

1H19 Analyst Pack

Providing our
customers with
financial security
for retirement



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2019 Interim Financial Report

can be downloaded from
Challenger's online
Shareholder Centre

› challenger.com.au/shareholder

Investor Relations

Stuart Kingham
Head of Investor Relations
+61 2 9994 7125
skingham@challenger.com.au

Important note

Information presented in the 1H19 Analyst Pack is presented on an operational basis (rather than statutory) to reflect a management view of the business. Challenger Limited (ACN 106 842 371) also provides statutory reporting as prescribed under the *Corporations Act 2001*. The 2019 Interim Financial Report is available from Challenger's shareholder centre at:

› www.challenger.com.au/shareholder

The 1H19 Analyst Pack is not audited. The statutory net profit after tax as disclosed in the consolidated profit and loss (page 10) has been prepared in accordance with Australian Accounting Standards and the *Corporations Act 2001*. Challenger's external auditor, Ernst & Young, has reviewed the statutory net profit after tax as disclosed in the consolidated profit and loss. Normalised net profit after tax, as disclosed in the consolidated profit and loss (page 10), has been prepared in accordance with a normalised profit framework. The normalised profit framework is disclosed in the Operating Financial Review in the Directors' Report in the 2019 Interim Financial Report. The normalised net profit after tax has been subject to a review performed by Ernst & Young.

Any forward-looking statements included in this document are by nature subject to significant uncertainties, risks and contingencies, many of which are outside the control of, and are unknown to, Challenger, so that actual results or events may vary from those forward-looking statements, and the assumptions on which they are based.

Past performance is not an indicator of future performance. While Challenger has sought to ensure that information is accurate by undertaking a review process, it makes no representation or warranty as to the accuracy or completeness of any information or statement in this document. In particular, information and statements in this document do not constitute investment advice or a recommendation on any matter, and should not be relied upon.

1H19 financial highlights¹

Group	<ul style="list-style-type: none"> • Normalised net profit before tax² \$270m, down 2% • Normalised net profit after tax² \$200m, down 4% • Statutory net profit after tax \$6m (including investment experience of -\$194m), down from \$195m • Normalised EPS³ 33.1 cents per share, down 6% • Statutory EPS 1.0 cents per share • Net income \$405m, down 1% • Expenses \$132m, up 1% • Normalised cost to income ratio increased by 60 bps to 32.7% • Group assets under management \$78.4bn, up 2% • Normalised Return On Equity 15.6% (pre-tax), down 120 bps • Half-year dividend 17.5 cents per share (fully franked), unchanged • Normalised dividend payout ratio 52.9%
Life	<ul style="list-style-type: none"> • Cash Operating Earnings (COE) \$330m, down 2%, due mainly to lower equity distributions • COE margin 3.57%, down 26 bps from 2H18 • Expenses \$52m, down 3% • EBIT⁴ \$278m, down 2% • Total Life sales \$2.7bn, down 18%, reflecting lower Japan and institutional GIR⁵ sales • Total Life book growth \$0.6bn, or 4.2% of opening liabilities • Annuity sales \$2.1bn, down 7%, with domestic sales up 4% and Japan sales down by 55% • Annuity book growth \$0.5bn, or 4.2% of opening liabilities • Average investment assets \$18.3bn, up 11% • Normalised Return On Equity 17.5% (pre-tax), down 150 bps • Prescribed Capital Amount (PCA) ratio 1.54 times, up from 1.53 times at FY18 • Common Equity Tier 1 (CET1) ratio 1.04 times, down from 1.05 times at FY18 • Capital intensity down 1.1% in 1H19 to 13.0%
Funds Management	<ul style="list-style-type: none"> • Net income \$75m, up 4% • Expenses \$49m, up 9% • EBIT \$26m, down 4% • Net flows -\$1.0bn • Funds Under Management (FUM) \$75.0bn, up 2% on 1H18 • Return On Equity 24.4% (pre-tax), down 320 bps

¹ All percentage movements compare 1H19 to the prior corresponding period (1H18) unless otherwise stated.

² Normalised net profit after tax excludes investment experience, being gains and losses on Life's investment assets and policy liabilities and net new business strain; and significant items (refer to pages 50 and 51 for more detail on investment experience).

³ Earnings per share (EPS).

⁴ Earnings before interest and tax (EBIT).

⁵ Guaranteed Index Return (GIR) – refer to page 24 for more detail.

Market overview and outlook

Challenger is an investment management company with a vision to provide its customers with financial security for retirement.

Challenger has two businesses, Life and Funds Management, both providing products for Australia's growing superannuation system, and is expanding into international markets.

Australia's modern superannuation system commenced in 1992 and is now the fourth largest¹ pension system globally, with pension assets having increased by 12% per annum over the past 20 years².

Growth in Australia's superannuation system is underpinned by mandatory contributions, which are scheduled to increase from 9.5% of gross salaries currently to 12.0% by 2025. The superannuation system is forecast to grow from \$2.8 trillion today to over \$10 trillion by 2035³. Growth in the superannuation system is also supported by changing demographics and the Government enhancing the retirement phase of superannuation.

Both Life and Funds Management are expected to benefit from growth in Australia's superannuation system.

Life

Life focuses on the retirement spending phase of superannuation by providing products that convert retirement savings into safe and secure income. Challenger Life is Australia's leading provider of annuities⁴, providing reliable guaranteed⁵ incomes to approximately 75,000 Australian retirees.

The retirement spending phase of superannuation is expected to grow strongly over the next 20 years, driven by demographic changes and maturing of the superannuation system.

The number of Australians over the age of 65, which is Life's target market, is expected to increase by ~60% over the next 20 years⁶.

Reflecting the demographic changes underway, and growth in Australia's superannuation system, the annual transfer from the retirement savings phase of superannuation to the retirement spending phase was estimated to be ~\$60bn⁷ in 2018. Industry annuity sales currently represent less than 5% of the annual transfer to the retirement phase. Lifetime annuity sales represent less than 2% of the annual transfer.

There is growing recognition that retirees need to take a different approach to investing in retirement. As retirees transition from Government-funded age pensions to private pensions, retirees are demanding safe, secure retirement income products that convert savings into income and provide financial security.

The superannuation system is helping Australians build savings for their retirement. Australians now have meaningful superannuation balances when they retire, with the median balance being over \$300,000⁸, despite the system only being in place for half the working life of today's retirees.

There are a range of Government retirement income regulatory reforms currently proposed (refer to page 26 for more detail), designed to enhance the retirement phase and better align it with the overall objective of the superannuation system – to provide income in retirement to substitute or supplement the age pension. These reforms provide a significant opportunity to increase the proportion of retirement savings invested in longevity products, including annuities.

