voluntary retiree-paid health care coverage. In the U.S., certain post-retirement health care and life insurance benefits are provided to eligible retirees. In the U.S., employees who were not age 50 with 10 years of service as of December 31, 2015 only have access to subsidized retiree health care coverage until eligible for Medicare. Eligible existing and future retirees and covered dependents eligible for Medicare receive an annual contribution to a health reimbursement account to be applied against individual coverage and other eligible expenses.

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, the risk in our U.K. pension plan was reduced through a buy-in insurance contract 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:

	2018			2017		
	Pension	Other post-retirement	Total	Pension	Other post-retirement	Total
Change in defined benefit obligations:						
Defined benefit obligation, January 1	\$ 3,661	\$ 268	\$ 3,929	\$ 3,545	\$ 262	\$ 3,807
Current service cost	54	5	59	47	3	50
Interest cost	118	9	127	122	10	132
Actuarial losses (gains)	(253)	(11)	(264)	209	9	218
Benefits paid	(180)	(15)	(195)	(159)	(11)	(170)
Settlement losses (gains) ⁽¹⁾	—	—	—	(86)	—	(86)
Plan amendments	(1)	—	(1)	(2)	—	(2)
Foreign exchange rate movement	59	6	65	(15)	(5)	(20)
Defined benefit obligation, December 31	\$ 3,458	\$ 262	\$ 3,720	\$ 3,661	\$ 268	\$ 3,929
Change in plan assets:						
Fair value of plan assets, January 1	\$ 3,301	\$ —	\$ 3,301	\$ 3,243	\$ —	\$ 3,243
Administrative expense	(1)	—	(1)	—	—	—
Interest income on plan assets	105	—	105	110	—	110
Return on plan assets (excluding amounts included in net interest expense)	(156)	—	(156)	116	—	116
Employer contributions	127	15	142	80	11	91
Benefits paid	(180)	(15)	(195)	(159)	(11)	(170)
Settlement losses (gains) ⁽¹⁾	—	—	—	(80)	—	(80)
Foreign exchange rate movement	57	—	57	(9)	—	(9)
Fair value of plan assets, December 31	\$ 3,253	\$ —	\$ 3,253	\$ 3,301	\$ —	\$ 3,301
Amounts recognized on Statement of Financial Position:						
Fair value of plan assets	\$ 3,253	\$ —	\$ 3,253	\$ 3,301	\$ —	\$ 3,301
Defined benefit (obligation)	(3,458)	(262)	(3,720)	(3,661)	(268)	(3,929)
Net recognized (liability) asset, December 31	\$ (205)	\$ (262)	\$ (467)	\$ (360)	\$ (268)	\$ (628)
Components of net benefit expense recognized:						
Current service cost	\$ 54	\$ 5	\$ 59	\$ 47	\$ 3	\$ 50
Administrative expense	1	—	1	—	—	—
Net interest expense (income)	13	9	22	12	10	22
Settlement losses (gains) ⁽¹⁾	—	—	—	(6)	—	(6)
Plan amendments	(1)	—	(1)	(2)	—	(2)
Other long-term employee benefit losses (gains)	—	(3)	(3)	—	4	4
Net benefit expense	\$ 67	\$ 11	\$ 78	\$ 51	\$ 17	\$ 68
Remeasurement of net recognized (liability) asset:						
Return on plan assets (excluding amounts included in net interest expense)	\$ (156)	\$ —	\$ (156)	\$ 116	\$ —	\$ 116
Actuarial gains (losses) arising from changes in demographic assumptions	7	(2)	5	2	1	3
Actuarial gains (losses) arising from changes in financial assumptions	241	8	249	(161)	(11)	(172)
Actuarial gains (losses) arising from experience adjustments	5	2	7	(50)	5	(45)
Foreign exchange rate movement	(2)	(2)	(4)	6	1	7
Components of defined benefit costs recognized in Other comprehensive income (loss)	\$ 95	\$ 6	\$ 101	\$ (87)	\$ (4)	\$ (91)

(1) In 2017, the Company terminated and completely settled the defined benefit pension plan of a U.S. subsidiary within the SLF Asset Management segment.