Life is diversifying its range of products and expanding its distribution relationships in Australia and Japan.

In Australia, Life is broadening access by making annuities available via leading investment and administration platforms. Following the launch of Challenger annuities on the BT platform during 1H19, Challenger formed new annuity distribution relationships with speciality platform providers Netwealth and Hub24. Challenger annuities are expected to be available on both the Netwealth and Hub24 platforms during 2H19. Once available, over 70% of Australian financial advisers will have access to Challenger annuities via their primary investment and administration platform.

Challenger has been recognised as a product innovator and has won the Association of Financial Advisers Annuity Provider of the Year for the last ten consecutive years. Challenger is also recognised by 95%⁹ of advisers as the Australian leader in retirement incomes.

The Life business is resilient and well positioned to capture the long-term growth opportunity. Over the short term, the operating environment is challenging due to volatile investment markets and industry disruption impacting wealth managers and the Australian financial advice market.

Volatility in global investment markets increased in 1H19, resulting in investment experience losses on Life's investment portfolio (refer to page 22 for more detail). With the ongoing low interest rate environment and compressed asset premiums, relative value is shifting across different asset classes. Life is responding by making changes to its investment portfolio, reducing the capital intensity across its portfolio and remaining strongly capitalised with a PCA ratio toward the top end of its target range (refer to page 40 for more detail). The increased investment market volatility increases the appeal of guaranteed incomes for retirees and Life's product offering is well positioned for these market conditions.

Life relies on financial advisers, both independent and part of major hubs, to distribute its products. Following the hearings on financial advice at the Royal Commission into Misconduct in the Banking and Financial Services Industry (Royal Commission), there has been reduced customer confidence in retail financial advice and significant disruption across the adviser market. This includes increased adviser churn and reduced acquisition of new clients by financial advisers. While there is a relatively less direct impact from the Royal Commission final report on Challenger and Life's customers are not questioning the quality of its products or services, the disrupted industry environment is impacting Life's sales.

¹ Willis Towers Watson Global Pension Study 2018.

² Australian Prudential Regulation Authority (APRA) Quarterly Superannuation Performance – September 2018.

³ Rice Warner 2017 superannuation projections.

⁴ Strategic Insights – September 2018 – based on annuities in force at 30 September 2018.

⁵ The word 'guaranteed' means payments are guaranteed by Challenger Life Company Limited from the assets of its relevant statutory fund.

⁶ Australian Bureau of Statistics population projections.

⁷ Australian Taxation Office.

⁸ APRA June 2018.

⁹ Market Pulse Adviser Study December 2018.

Life has a strong reputation with adviser trust in the quality of its products and services and is broadening its distribution reach by making its annuities available on platforms targeting the independent financial adviser market.

The Australian Government has been implementing a range of retirement income reforms to help develop the retirement phase of superannuation (refer to page 26 for more detail). While there has been bipartisan support for retirement income reforms over many years, the implementation of these reforms is being impacted by short-term political uncertainty and the federal election cycle. There is broad industry support for increasing focus on the retirement phase and Challenger continues to support constructive public policy settings for retirees.

In Japan, Life commenced an annuity relationship with Mitsui Sumitomo Primary Life Insurance Company Limited (MS Primary), a subsidiary of MS&AD Insurance Group Holdings Inc. (MS&AD), in November 2016. MS Primary is a leading provider of Australian dollar-denominated annuity products in Japan. The relationship with MS Primary provides Challenger with access to Japan's foreign currency annuity market.

Japan has one of the world's most rapidly ageing populations and has a very low domestic interest rate environment, which is making higher returning foreign currency annuities popular.

MS Primary is a key Challenger annuity partner and in recognition of the importance of the relationship, in August 2017 Challenger formed a strategic relationship with its parent MS&AD. The strategic relationship provides access to the Japanese market and broadens Challenger's existing international footprint, while providing opportunities for both MS&AD and Challenger. Through an equity placement and subsequent on-market purchases, MS&AD hold a 10% equity interest in Challenger (as at 6 December 2018).

As Australia's leading provider of annuities, Life is expected to continue to benefit from the long-term growth in Australia's superannuation system and regulatory reforms designed to enhance the retirement phase. Life is also expected to benefit from diversifying its products and distribution through the MS Primary annuity relationship.

Funds Management

Funds Management focuses on the retirement savings phase of superannuation by providing products seeking to deliver superior investment returns. Funds Management is one of Australia's largest¹ active fund managers.

Challenger's Funds Management business is growing faster than the broader funds management market.

Growth in funds under management can be attributed to the strength of Challenger's retail and institutional distribution teams, a market leading business model focused on investor alignment and strong long-term investment performance.

Challenger's Fidante Partners' business model involves taking minority equity interests in separately branded, boutique fund management firms, with Challenger providing the distribution, administration and business support, leaving investment managers to focus on managing investment portfolios.

This strong investor alignment is driving superior long-term investment performance, with 92%² of Funds Management

funds outperforming their benchmark over the past five years. This long-term performance track record is underpinning net flows.

Following the success of Challenger's Fidante Partners business model in Australia, it is being replicated in Europe, providing access to the United Kingdom funds management market, and providing global distribution opportunities for existing Investment managers. As part of its expansion, Fidante Partners Europe is attracting new international boutique managers, with two United States-based boutiques joining Fidante Partners Europe in 2018 and a London-based boutique joining Fidante Europe in January 2019. Funds Management is also expanding its capability into the exchange traded funds market, with the ActiveX series launched in December (refer to page 7 for more detail).

Funds Management also includes Challenger Investment Partners (CIP), an institutional manager that originates and manages fixed income and property assets for leading global and Australian institutions, including Challenger Life. CIP clients benefit from the broad product offering and market insights CIP gains through its experienced team and scale of its investment business.

Funds Management is also expanding its presence in Japan, with Challenger opening a Tokyo office in order to support the MS&AD strategic relationship and to develop distribution opportunities in the region. A Japanese real estate funds management licence has been granted and an application has been lodged for an investment advisory licence, which will facilitate distribution of investment products in Japan.

Funds Management is expected to continue to benefit from the overall growth in Australia's superannuation system and Challenger's expansion into international markets.

Risks

The above outlook for the Life and Funds Management businesses is subject to the following key business risks:

- regulatory and political changes impacting financial services participants;
- demand for and competition with Challenger products, including annuities and managed funds;
- investment market volatility; and
- general uncertainty around the global economy and its impact on markets in which Challenger operates and invests.

¹ Consolidated FUM for Australian Fund Managers – Rainmaker Roundup September 2018.

² Percentage of Funds Management Australian boutiques and CIP funds meeting or exceeding performance benchmark over five years.

Vision and strategy

Challenger's vision is to provide its customers with financial security for retirement. Challenger has four strategic pillars to ensure it achieves its vision over the long term. The four strategic pillars are:

- increase the Australian retirement savings pool allocation to secure and stable incomes;
- be recognised as the leader and partner of choice in retirement income solutions with a broad product offering;

- provide customers with relevant investment strategies exhibiting consistently superior performance; and
- deliver superior outcomes to customers and shareholders through a highly engaged, diverse and agile workforce committed to sustainable business practices and a strong risk and compliance culture.



1H19 strategic progress

Increase the allocation to secure and stable retirement incomes



Increase the Australian retirement savings pool allocation to secure and stable incomes

Industry annuity sales represent less than 5% of the annual transfer from the retirement savings (accumulation) phase to the retirement spending (retirement) phase. Challenger is focused on growing the allocation of Australian retirement savings to secure and stable incomes.

1H19 progress includes:

- Australian annuity sales up 4%;
- CarePlus annuity sales up 14%; and
- Long-term annuities representing 29% of total annuity sales.

Life sales mix and focus on long-term products

Challenger's annuity sales mix continues to evolve to long-term products. In 1H19, long-term annuity sales, which represent Australian lifetime annuities and fixed term annuities distributed through MS Primary in Japan, represented 29% of total annuity sales, up from 19% five years ago (1H14). Long-term annuity products accounted for 45% of the total annuity book at 31 December 2018.

Long-term annuities embed more value for shareholders as they lengthen the annuity book tenor, improve the maturity profile and typically enhance Return On Equity.

Strong growth in CarePlus sales

CarePlus is a lifetime annuity specifically designed for clients in aged care. It helps manage aged care costs by providing regular payments for life as well as providing peace of mind that 100% of the amount invested will be paid on death to either a nominated beneficiary or to the estate.

CarePlus sales continue to benefit from demographic trends with approximately 300 older Australians entering home or residential care each day. CarePlus sales increased by 14% and represented 8% of Challenger's annuity sales. CarePlus sales are benefiting from an ageing population and advisers having a greater understanding of the product and benefits it provides their aged care clients. The number of financial advisers writing CarePlus increased by 15% during 1H19.

Superannuation reforms engagement and advocacy

The Australian Government is considering a range of superannuation reforms aimed at enhancing the retirement phase of superannuation to better align it with the overall objective of the system – to provide income in retirement to substitute or supplement the age pension.

In 1H19, the Government reconfirmed its commitment to a Retirement Income Framework. The first stage of the proposed Retirement Income Framework is to include a Retirement Income Covenant in the *Superannuation Industry (Supervision) Act 1993*, which would require superannuation trustees to have a retirement income strategy in place for members by 1 July 2020.

The second stage of the Retirement Income Framework is to develop simplified, standardised metrics in product disclosures to help members make decisions about the most appropriate retirement income product for them. Key information would ensure members are supported to make informed decisions about the income, risk and flexibility associated with different retirement income products. The Government issued a Retirement Income Disclosure Consultation Paper in December 2018, with consultation closing in March 2019.

In November 2018, the Government introduced the *Social Services Legislation Amendment (Supporting Retirement Incomes)* Bill, which is designed to support the take-up of lifetime income stream products. The new means test rules are targeted to commence on 1 July 2019 and will encourage the development of innovative products that help retirees manage the risk of outliving their income, while ensuring a fair and consistent means test treatment for all retirement income products¹.

Refer to page 26 for more detail on the retirement income regulatory reforms.

Maintaining thought leadership position

As a key thought leader in retirement incomes in Australia, Challenger works with industry and consumer organisations and the Government to develop policy outcomes that will benefit older Australians.

In 1H19, Challenger partnered with National Seniors Australia to understand attitudes to the financial aspects of retirement. Challenger has also supported the Council of the Ageing (COTA) to explore consumer-related retirement income issues.

Challenger's research function is working with industry funds to help them understand the advantages of pooling longevity risk in retirement.

Throughout the half year, Challenger participated in numerous retirement income policy setting consultations, supporting the retirement income regulatory reform process.

Be the market leader and partner of choice in retirement income solutions



Be recognised as the leader and partner of choice in retirement income solutions with a broad product offering

Challenger's strategy includes being the partner of choice for superannuation funds, wealth managers and investment platforms for providing retirement income solutions. Challenger is the market leader in retirement incomes with 77%² annuity market share.

1H19 progress includes:

Leading adviser and consumer ratings

Among Australian financial advisers, Challenger continues to be the most recognised retirement income brand.

Challenger continues to be recognised by financial advisers as a leader in retirement income, with 95%³ of financial advisers either agreeing or strongly agreeing with this statement.

¹ The new age pension means test is subject to legislation being passed by parliament.

² Strategic Insights – based on annuities in force at 30 September 2018.

³ Marketing Pulse Adviser Study December 2018.

Challenger's leadership position in retirement increased by 2 percentage points over the year and is 36 percentage points above its nearest competitor.

Increased product access via investment and administration platforms

Challenger's strategic priorities include making its annuity products available on leading investment and administration platforms, allowing financial advisers and their customers easy and efficient access to Challenger annuities.

By making Challenger annuities available via investment and administration platforms, advisers and superannuation funds can easily design products that combine lifetime income streams with other products, such as account-based pensions.

In August 2018, Challenger's full range of annuity products were made available via BT's Panorama platform, making it simple and easy for their advisers to include secure and stable income streams in their client portfolios.

During 1H19, Challenger announced new annuity relationships with Netwealth and Hub24, both fast-growing specialist platform operators, providing access to Challenger's full range of fixed-term and lifetime annuities. Advisers using the Netwealth or Hub24 platforms will also have access to Challenger's retirement tools and resources and retirement income calculators. These annuity relationships will further expand Challenger's distribution reach. Challenger expects to launch on both Netwealth and Hub24 during 2H19.

Following the launch on Netwealth and Hub24, over 70% of Australian financial advisers will be able to access Challenger annuities via their primary platform.

Provide relevant and superior investment strategies for customers



Provide customers with relevant investment strategies exhibiting consistently superior performance

Challenger is focused on providing relevant investment strategies that exhibit superior investment performance in order to help build retirement savings.

1H19 progress includes:

Maintaining superior investment performance

Funds Management has a long track record of achieving superior investment performance, which is helping attract superior net flows. Over five years, 92% of Funds Management funds have outperformed their benchmark¹.

For Fidante Partners, over the past ten years, 86% of funds have achieved either first or second quartile investment performance², with most funds performing well above average. Over one year, 70% of funds achieved first or second quartile investment performance.