25.C Principal Assumptions for Significant Plans

	2018			2017		
	Canada %	U.K. %	U.S. %	Canada %	U.K. %	U.S. %
To determine defined benefit obligation at end of year:						
Discount rate for pension plans	3.60	2.85	4.40	3.40	2.30	3.70
Rate of compensation increase	3.00	n/a	n/a	3.10	n/a	n/a
Pension increases	0.00-0.15	3.15	n/a	0.00-0.15	3.50	n/a
To determine net benefit expense for year:						
Discount rate for pension plans	3.40	2.30	3.70	3.70	2.55	4.25
Rate of compensation increase	3.10	n/a	n/a	3.00	n/a	n/a
Pension increases	0.00-0.15	3.50	n/a	0.00-0.15	3.55	n/a
Health care trend rates:						
Initial health care trend rate	5.42	n/a	6.50	5.47	n/a	6.50
Ultimate health care trend rate	4.50	n/a	5.00	4.50	n/a	5.00
Year ultimate health care trend rate reached	2030	n/a	2023	2030	n/a	2023

	2018			2017		
	Canada	U.K.	U.S.	Canada	U.K.	U.S.
Mortality rates:						
Life expectancy (in years) for individuals currently at age 65:						
Male	23	24	23	22	24	23
Female	25	25	24	25	26	24
Life expectancy (in years) at 65 for individuals currently at age 45:						
Male	24	25	24	24	26	24
Female	26	28	26	25	29	26
Average duration (in years) of pension obligation	17.3	16.9	12.2	17.1	19.0	13.3

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, 2018. 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⁾ :		
1% decrease	\$ 644	\$ 33
1% increase	\$ (500)	\$ (28)
Rate of compensation increase assumption:		
1% decrease	\$ (75)	n/a
1% increase	\$ 78	n/a
Health care trend rate assumption:		
1% decrease	n/a	\$ (13)
1% increase	n/a	\$ 15
Mortality rates ⁽²⁾ :		
10% decrease	\$ 89	\$ 6

(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:

	2018	2017
Equity investments	3%	3%
Fixed income investments	76%	86%
Real estate investments	8%	7%
Qualifying insurance contract	9%	—
Other	4%	4%
Total composition of fair value of plan assets	100%	100%

The fair value of our equity investments in 2018 and 2017 are consistent with Level 1 or Level 2 fair value hierarchy. In 2018, 2% of our fixed income investments (2% in 2017) are determined based on valuation techniques consistent with Level 1 of the 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 2018, the risk in our U.K. pension plan was reduced through a buy-in insurance contract, 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	\$ 118	\$ 16	\$ 134

Expected Future Benefit Payments

	2019	2020	2021	2022	2023	2024 to 2028
Pension	\$ 160	\$ 168	\$ 175	\$ 183	\$ 190	\$ 1,022
Post-retirement	16	16	16	17	17	92
Total	\$ 176	\$ 184	\$ 191	\$ 200	\$ 207	\$ 1,114

25.G Defined Contribution Plans

We expensed \$120 in 2018 (\$109 for 2017) with respect to defined contribution plans.

26. Earnings (Loss) Per Share

Details of the calculation of the net income (loss) and the weighted average number of shares used in the earnings per share computations are as follows:

For the years ended December 31,	2018	2017
Common shareholders' net income (loss) for basic earnings per share	\$ 2,522	\$ 2,149
Add: increase in income due to convertible instruments ⁽¹⁾	10	10
Common shareholders' net income (loss) on a diluted basis	\$ 2,532	\$ 2,159
Weighted average number of common shares outstanding for basic earnings per share (in millions)	606	613
Add: dilutive impact of stock options ⁽²⁾ (in millions)	1	1
Add: dilutive impact of convertible instruments ⁽¹⁾ (in millions)	4	4
Weighted average number of common shares outstanding on a diluted basis (in millions)	611	618
Basic earnings (loss) per share	\$ 4.16	\$ 3.51
Diluted earnings (loss) per share	\$ 4.14	\$ 3.49

(1) The convertible instruments are the SLEECs B issued by Sun Life Capital Trust.

(2) Excludes the impact of 1 million stock options for the year ended December 31, 2018 (nil for the year ended December 31, 2017) because these stock options were antidilutive for the period.

27. Accumulated Other Comprehensive Income (Loss)

Changes in accumulated other comprehensive income (loss), net of taxes, are as follows:

For the years ended December 31,	2018			2017			
	Balance, beginning of period	Other comprehensive income (loss)	Balance, end of period	Balance, beginning of period	Other comprehensive income (loss)	Other	Balance, end of period
Items that may be reclassified subsequently to income:							
Unrealized foreign currency translation gains (losses), net of hedging activities	\$ 1,012	\$ 911	\$ 1,923	\$ 1,749	\$ (737)	\$ —	\$ 1,012
Unrealized gains (losses) on available-for-sale assets	346	(402)	(56)	211	135	—	346
Unrealized gains (losses) on cash flow hedges	(11)	(10)	(21)	(6)	(5)	—	(11)
Share of other comprehensive income (loss) in joint ventures and associates	(31)	7	(24)	—	(31)	—	(31)
Items that will not be reclassified subsequently to income:							
Remeasurement of defined benefit plans	(347)	84	(263)	(291)	(69)	13 ⁽¹⁾	(347)
Revaluation surplus on transfers to investment properties	145	—	145	6	139	—	145
Total	\$ 1,114	\$ 590	\$ 1,704	\$ 1,669	\$ (568)	\$ 13	\$ 1,114
Total attributable to:							
Participating policyholders	\$ 9	\$ 5	\$ 14	\$ 16	\$ (7)	\$ —	\$ 9
Shareholders	1,105	585	1,690	1,653	(561)	13	1,105
Total	\$ 1,114	\$ 590	\$ 1,704	\$ 1,669	\$ (568)	\$ 13	\$ 1,114

(1) During 2017, the Company transferred cumulative remeasurement losses of \$13 from accumulated other comprehensive income (loss) to retained earnings as a result of the termination and complete settlement of the defined benefit pension plan of a U.S. subsidiary within the SLF Asset Management segment.

Sources of earnings

The following is provided in accordance with the OSFI guideline requiring Sources of Earnings (SOE) disclosure. SOE is a non-IFRS (International Financial Reporting Standard) 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 inforce business

The portion of the consolidated pre-tax net income on business inforce 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. For example, new business losses in individual life insurance would emerge where valuation margins and acquisition expenses are relatively high.

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.

Management actions and changes in assumptions

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.

For the Year Ended December 31, 2018 (in millions of Canadian dollars)	SLF Canada	SLF U.S.	SLF Asset Mgmt	SLF Asia	Corporate	Total
Expected Profit on Inforce Business	882	451	1,264	507	(106)	2,998
Impact of New Business	108	5	—	(98)	—	15
Experience Gains and Losses	424	(7)	—	(17)	(46)	354
Management Actions and Changes in Assumptions	31	(498)	—	76	145	(246)
Other	(1)	(51)	(71)	(14)	(13)	(150)
Earnings on Operations (pre-tax)	1,444	(100)	1,193	454	(20)	2,971
Earnings on Surplus	127	98	—	164	151	540
Earnings before Income Taxes	1,571	(2)	1,193	618	131	3,511
Income Taxes	(308)	19	(284)	(51)	27	(597)
Earnings before Non-controlling Interests, Participating Policyholders' Net Income and Preferred Share Dividends	1,263	17	909	567	158	2,914
Less:						
Non-controlling Interests	—	—	—	—	—	—
Participating Policyholders' Net Income	321	(35)	—	12	—	298
Preferred Share Dividends	—	—	—	—	94	94
Common Shareholders' Net Income (Loss)	942	52	909	555	64	2,522
For the Year Ended December 31, 2017	SLF Canada	SLF U.S.	SLF Asset Mgmt	SLF Asia	Corporate	Total
Expected Profit on Inforce Business	840	407	1,256	435	(132)	2,806
Impact of New Business	133	(11)	—	(81)	—	41
Experience Gains and Losses	97	(79)	—	70	30	118
Management Actions and Changes in Assumptions	164	(835)	—	284	62	(325)
Other	(16)	(105)	(150)	—	(76)	(347)
Earnings on Operations (pre-tax)	1,218	(623)	1,106	708	(116)	2,293
Earnings on Surplus	155	91	—	160	90	496
Earnings before Income Taxes	1,373	(532)	1,106	868	(26)	2,789
Income Taxes	(197)	392	(453)	(62)	18	(302)
Earnings before Non-controlling Interests, Participating Policyholders' Net Income and Preferred Share Dividends	1,176	(140)	653	806	(8)	2,487
Less:						
Non-controlling Interests	—	—	—	—	—	—
Participating Policyholders' Net Income	213	4	—	28	—	245
Preferred Share Dividends	—	—	—	—	93	93
Common Shareholders' Net Income (Loss)	963	(144)	653	778	(101)	2,149

Analysis of results

For the year ended December 31, 2018, the pre-tax expected profit on inforce business of \$2,998 million was \$192 million higher than 2017. The increase in expected profit was largely driven by business growth in Canada, US, and Asia, as well as currency impacts from the change in the Canadian dollar relative to foreign currencies.

The new business gains in 2018 was \$15 million compared to \$41 million a year ago. The change was mainly due to sales level in Canada and sales mix in Asia.

The 2018 experience gain of \$354 million pre-tax was primarily due to favourable Participating policy experience in Canada, interest on par seed capital in Canada and the U.S., favourable morbidity experience in the U.S. Group Benefits business, positive net credit experience and gains from investing activity on insurance contract liabilities. This is partially offset by unfavourable equity market impacts.

For the year 2018, management actions and changes in assumptions resulted in a pre-tax loss of \$246 million. In Canada, the pre-tax gain of \$31 million reflected favourable changes to mortality assumptions in Group Retirement Services, the favourable change to provision in the Canada participating account, offset partially by model enhancement and methodology changes. In the U.S., the pre-tax loss of \$498 million reflected updates to policyholder assumptions and the strengthening of reinsurance provision, offset partially by the favourable change to the provisions in the U.S. participating account. In Asia, the pre-tax gain of \$76 million reflected favourable mortality, offset partially by updates to policyholder assumptions, both items were in Asia International business. In Corporate, the pre-tax gain of \$145 million reflected favourable mortality in U.K.