Adding new boutiques and investment strategies

Funds Management continues to expand its product offering by adding new boutiques and new investment strategies for existing managers.

In January 2019, Fidante Partners launched a new London-based boutique offering, FME Asset Management. The boutique focuses on intraday absolute return trading in liquid futures and has a low correlation with traditional benchmarks and the broader hedge fund industry.

During 1H19, Funds Management expanded its product offering:

- Ardea Investment Management commenced development of the High Alpha Real Outcome Fund, which is a higher returning version of the flagship Ardea Real Outcome Fund;
- Kapstream launched the Kapstream Absolute Return Income Plus strategy, which targets an absolute return of 3-4% above the cash rate; and
- Whitehelm Capital commenced development of the Whitehelm Listed Core Infrastructure Fund, a UCITS³-compliant fund replicating its existing strategy.

¹ Percentage of Funds Management Australian boutiques and CIP funds meeting or exceeding performance benchmark over five years.

² Mercer as at December 2018.

³ Undertakings for the Collective Investment in Transferable Securities (UCITS) is a regulatory framework of the European Union that creates a harmonised regime throughout Europe for the management and sale of mutual funds.

Award-winning investment strategies

The quality of Fidante Partners' investment managers continues to be externally recognised. During 1H19, the following funds won investment manager awards:

- Ardea Investment Management – Kanganews Australian Rates Fund Manager of the Year (2018);
- Bentham Asset Management – Money Magazine Best of the Best Award for Best Income Fund (2019);
- Greencape Capital – Money Magazine Best of the Best Award for Best Australian Share Fund (2019);
- Kapstream – Kanganews Australian Credit Fund Manager of the Year (2018); and
- Lennox Capital Partners – SuperRatings & Lonsec Rising Star Award (2018).

Highly rated investment products

Fidante Partners' investment managers and funds are highly rated by external asset consultants. For Fidante Partners' funds rated by asset consultants:

- 34% of ratings are the top rating (e.g. 'Highly Recommended') compared to an average of approximately 10% across the Australian funds management industry; and
- 98% of ratings are a 'buy' rating compared to an average of approximately 70% across the Australian funds management industry.

Expanding capability into Exchange Traded Fund (ETF) market

There is strong demand from investors for simple and easy-to-access liquid investment products. ETFs have experienced very strong growth in a number of markets as they provide the ability to deliver diversified investment strategies in a liquid and simple-to-execute format. ETFs have traditionally focused on passive or factor-based investments; however, Funds Management identified an opportunity to expand ETF usage to active manager products.

In December 2018, Funds Management launched one of Australia's first active fixed income ETFs, the ActiveX Ardea Real Outcome Bond Fund (ASX: XARO). The fund was listed on the Australian Securities Exchange (ASX) in December 2018 and is managed by Ardea Investment Management.

Expanding into Japanese funds management market

Funds Management is expanding its presence in Japan. Following the opening of a Tokyo office to support the MS&AD strategic relationship, in 2H18 the business was granted a licence to manage real estate assets in Japan. During 1H19, an application was lodged with the Japanese regulator for an investment advisory licence which, once granted, will facilitate distribution of other investment asset classes in the Japanese market, including Fidante Partners products and CIP's capabilities.

Sustainable business practices to deliver superior outcomes



Deliver superior outcomes to customers and shareholders through a highly engaged, diverse and agile workforce committed to sustainable business practices and a strong risk and compliance culture

Challenger believes maintaining a highly engaged, diverse and agile workforce committed to sustainable business practices and a strong risk and compliance culture is essential for providing customers and shareholders with superior outcomes.

1H19 progress includes:

Diversity and gender pay equality

Challenger seeks to create an inclusive workforce and values the capability and experience that diversity brings to the organisation. To encourage greater representation of women at senior levels of the organisation, Challenger continues to develop initiatives targeted at improving gender equality, including setting gender diversity targets.

Challenger set diversity targets in December 2015, which included a target of 38% of management roles being held by women in FY20. In 1H19, the FY20 target for women in management roles was increased from 38% to 40%.

Challenger is committed to pay equality. The Leadership Team and the Board review gender pay equality annually as part of our remuneration process. This focus has ensured that for the past five years, the gender pay gap has been closed and gender pay equality for similar roles has been maintained.

Flexible work

Challenger has a focus on providing its employees with flexibility. Over the past year, almost 100 employees moved to a formal flexible working arrangement, representing approximately 15% of Challenger's people. In addition, a large number of men and women took advantage of informal flexible work arrangements throughout the year.

Maintain superior cost to income ratio

Challenger's business is highly scalable and efficient. Challenger's normalised cost to income ratio target is a range of 30% to 34%. The cost to income ratio was 32.7% in 1H19 and has fallen by 11 percentage points over the past ten years.

Challenger maintains one of the leading cost to income ratios in the Australian wealth management industry.

Enhancing sustainability capability

As one of the largest investment managers in Australia, Challenger recognises its responsibilities in relation to sustainability. Challenger has established a clear sustainability strategy and has significantly enhanced its sustainability reporting, including independent assurance of emissions reporting.

Challenger is a constituent of the FTSE4Good Index and is focused on ensuring all key stakeholders understand Challenger's approach to sustainability. Challenger also believes there are links between long-term sustainable returns and the quality of an organisation's Environmental, Social and Governance (ESG) practices.

Challenger is a signatory to the Principles for Responsible Investment (PRI) and has adopted an integrated investment management approach to deliver responsible investment outcomes.

To help employees and other stakeholders understand Challenger's approach to sustainability, a video was created in 1H19 which is available on Challenger's public website.

In order to support Fidante Partners' and CIP's ESG approach, a dedicated ESG specialist was appointed in FY18 to accelerate Challenger's investment manager ESG credentials and reporting to meet increasing client interest in how their monies are invested and the impact of their investment.

During 1H19, a number of Fidante Partner boutique managers joined the Climate Action 100+ initiative, focused on coordinating investor engagement with the world's largest carbon emitters. Fidante Partners also hosted a number of education sessions on ESG for its investment managers and is in the process of integrating ESG reporting across its investment funds and mandates.