Other in 2018 resulted in a pre-tax loss of \$150 million. In the U.S., the loss of \$51 million was due to the impact of integration costs related to the U.S. employee benefits businesses acquired. In the Asset Management pillar, the loss of \$71 million was related to fair value adjustments on MFS's share-based payment awards. In Asia, the loss of \$14 million mainly pertains to a distribution arrangement in India for asset management. In Corporate, the loss of \$13 million was primarily due to the restructuring charge related to actions to enhance business processes and organizational structures and capabilities.

Net pre-tax earnings on surplus of \$540 million in 2018 was \$44 million higher than a year ago. The increase was mainly due to increasing investment income from Cash & Short-term and Bonds, partially offset by weaker Available-for-Sale asset gains.

The 2018 Sources of Earnings has been changed to reflect the International business move to Asia from the U.S. In addition, expected profit on inforce business and impact of new business reflect a change in presentation for U.S. employee benefits business. Amounts in expected profit on inforce business and impact of new business in 2017 was previously \$467 million and \$(71) million for U.S. excluding International, and \$2,866 million and \$(19) million for the Total Company, respectively, with a net change of \$60 million between the two categories.

Board of Directors and Executive Team

Board of Directors

All directors of Sun Life Financial Inc. are also directors of Sun Life Assurance Company of Canada. The Board has determined that all directors other than Dean A. Connor are independent directors.

William D. Anderson, FCPA, FCA
Chairman, Sun Life Financial Inc.

Ashok K. Gupta⁽³⁾⁽⁴⁾
Corporate Director

James M. Peck⁽³⁾⁽⁴⁾
President & Chief Executive Officer,
TransUnion

Dean A. Connor
President & Chief Executive Officer,
Sun Life Financial Inc.

M. Marianne Harris⁽³⁾⁽⁴⁾
Corporate Director

Scott F. Powers⁽²⁾⁽³⁾
Corporate Director

Stephanie L. Coyles⁽¹⁾⁽⁴⁾
Corporate Director

Sara Grootwassink Lewis, CPA, CFA⁽¹⁾⁽²⁾
Corporate Director

Hugh D. Segal, OC, OONT, CD⁽¹⁾⁽²⁾
Principal of Massey College,
University of Toronto

Martin J. G. Glynn⁽³⁾⁽⁴⁾
Corporate Director

Christopher J. McCormick⁽²⁾⁽³⁾
Corporate Director

Barbara G. Stymiest, FCPA, FCA⁽¹⁾⁽⁴⁾
Corporate Director

(1) Member of Audit Committee

(2) Member of Governance, Nomination & Investment Committee

(3) Member of Management Resources Committee

(4) Member of Risk & Conduct Review Committee

Additional information on the directors and a report on the Board's corporate governance processes and practices are available in the 2019 Management Information Circular, on sunlife.com and on www.sedar.com.

Executive Team

Dean A. Connor
President & Chief Executive Officer

Daniel R. Fishbein
President, SLF U.S.

Helena J. Pagano
Executive Vice-President,
Chief Human Resources &
Communications Officer

Claude A. Accum
President, SLF Asia

Colm J. Freyne
Executive Vice-President &
Chief Risk Officer

Stephen C. Peacher
President, Sun Life
Investment Management

Kevin P. Dougherty
Executive Vice-President,
Innovation & Partnerships

Jacques Goulet
President, SLF Canada

Mark S. Saunders
Executive Vice-President &
Chief Information Officer

Linda M. Dougherty
Executive Vice-President,
Corporate Strategy &
Global Marketing

Melissa J. Kennedy
Executive Vice-President,
Chief Legal Officer & Public Affairs

Kevin D. Strain
Executive Vice-President &
Chief Financial Officer

Sun Life Financial Inc. – Subsidiaries and Associates

The following table lists the direct and indirect subsidiaries of Sun Life Financial Inc. ("SLF Inc.") as at December 31, 2018 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 SLF Inc. directly or indirectly holds 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.