Key performance indicators

	1H19	2H18	1H18	2H17	1H17	2H16	1H16
Earnings							
Normalised NPBT (\$m)	270.0	272.7	274.6	250.9	254.1	231.0	236.4
Normalised NPAT (\$m)	199.8	198.2	207.9	188.3	196.6	179.6	182.1
Statutory NPAT (\$m)	6.1	127.1	195.4	196.1	201.5	93.4	234.3
Underlying operating cash flow (\$m)	103.7	143.6	53.8	131.4	168.5	149.7	147.4
Normalised cost to income ratio (%)	32.7%	33.2%	32.1%	33.9%	32.9%	35.4%	33.8%
Normalised effective tax rate (%)	26.0%	27.3%	24.3%	24.9%	22.6%	22.3%	23.0%
Earnings per share (cents)							
Basic – normalised	33.1	32.9	35.2	33.5	35.0	32.0	32.6
Basic – statutory	1.0	21.1	33.1	34.9	35.8	16.6	41.9
Diluted – normalised	30.1	30.9	33.8	32.1	33.3	30.3	30.5
Diluted – statutory	1.0	20.9	31.9	33.4	34.1	16.3	39.0
Return On Equity (%)							
Normalised ROE – pre-tax	15.6%	16.1%	16.8%	18.0%	18.7%	17.4%	18.1%
Normalised ROE – post-tax	11.5%	11.7%	12.7%	13.5%	14.5%	13.6%	14.0%
Statutory ROE – post-tax	0.3%	7.5%	11.9%	14.0%	14.8%	7.1%	18.0%
Capital management							
Net assets – average ¹ (\$m)	3,443	3,419	3,249	2,818	2,694	2,664	2,592
Net assets – closing (\$m)	3,388	3,485	3,470	2,888	2,781	2,681	2,696
Net assets per basic share (\$)	5.60	5.79	5.75	5.14	4.95	4.80	4.80
Net tangible assets (\$m)	2,793	2,893	2,878	2,300	2,192	2,097	2,111
Net tangible assets per basic share (\$)	4.61	4.81	4.77	4.09	3.90	3.75	3.75
Dividend (cps)	17.5	18.0	17.5	17.5	17.0	16.5	16.0
Dividend franking (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Normalised dividend payout ratio (%)	52.9%	54.7%	49.7%	52.2%	48.6%	51.6%	49.1%
Sales, net flows and assets under management							
Life annuity sales (\$m)	2,140.5	1,711.2	2,289.5	1,815.1	2,196.1	1,710.1	1,641.1
Other Life sales (\$m)	599.8	520.4	1,034.5	378.9	562.3	588.8	409.7
Total Life sales (\$m)	2,740.3	2,231.6	3,324.0	2,194.0	2,758.4	2,298.9	2,050.8
Life annuity flows (\$m)	493.5	634.5	758.2	451.5	448.9	469.9	270.5
Life annuity book (\$m)	12,324	11,728	11,116	10,322	9,785	9,559	8,868
Life annuity book growth (%)	4.2%	6.2%	7.3%	4.7%	4.7%	5.4%	3.1%
Total Life flows (\$m)	583.7	848.4	947.9	469.5	843.4	721.2	347.1
Total Life book ² (\$m)	14,496	13,863	13,025	12,010	11,418	10,874	9,904
Total Life book growth (%)	4.2%	7.1%	7.9%	4.3%	7.8%	7.5%	3.6%
Funds Management – net flows ³ (\$m)	(977)	1,367	3,934	3,004	3,217	1,839	(4,356)
Total Group AUM (\$m)	78,386	81,143	76,523	69,988	64,705	60,051	57,617
Other							
Headcount – closing FTEs	675	676	682	655	632	635	618
Weighted average number of basic shares on issue (m)	604.4	602.2	591.1	562.1	562.3	561.2	559.1
Number of basic shares on issue (m)	605.4	601.7	603.3	561.9	562.3	558.8	562.2
Share price closing (\$)	9.49	11.83	14.03	13.34	11.24	8.63	8.72

¹ Net assets – average calculated on a monthly basis.

² Total Life book includes the Life annuity book, Guaranteed Index Return (GIR) and Challenger Index Plus Fund liabilities.

³ Funds Management 1H16 net flows include \$5.4bn derecognition of Kapstream FUM following the sale of Kapstream in July 2015.

Consolidated profit and loss

\$m	1H19	2H18	1H18	2H17	1H17	2H16	1H16
Cash earnings	251.5	262.7	276.4	261.1	265.3	247.4	244.5
Normalised capital growth	78.1	70.8	59.7	53.9	51.1	52.1	48.4
Normalised Cash Operating Earnings (COE)	329.6	333.5	336.1	315.0	316.4	299.5	292.9
Net fee income	75.2	79.2	72.0	68.7	65.3	60.6	67.1
Other income	0.5	0.5	0.5	0.4	0.4	0.4	0.6
Total net income	405.3	413.2	408.6	384.1	382.1	360.5	360.6
Personnel expenses	(92.1)	(96.8)	(91.0)	(91.4)	(87.9)	(89.0)	(83.8)
Other expenses	(40.3)	(40.5)	(40.1)	(38.8)	(37.8)	(38.7)	(38.1)
Total expenses	(132.4)	(137.3)	(131.1)	(130.2)	(125.7)	(127.7)	(121.9)
Normalised EBIT	272.9	275.9	277.5	253.9	256.4	232.8	238.7
Interest and borrowing costs	(2.9)	(3.2)	(2.9)	(3.0)	(2.3)	(1.8)	(2.3)
Normalised profit before tax	270.0	272.7	274.6	250.9	254.1	231.0	236.4
Normalised tax	(70.2)	(74.5)	(66.7)	(62.6)	(57.5)	(51.4)	(54.3)
Normalised profit after tax	199.8	198.2	207.9	188.3	196.6	179.6	182.1
Investment experience after tax	(193.7)	(63.5)	(12.5)	7.8	4.9	(86.2)	30.1
Significant items after tax ¹	-	(7.6)	-	-	-	-	22.1
Statutory net profit after tax	6.1	127.1	195.4	196.1	201.5	93.4	234.3
Performance analysis							
Normalised earnings per share – basic (cents)	33.1	32.9	35.2	33.5	35.0	32.0	32.6
Shares for basic EPS calculation (m)	604.4	602.2	591.1	562.1	562.3	561.2	559.1
Normalised cost to income ratio (%)	32.7%	33.2%	32.1%	33.9%	32.9%	35.4%	33.8%
Normalised tax rate (%)	26.0%	27.3%	24.3%	24.9%	22.6%	22.3%	23.0%
Total net income analysis (%)							
Cash earnings (Life)	62.1%	63.6%	67.7%	68.0%	69.4%	68.6%	67.8%
Normalised capital growth (Life)	19.3%	17.1%	14.6%	14.0%	13.4%	14.5%	13.4%
Net fee income (Funds Management)	18.5%	19.2%	17.6%	17.9%	17.1%	16.8%	18.6%
Other income (Corporate)	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%
Normalised EBIT by division (\$m)							
Life	277.9	279.7	283.0	264.2	267.0	250.9	248.9
Funds Management	26.1	30.8	27.1	24.4	20.7	15.8	21.6
Corporate	(31.1)	(34.6)	(32.6)	(34.7)	(31.3)	(33.9)	(31.8)
Normalised EBIT	272.9	275.9	277.5	253.9	256.4	232.8	238.7

¹ 2H18 significant items (after tax) represents \$14m (after tax) of one-off expenses, including the impairment of residual software and a Fidante Partners boutique following its closure and restructure costs, offset by \$6m (after tax) of one-off revenue, including partial writeback of deferred consideration in respect of the acquisition of Fidante Partners Europe. 1H16 significant items (after tax) primarily represent the gain on sale of Challenger's equity investment in Kapstream, offset by boutique impairments and office relocation costs.

Consolidated profit and loss

Normalised net profit after tax

1H19 normalised profit after tax was \$200m and decreased by \$8m (4%) from \$208m in 1H18. The decrease in normalised profit after tax reflects lower normalised NPBT (down \$5m or 2%) and higher normalised tax (up \$3m).

Normalised earnings per share (EPS)

Normalised EPS decreased by 6% in 1H19 to 33.1 cps. The decrease in normalised EPS reflects lower normalised net profit after tax (down 4%) and an increase in the weighted average number of shares on issue. The weighted average number of shares on issue in 1H19 was 2% higher than 1H18 as a result of the \$500m equity placement to MS&AD in August 2017 (refer to page 25 for more detail).

Net income

Total net income was \$405m in 1H19, down \$3m (1%) on 1H18 due to:

- Life Cash Operating Earnings (COE) decreasing by \$6m (2%) as a result of lower cash distributions on the Life's absolute return fund portfolio (refer to page 20 for more details); and
- Funds Management fee income increased by \$3m (4%), with higher FUM-based income partially offset by lower performance fees.

Expenses

1H19 total expenses were \$132m, up \$1m (1%) on 1H18. The increase in expenses primarily relate to higher personnel costs (up \$1m) as a result of general remuneration increases.

The 1H19 normalised cost to income ratio was 32.7% and increased by 60 bps on 1H18. The higher normalised cost to income ratio reflects both lower net income and higher expenses. The 1H19 normalised cost to income ratio is toward the mid-point of Challenger's target range of between 30% and 34%.

Challenger has a highly scalable business and is one of Australia's most efficient financial services companies. Over the past 10 years, Challenger's normalised cost to income ratio has fallen by eleven percentage points.

Normalised EBIT

1H19 normalised EBIT was \$273m and decreased by \$5m (2%) from \$278m in 1H18. Life EBIT decreased by \$5m (2%), Funds Management EBIT decreased by \$1m (4%) and Corporate EBIT improved by \$1m (up 5%).

The decrease in Life EBIT (down 2%) reflects higher Life average investment assets offset by a reduction in Life's COE margin (refer to page 20 for more detail). Life's 1H19 COE margin was impacted by lower cash distributions on Life's absolute return fund portfolio.

Funds Management EBIT decreased by \$1m (4%) with the benefit of higher average FUM (up 9%) offset by lower performance fees (down \$4m).

Corporate EBIT improved by \$1m (up 5%) due to lower expenses.

Normalised Return On Equity (ROE)

1H19 normalised ROE was 15.6% (pre-tax) and decreased by 120 bps on 1H18. The lower normalised ROE reflects both lower normalised net profit and higher levels of capital following the equity placement to MS&AD in August 2017.

Normalised tax

Normalised tax was \$70m in 1H19 and increased by \$4m on 1H18. The higher normalised tax reflects a higher normalised tax rate.

The 1H19 normalised tax rate was 26.0% and is consistent with Challenger's normalised tax rate target of between 26% and 28%, reflecting the composition of Challenger's business. This includes a combination of domestic earnings (generally taxed at 30%) and offshore earnings (generally taxed at rates below 30%).

Investment experience after tax

Challenger Life is required by Australian Accounting Standards to value investment assets and liabilities supporting the Life business at fair value. This gives rise to fluctuating valuation movements on investment assets and liabilities being recognised in the profit and loss. Challenger is generally a long-term holder of assets due to them being held to match the term of life contract liabilities. As a result, Challenger takes a long-term view of the expected capital growth of the portfolio rather than focusing on short-term movements.

Changes in macroeconomic variables impact the value of Life's assets and liabilities, with the impact included as investment experience.

Investment experience also includes new business strain, being the requirement to apply the risk-free discount rate plus an illiquidity premium to value annuity liabilities, rather than the actual interest rate paid on the annuities (refer to page 51 for more detail).

Investment experience relates to the Life business, and further details are disclosed as part of Life's financial results.

1H19 investment experience was a loss of \$194m (after tax). Refer to page 22 for more detail.

Significant items

There were no significant items in 1H19.

Statutory net profit after tax

Statutory net profit after tax includes after-tax investment experience and significant one-off items.

Statutory net profit after tax was \$6m in 1H19, down from \$195m in 1H18. The 1H19 statutory net profit after tax includes after-tax investment experience of -\$194m (refer to page 22 for more detail).

Dividends

1H19 dividend

The Board has declared an interim FY19 dividend of 17.5 cps (fully franked), which was unchanged on the interim FY18 dividend.

Dates for the interim FY19 dividend are as follows:

- ex-date: 26 February 2019;
- record date: 27 February 2019;
- Dividend Reinvestment Plan (DRP) election date: 28 February 2019; and
- dividend payment date: 26 March 2019.

The normalised dividend payout ratio for the FY19 interim dividend was 52.9%, which is slightly above Challenger's normalised dividend payout ratio target of between 45% and 50% of normalised profit after tax. Challenger has a DRP in place (refer below), which is expected to have the effect of reducing the cash dividend payout ratio by approximately 2%.

Challenger's franking account balance at 31 December 2018 was \$130m.

Dividend Reinvestment Plan (DRP)

Challenger operates a DRP, providing an effective way for shareholders to reinvest their dividends and increase their shareholding without incurring transaction costs.

The DRP participation rate for the final FY18 dividend (paid in September 2018) was 3% of issued capital, with 0.3m new Challenger shares issued. Under the terms of the DRP, new Challenger shares were issued based on a 10-day Challenger Volume-Weighted Average Price (VWAP), with no share price discount applied.

For the final FY18 dividend, the DRP had the effect of reducing the effective cash dividend payout ratio by approximately 2%.

For the interim FY19 dividend (to be paid in March 2019), new Challenger shares will be issued in order to fulfil DRP requirements and will also be issued based on a 10-day VWAP, with no share price discount applied.