Company	Jurisdiction of Formation	Book Value of Shares Owned	Per cent of Voting Shares Owned by SLF Inc.
Sun Life Assurance Company of Canada	Canada	20,354	100%
Annemasse Boishriand Holdings L.P.	Manitoba, Canada		100%
BestServe Financial Limited	Hong Kong	156	100%
Country Lane Enterprises Ltd.	British Columbia, Canada		100%
Dental Health Alliance, L.L.C.	Delaware, USA		100%
Denticare of Alabama, Inc.	Alabama, USA		100%
PT. Sun Life Financial Indonesia	Indonesia	175	100%
PT. Sun Life Indonesia Services	Indonesia		100%
SL Investment US-RE Holdings 2009-1, 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	932	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%
Sun 521 Morehead, LLC	Delaware, USA		100%
Sun Life (India) AMC Investments Inc.	Canada		100%
Aditya Birla Sun Life AMC Limited	India		49%
Sun Life (Luxembourg) Finance No. 2 SARL	Luxembourg		100%
Sun Life and Health Insurance Company (U.S.)	Michigan, USA	485	100%
Sun Life Capital Trust	Ontario, Canada		100%
Sun Life Capital Trust II	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 Advisory Inc.	Canada		100%
Sun Life Financial Asia Services Limited	Hong Kong		100%
Sun Life Financial Distributors (Bermuda) Ltd.	Bermuda		100%
Sun Life Financial Distributors (Canada) Inc.	Canada	11	100%
Sun Life Financial International Holdings (MC), LLC	Delaware, USA		100%
Sun Life Financial Investment Services (Canada) Inc.	Canada	17	100%
Sun Life Financial Investments (Bermuda) Ltd.	Bermuda		100%
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 of Canada (Philippines), Inc.	Philippines	1,057	100%
Sun Life Asset Management Company, Inc.	Philippines		100%
Sun Life Financial Plans, Inc.	Philippines		100%
Sun Life Financial Trust Inc.	Canada	139	100%
Sun Life Hong Kong Limited	Bermuda	1,970	100%
Sun Life Asset Management (HK) Limited	Hong Kong		100%
Sun Life Financial Holdings (HK) Limited	Hong Kong		100%
Sun Life Hong Kong Services Limited	Hong Kong		100%
Sun Life Investment Holdings (HK) Limited	Hong Kong		100%
Sun Life Management Holdings (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%

Company	Jurisdiction of Formation	Book Value of Shares Owned	Per cent of Voting Shares Owned by SLF Inc.
Sun Life Insurance (Canada) Limited	Canada	1,900	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%
Sun Life Malaysia Assurance Berhad	Malaysia		49%
Sun Life Malaysia Takaful Berhad	Malaysia		49%
Sun Life Vietnam Insurance Company Limited	Vietnam	119	100%
Solidify Software, LLC	Kansas, USA		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 Michigan, Inc.	Michigan, 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%
United Dental Care of Utah, Inc.	Utah, USA		100%
10851744 Canada Inc.	Canada		100%
10851779 Canada Inc.	Canada		100%
11096800 Canada Inc.	Canada		100%
6965083 Canada Inc.	Canada		100%
7037457 Canada Inc.	Canada		100%
7647913 Canada Inc.	Canada		100%
7647930 Canada Inc.	Canada		100%
Sun Life Global Investments Inc.	Canada		100%
BK Canada Holdings Inc.	Canada		100%
Bentall Kennedy (Canada) G.P. Ltd.	Canada		100%
Bentall Kennedy (Canada) Limited Partnership	British Columbia, Canada	222	100%
Bentall Kennedy Luxembourg Holdings Ltd.	Canada		100%
Bentall Property Services (Ontario) Ltd.	Ontario, Canada		100%
BK Prime GP Holdco Inc.	Canada		100%
BKC Capital Inc.	Canada		100%
BKC Condominium Services Inc.	Canada		100%
BKCG Services Ltd.	Canada		100%
BKCP Residential G.P. LTD.	Canada		100%
BKCP Residential Limited Partnership	Manitoba, Canada		100%
SynchroSERV Inc.	Canada		100%
SynchroSERV Limited Partnership	British Columbia, Canada		100%
0936543 BC Ltd.	British Columbia, Canada		100%
Sun Life 2007-1 Financing Corp.	Canada		100%
Sun Life (Luxembourg) Finance No. 1 SARL	Luxembourg		100%
Sun Life Assurance Company of Canada - U.S. Operations Holdings, Inc.	Delaware, USA		100%
SL Investment 2007-1 ULC	Nova Scotia, Canada		100%
Sun Life Financial (Bermuda) Reinsurance Ltd.	Bermuda		100%
Sun Life Financial (Japan), Inc.	Delaware, USA		100%
Sun Life Financial (U.S.) Holdings, Inc.	Delaware, USA		100%
Sun Life Financial (U.S.) Finance, Inc.	Delaware, USA		100%
Sun Life Financial (U.S.) Investments LLC	Delaware, USA		100%
Sun Life Institutional Distributors (U.S.) LLC	Delaware, USA	1	100%
Sun Life Investment Management U.S., Inc.	Delaware, USA		100%
Bentall Kennedy (U.S.) G.P. LLC	Washington, USA		100%
Bentall Kennedy (U.S.) Limited Partnership	Washington, USA	335	100%
Bentall Kennedy Holdings LLC	Delaware, USA		100%
Rushmore Partners LLC	Delaware, USA		100%

Company	Jurisdiction of Formation	Book Value of Shares Owned	Per cent of Voting Shares Owned by SLF Inc.
NewTower Trust Company	Maryland, USA		100%
NewTower Management GP LLC	Delaware, USA		100%
NewTower Management LLC	Delaware, USA		100%
BKUS Institutional Logistics Coinvestment LLC	California, USA		100%
Kennedy Management Investors LLC - Series VII	Delaware, USA		52.19%
Kennedy Management Investors LLC - Series IX	Delaware, USA		67.75%
Prime Advisors, Inc.	Washington, USA	76	100%
Ryan Labs Asset Management Inc.	Delaware, USA	57	100%
Ryan Labs Fund Management, LLC	Delaware, USA		100%
Ryan Labs TIPS Partners, L.P.	Delaware, USA		100%
Sun Life of Canada (U.S.) Financial Services Holdings, Inc.	Delaware, USA		99.91%
Massachusetts Financial Services Company	Delaware, USA	678	95.17%
MFS Development Funds, LLC	Delaware, USA		95.17%
MFS Exchange LLC	Delaware, USA		95.17%
MFS Fund Distributors, Inc.	Delaware, USA		95.17%
MFS Heritage Trust Company	New Hampshire, USA		95.17%
MFS Institutional Advisors, Inc.	Delaware, USA		95.17%
3060097 Nova Scotia Company	Nova Scotia, Canada		95.17%
MFS Investment Management Canada Limited	Canada		95.17%
MFS International Ltd.	Bermuda		95.17%
MFS do Brasil Desenvolvimento de Mercado Ltda.	Brazil		95.17%
MFS International (Chile) SpA	Chile		95.17%
MFS International (Hong Kong) Limited	Hong Kong		95.17%
MFS International Holdings Pty Ltd	Sydney, Australia		95.17%
MFS Financial Management Consulting (Shanghai) Co., Ltd.	Shanghai, People's Republic of China		95.17%
MFS International (U.K.) Limited	England and Wales		95.17%
MFS International Switzerland GmbH	Switzerland		95.17%
MFS International Australia Pty Ltd	Victoria, Australia		95.17%
MFS International Singapore Pte. Ltd.	Singapore		95.17%
MFS Investment Management Company (LUX) S.à.r.l.	Luxembourg		95.17%
MFS Investment Management K.K.	Japan		95.17%
MFS Service Center, Inc.	Delaware, USA		95.17%
Sun Life of Canada (U.S.) Holdings, Inc.	Delaware, USA		100%
DailyFeats, Inc.	Delaware, USA		100%
Disability Reinsurance Management Services, Inc.	Delaware, USA		100%
Independence Life and Annuity Company	Delaware, USA	73	100%
Sun Life Financial (U.S.) Reinsurance Company II	Delaware, USA		100%
Professional Insurance Company	Texas, USA	98	100%
Sun Canada Financial Co.	Delaware, USA		100%
Sun Life Administrators (U.S.), Inc.	Delaware, USA		100%
Sun Life Financial (U.S.) Delaware Finance, LLC	Delaware, USA		100%
Sun Life Financial (U.S.) Reinsurance Company	Vermont, USA		100%
Sun Life Financial (U.S.) Services Company, Inc.	Delaware, USA	7	100%
The Premier Dental Group, Inc.	Minnesota, USA		100%
Landmark Dental Alliance, Inc.	Minnesota, USA		100%
Vuzion, Inc.	Minnesota, USA		100%
Sun Life Financial Distributors, Inc.	Delaware, USA		100%
Sun Life Institutional Investments (U.S.) LLC	Delaware, USA		100%
Sun Life Global Investments (Canada) Inc.	Canada	100	100%
Sun Life Institutional Investments (Canada) Inc.	Canada	14	100%
SL Finance 2007-1, Inc.	Delaware, USA		100%
Sun Life Assurance Company of Canada (Barbados) Limited	Barbados		100%
Sun Life of Canada International Assurance Limited	Barbados		100%
6324983 Canada Inc.	Canada		100%

Major Offices

The following is contact information for Sun Life Financial's major offices and affiliates around the world. For inquiries and customer service, please contact the appropriate office in your area.

Sun Life Financial Inc.

Corporate Office
1 York Street
Toronto, Ontario
Canada M5J 0B6
Website: sunlife.com

Sun Life Financial Canada

Canadian Headquarters
227 King Street South
Waterloo, Ontario
Canada N2J 4C5
Tel: 519-888-2290
Clients: 1-877-SUN-LIFE /
1-877-786-5433
Website: sunlife.ca

Montreal Office

1155 Metcalfe Street
Montreal, Quebec
Canada H3B 2V9
Tel: 514-866-6411
Website: sunlife.ca

Sun Life Financial U.S.

One Sun Life Executive Park
Wellesley Hills, Massachusetts
USA 02481
Clients: 1-800-SUN-LIFE /
1-800-786-5433
Website: sunlife.com/us

Sun Life Financial International

Washington House, 3rd Floor
16 Church Street
Hamilton HM 11
Bermuda
Tel: 441-294-6050 / 1-800-368-9428
Website: sunlife.com/international

Sun Life Financial U.K.