Credit ratings

In December 2018, Standard & Poor's Global Ratings (S&P) completed its annual ratings review and affirmed both Challenger Life Company Limited's (CLC's) and Challenger Limited's credit ratings. S&P also retained their positive outlook for both Challenger Life Company Limited and Challenger Limited.

S&P ratings are as follows:

- CLC: 'A' with a positive outlook; and
- Challenger Limited: 'BBB+' with a positive outlook.

FY19 outlook

Normalised net profit before tax

Challenger provides normalised net profit before tax expectations for FY19.

Normalised net profit before tax for FY19 is expected to be in a range of \$545m to \$565m. Expectations were reduced in January 2019 from a range of \$591m to \$613m to reflect:

- 1H19 normalised net profit before tax and flow on into 2H19 (e.g. lower equity distributions and lower annuity book growth); and
- Life investment portfolio changes to lower capital intensity.

Normalised effective tax rate

The FY19 normalised effective tax rate is expected to be between 26% and 28%.

Normalised Return On Equity (ROE)

The normalised pre-tax ROE outcome in FY19 is not expected to reach the 18% target due to lower earnings in FY19. 1H19 normalised ROE was 15.6% (pre-tax), reflecting lower normalised net profit before tax and higher levels of capital following the \$500m equity placement to MS&AD in August 2017 (refer to page 25 for more detail).

Normalised cost to income ratio

Challenger's business is highly efficient and very scalable. As a result, Challenger is one of Australia's most efficient financial services companies. Challenger's normalised cost to income ratio target is a range of 30% to 34%.

Dividend policy

Challenger targets a dividend payout ratio in the range of 45% to 50% of normalised profit after tax and aims to frank dividends to the maximum extent possible. Based on current forecasts, the Board expects future dividends to be fully franked over the medium term. However, the actual dividend payout ratio and franking levels will depend on prevailing market conditions and capital allocation priorities.

Group balance sheet¹

\$m	1H19	FY18	1H18	FY17	1H17	FY16	1H16
Assets							
Life investment assets							
Fixed income and cash (net)	12,014.5	11,727.8	11,076.5	10,415.0	9,520.9	9,315.5	8,487.6
Property (net)	3,739.4	3,840.5	3,654.6	3,407.8	3,328.3	3,150.0	3,063.2
Equity and other investments	2,113.4	1,799.1	1,642.7	1,360.1	1,231.6	1,079.0	1,060.0
Infrastructure (net)	757.0	717.7	666.3	494.4	526.4	567.2	536.4
Life investment assets	18,624.3	18,085.1	17,040.1	15,677.3	14,607.2	14,111.7	13,147.2
Cash and cash equivalents (Group cash)	87.7	84.9	121.9	83.8	80.7	84.2	89.3
Receivables	167.7	198.3	155.1	135.1	121.0	120.2	148.5
Derivative assets	158.7	150.7	243.4	232.7	226.0	354.2	292.6
Investment in associates	53.4	62.4	54.2	53.5	49.1	51.5	30.2
Other assets	57.0	50.6	53.3	46.0	48.2	48.0	50.7
Fixed assets	29.7	31.2	32.2	33.7	32.9	34.9	34.3
Goodwill and intangibles	594.9	592.9	591.3	588.4	588.4	583.9	585.5
Less Group/Life eliminations ²	(63.5)	(73.7)	(83.8)	(94.9)	(93.2)	(105.3)	(123.0)
Total assets	19,709.9	19,182.4	18,207.7	16,755.6	15,660.3	15,283.3	14,255.3
Liabilities							
Payables	306.5	303.8	249.1	245.5	219.8	228.6	184.9
Tax liabilities	31.8	89.0	95.2	199.0	177.7	162.6	182.4
Derivative liabilities	276.3	229.6	158.7	216.5	322.7	409.5	352.8
Subordinated debt	400.6	403.7	405.3	393.6	384.8	576.7	576.5
Challenger Capital Notes	794.7	793.0	791.2	789.4	339.3	338.5	337.7
Provisions	16.1	14.6	13.6	13.5	17.4	12.5	21.3
Life annuity book	12,323.7	11,728.3	11,115.8	10,322.2	9,784.9	9,558.5	8,868.4
GIR ³ and Challenger Index Plus Fund liabilities	2,172.3	2,135.0	1,909.3	1,687.8	1,633.2	1,315.5	1,035.1
Total liabilities	16,322.0	15,697.0	14,738.2	13,867.5	12,879.8	12,602.4	11,559.1
Group net assets	3,387.9	3,485.4	3,469.5	2,888.1	2,780.5	2,680.9	2,696.2
Equity							
Contributed equity	2,090.2	2,051.7	2,071.0	1,554.5	1,560.1	1,546.7	1,576.8
Reserves	(66.0)	(33.3)	(47.5)	(16.5)	(29.9)	(7.9)	(19.7)
Retained earnings	1,363.7	1,467.0	1,446.0	1,350.1	1,250.3	1,142.1	1,139.1
Total equity	3,387.9	3,485.4	3,469.5	2,888.1	2,780.5	2,680.9	2,696.2

¹ Excludes consolidation of Special Purpose Vehicles (SPVs) and non-controlling interests.

² Group/Life eliminations represent the fair value of the SPV residual income notes (i.e. NIM) held by Challenger Life Company Limited.

³ Guaranteed Index Return (GIR).

Change in Group net assets

\$m	1H19	2H18	1H18	2H17	1H17	2H16	1H16
Opening net assets	3,485.4	3,469.5	2,888.1	2,780.5	2,680.9	2,696.2	2,543.2
Statutory net profit after tax	6.1	127.1	195.4	196.1	201.5	93.4	234.3
Dividends paid	(109.4)	(106.1)	(99.5)	(96.3)	(93.3)	(90.4)	(87.5)
New share issue	3.4	3.3	503.3	3.9	4.1	4.9	6.3
Reserve movements	(32.7)	14.2	(31.0)	13.4	(22.0)	11.8	(43.4)
CPP ¹ Trust movements	35.1	(22.6)	13.2	(9.5)	9.3	(35.0)	43.3
Closing net assets	3,387.9	3,485.4	3,469.5	2,888.1	2,780.5	2,680.9	2,696.2

¹ The Challenger Performance Plan (CPP) Trust.