Matrix House
Basing View, Basingstoke
Hampshire
United Kingdom RG21 4DZ
Clients: 0345-072-0223
Website: sloc.co.uk

Sun Life Financial Asia

*Sun Life Financial Asia
Regional Office*
Level 14, Citiplaza 3
14 Taikoo Wan Road
Taikoo Shing, Hong Kong
Tel: (852) 2918-3888

China

Sun Life Everbright Life Insurance
Company Limited
Tianjin International Building, 37th Floor
75 Nanjing Road
Tianjin, China 300050
Tel: (8622) 2339-1188
Website: sunlife-everbright.com

Sun Life Assurance Company of Canada
Beijing Representative Office
Tel: (8610) 8590-6500

Hong Kong

Sun Life Hong Kong Limited
10/F, Sun Life Tower
The Gateway
15 Canton Road
Kowloon, Hong Kong
Tel: (852) 2103-8888
Clients: (852) 2103-8928
Website: sunlife.com.hk

India

Birla Sun Life Insurance
Company Limited
One India Bulls Centre, Tower 1
16th Floor
Jupiter Mill Compound
841, Senapati Bapat Marg
Elphinstone Road
Mumbai, India 400 013
Tel: 1-800-270-7000 in India
91-22-6691-7777 outside India
Website: birlasunlife.com

Birla Sun Life Asset Management
Company Limited
One India Bulls Centre, Tower 1
17th Floor
Jupiter Mill Compound
841, Senapati Bapat Marg
Elphinstone Road
Mumbai, India 400 013
Tel: 91-22-4356-8000
Website: birlasunlife.com

Sun Life Assurance Company of Canada
India Representative Office
Mumbai
Tel: 91-22-4356-9121

Indonesia

PT Sun Life Financial Indonesia
Menara Sun Life Lantai 11
Jl Dr Ide Anak Agung Gde Agung Blok 6.3
Kawasan Mega Kuningan
Jakarta, Selatan 12950
Indonesia
Tel: (6221) 5289-0000
Clients: (6221) 1500-786
Website: sunlife.co.id

Malaysia

Sun Life Malaysia Assurance Berhad
Sun Life Malaysia Takaful Berhad
Level 11, 338 Jalan Tuanku Abdul Rahman
50100 Kuala Lumpur
Malaysia
Tel: (603) 2612-3600
Website: sunlifemalaysia.com

Philippines

Sun Life Financial Philippines
Sun Life Centre
5th Avenue cor. Rizal Drive
Bonifacio Global City
Taguig, Metro Manila
Philippines
Clients: (632) 555-8888
Website: sunlife.com.ph

Sun Life Grepa Financial, Inc.
6/F Grepalife Building
221 Sen. Gil J. Puyat Avenue
Makati City 1203
Philippines
Tel: (632) 866-6800, 849-9633
Website: sunlifegrepa.com

Vietnam

Sun Life Vietnam Insurance
Company Limited
Vietcombank Tower, 29th Floor
5 Me Linh Square, District 1
Ho Chi Minh City, Vietnam
Tel: (848) 6298-5888
Website: sunlife.com.vn

MFS Investment Management

111 Huntington Avenue
Boston, Massachusetts
USA 02199
Tel: 617-954-5000
Toll-free in Canada and U.S.:
1-800-343-2829
Website: mfs.com

Sun Life Global Investments (Canada) Inc.

1 York Street
Toronto, Ontario
Canada M5J 0B6
Tel: 1-877-344-1434
Website: sunlifeglobalinvestments.com

Sun Life Investment Management

Sun Life Institutional Investments (Canada) Inc.

1 York Street, Suite 1100
Toronto, Ontario
Canada M5J 0B6
Email: info@sunlifeinvestmentmanagement.com
Website: sunlifeinvestmentmanagement.com

Bentall Kennedy

1 York Street, Suite 1100
Toronto, Ontario
Canada M5J 0B6
Tel: 416-681-3400
Website: bentallkennedy.com

Prime Advisors, Inc.

Redmond Ridge Corporate Center
22635 NE Marketplace Drive, Suite 160
Redmond, Washington
USA 98053
Tel: 425-202-2000
Website: primeadvisors.com

Ryan Labs Asset Management Inc.

500 Fifth Avenue, Suite 2520
New York, New York
USA 10110
Tel: 212-635-2300
Website: ryanlabs.com

CORPORATE AND SHAREHOLDER INFORMATION

CORPORATE OFFICE

Sun Life Financial Inc.
1 York Street
Toronto, Ontario
Canada M5J 0B6
Tel: 416-979-9966
Website: www.sunlife.com

INVESTOR RELATIONS

For financial analysts, portfolio managers and institutional investors requiring information, please contact:
Investor Relations
Fax: 416-979-4080
Email: investor.relations@sunlife.com
Please note that financial information can also be obtained from www.sunlife.com.

TRANSFER AGENT

For information about your shareholdings, dividends, change in share registration or address, estate transfers, lost certificates, or to advise of duplicate mailings, please contact the Transfer Agent in the country where you reside. If you do not live in any of the countries listed, please contact the Canadian Transfer Agent.

CANADA

AST Trust Company (Canada)
P.O. Box 700
Station B
Montreal, Quebec
Canada H3B 3K3
Within North America:
Tel: 1-877-224-1760
Outside of North America:
Tel: 416-682-3865
Fax: 1-888-249-6189
Email: sunlifeinquiries@astfinancial.com
Website: www.astfinancial.com/ca-en
Shareholders can view their account details using AST Trust Company (Canada)'s Internet service, Investor Central Register at
<https://ca.astfinancial.com/InvestorCentral>

UNITED STATES

American Stock Transfer & Trust
Company, LLC
6201 15th Ave.
Brooklyn, NY 11219
Tel: 1-877-224-1760
Email: sunlifeinquiries@astfinancial.com

UNITED KINGDOM

Link Asset Services
34 Beckenham Road
Beckenham, Kent
United Kingdom BR3 4TU
Tel: +44 (0) 345-602-1587
Email: enquiries@linkgroup.co.uk

PHILIPPINES

Rizal Commercial Banking Corporation (RCBC)
RCBC Stock Transfer Processing Section
Ground Floor, West Wing,
GPL (Grepalife) Building,
221 Senator Gil Puyat Avenue
Makati City, 1200,
Philippines
From Metro Manila: 632-318-8567
From the Provinces: 1-800-1-888-2422
Email: rcbcstocktransfer@rcbc.com

HONG KONG

Computershare Hong Kong Investor Services Limited
17M Floor, Hopewell Centre
183 Queen's Road East
Wanchai, Hong Kong
Tel: 852-2862-8555
Email: hkinfo@computershare.com.hk

SHAREHOLDER SERVICES

For shareholder account inquiries, please contact the Transfer Agent in the country where you reside, or Shareholder Services:
Fax: 416-598-3121
English Email:
shareholderservices@sunlife.com
French Email:
servicesauxactionnaires@sunlife.com

2019 DIVIDEND DATES

Common Shares

RECORD DATES

March 1, 2019
May 29, 2019*
August 28, 2019*
November 27, 2019*

PAYMENT DATES

March 29, 2019
June 28, 2019*
September 30, 2019*
December 31, 2019*

*Subject to approval by the Board of Directors

DIRECT DEPOSIT OF DIVIDENDS

Common shareholders residing in Canada or the U.S. may have their dividend payments deposited directly into their bank account.

The Request for Electronic Payment of Dividends Form is available for downloading from the AST Trust Company (Canada) website, www.astfinancial.com/ca-en, or you can contact AST Trust Company (Canada) to have a form sent to you.

CANADIAN DIVIDEND REINVESTMENT AND SHARE PURCHASE PLAN

Canadian-resident common shareholders can enroll in the Dividend Reinvestment and Share Purchase Plan. For details visit our website at sunlife.com or contact the Plan Agent, AST Trust Company (Canada) at sunlifeinquiries@astfinancial.com

STOCK EXCHANGE LISTINGS

Sun Life Financial Inc. common shares are listed on the Toronto (TSX), New York (NYSE) and Philippine (PSE) stock exchanges. Ticker Symbol: SLF

Sun Life Financial Inc. Class A Preferred Shares are listed on the Toronto Stock Exchange (TSX).

Ticker Symbols:

Series 1 – SLF.PR.A	Series 8R – SLF.PR.G
Series 2 – SLF.PR.B	Series 9QR – SLF.PR.J
Series 3 – SLF.PR.C	Series 10R – SLF.PR.H
Series 4 – SLF.PR.D	Series 11QR – SLF.PR.K
Series 5 – SLF.PR.E	Series 12R – SLF.PR.I

2019 ANNUAL MEETING

The Annual Meeting will be held on:
Date: Thursday, May 9, 2019
Time: 9:00 a.m.
Place: Sun Life Financial Inc.
1 York Street
35th Floor
Toronto, Ontario
Canada M5J 0B6

NORMAL COURSE ISSUER BID

A copy of the Notice of Intention to commence the normal course issuer bid is available without charge by contacting the Corporate Secretary's Department at shareholderservices@sunlife.com.

FOR INFORMATION ABOUT THE SUN LIFE FINANCIAL GROUP OF COMPANIES, CORPORATE NEWS AND FINANCIAL RESULTS, PLEASE VISIT SUNLIFE.COM.



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1 YORK STREET
TORONTO, ON CANADA M5J 0B6

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