Earnings per share and issued share capital

	1H19	2H18	1H18	2H17	1H17	2H16	1H16
Earnings per share (cents)							
Basic – normalised	33.1	32.9	35.2	33.5	35.0	32.0	32.6
Basic – statutory	1.0	21.1	33.1	34.9	35.8	16.6	41.9
Diluted – normalised	30.1	30.9	33.8	32.1	33.3	30.3	30.5
Diluted – statutory	1.0	20.9	31.9	33.4	34.1	16.3	39.0
Number of shares (m)							
Basic share count	605.4	601.7	603.3	561.9	562.3	558.8	562.2
CPP ¹ Trust treasury shares	5.8	9.2	7.3	10.1	9.4	12.4	8.4
Total issued shares	611.2	610.9	610.6	572.0	571.7	571.2	570.6
Movement in basic share count							
Opening	601.7	603.3	561.9	562.3	558.8	562.2	553.4
CPP ¹ Trust deferred share purchase	(0.8)	(2.0)	(2.0)	(0.8)	(2.0)	(4.0)	-
Net treasury shares (acquired)/released	4.2	0.1	4.8	0.1	5.0	-	7.9
New share issues	0.3	0.3	38.6	0.3	0.5	0.6	0.9
Closing	605.4	601.7	603.3	561.9	562.3	558.8	562.2
Movement in CPP Trust treasury shares							
Opening	9.2	7.3	10.1	9.4	12.4	8.4	16.3
Shares vested to participants	(4.2)	(0.1)	(5.6)	(0.1)	(6.0)	(0.5)	(9.0)
CPP ¹ Trust deferred share purchase	0.8	2.0	2.0	0.8	2.0	4.0	-
Shares bought into CPP Trust	-	-	0.8	-	1.0	0.5	1.1
Closing	5.8	9.2	7.3	10.1	9.4	12.4	8.4
Weighted average number of shares (m)							
Basic EPS shares							
Total issued shares	611.0	610.9	599.4	571.9	571.4	570.9	570.1
Less CPP ¹ Trust treasury shares	(6.6)	(8.7)	(8.3)	(9.8)	(9.1)	(9.7)	(11.0)
Shares for basic EPS calculation	604.4	602.2	591.1	562.1	562.3	561.2	559.1
Diluted shares for normalised EPS							
Shares for basic EPS calculation	604.4	602.2	591.1	562.1	562.3	561.2	559.1
Add dilutive impact of unvested equity awards	7.1	10.5	11.9	14.1	14.7	15.7	17.7
Add dilutive impact of Capital Notes	85.1	65.6	57.8	43.2	31.8	39.1	41.6
Add dilutive impact of subordinated notes	42.3	32.6	5.9	-	-	-	-
Shares for diluted normalised EPS calculation	738.9	710.9	666.7	619.4	608.8	616.0	618.4
Diluted shares for statutory EPS							
Shares for basic EPS calculation	604.4	602.2	591.1	562.1	562.3	561.2	559.1
Add dilutive impact of unvested equity awards	7.1	10.5	11.9	14.1	14.7	15.7	17.7
Add dilutive impact of Capital Notes	-	65.6	57.8	43.2	31.8	39.1	41.6
Add dilutive impact of subordinated notes	-	32.6	5.9	-	-	-	-
Shares for diluted statutory EPS calculation	611.5	710.9	666.7	619.4	608.8	616.0	618.4
Summary of shares rights (m)							
Hurdled Performance Share Rights							
Opening	8.2	8.2	10.2	10.4	12.5	13.0	17.3
New grants	2.2	-	2.0	-	2.5	-	3.4
Vesting/forfeiture	(3.0)	-	(4.0)	(0.2)	(4.6)	(0.5)	(7.7)
Closing	7.4	8.2	8.2	10.2	10.4	12.5	13.0
Deferred Performance Share Rights							
Opening	2.8	2.9	3.7	3.7	3.8	3.8	3.5
New grants	1.4	-	1.3	-	1.6	-	2.3
Vesting/forfeiture	(1.6)	(0.1)	(2.1)	-	(1.7)	-	(2.0)
Closing	2.6	2.8	2.9	3.7	3.7	3.8	3.8

¹ The Challenger Performance Plan (CPP) Trust.

Issued share capital

Issued share capital and diluted share count

The number of Challenger Limited shares listed on the ASX at 31 December 2018 was 611.2m shares. The number of shares on issue increased by 0.3m shares during 1H19 as a result of new shares issued under Challenger's DRP in September 2018.

The basic share count used to determine Challenger's normalised and statutory EPS is based on requirements set out in Australian Accounting Standards. Under Australian Accounting Standards:

- the basic share count is reduced for treasury shares;
- the dilutive share count includes unvested equity awards made to employees under the Challenger Performance Plan (CPP); and
- the dilutive share count considers convertible instruments (e.g. Challenger Capital Notes, Challenger Capital Notes 2, and subordinated debt) as determined by a probability of vesting test (refer below for more detail on the accounting treatment).

Treasury shares

The CPP Trust was established to purchase shares to satisfy Challenger's employee equity obligations arising from hurdle and deferred performance share rights issued under employee remuneration structures.

Shares are acquired by the CPP Trust to mitigate shareholder dilution and provide a mechanism to hedge the cash cost of acquiring shares in the future to satisfy vested equity awards.

The CPP Trust typically acquires physical shares on market or via forward share purchase agreements. The use of forward share purchase agreements was implemented to increase capital efficiency. Shares held by the CPP Trust and share forward purchase agreements are classified as treasury shares.

It is expected that should equity awards vest in the future, the CPP Trust will satisfy equity requirements via a combination of treasury shares and settlement of forward purchase agreements. As such, it is not anticipated that new Challenger shares will be issued to meet future vesting obligations of equity awards.

Basic weighted average share count

The basic weighted average number of shares used to determine both the normalised and statutory basic EPS increased by 2.2m shares in 1H19 to 604.4m shares. The increase reflected the impact of new shares issued to support Challenger's DRP, and the net release of treasury shares to meet CPP Trust requirements.

Dilutive share count

Dilutive impact of unvested equity awards

Challenger's approach to executive remuneration includes providing equity awards to ensure alignment between key employees and shareholders.

Hurdled Performance Share Rights (HPSRs) vest over a period of up to five years, with vesting subject to meeting total shareholder return performance hurdles and continued employment.

A portion of variable remuneration is awarded in Deferred Performance Share Rights (DPSRs) which vest over a period of up to three years, subject to continued employment.

The dilutive impact of these awards in any given period is based on the probability of future vesting.

Accounting treatment of Capital Notes and subordinated debt

Challenger Capital Notes, Challenger Capital Notes 2 and subordinated debt are an effective source of funding for Challenger.

Each of the Capital Notes, Capital Notes 2 and subordinated debt have convertibility features which would result in these instruments converting to ordinary shares under certain circumstances, including APRA determining Challenger Life to be non-viable. It is Challenger's intention to refinance each of these instruments at their respective call dates and therefore conversion to ordinary shares is unlikely.

However, under Australian Accounting Standards, convertible debt is considered dilutive whenever the interest per potential ordinary share for each of these instruments is less than Challenger's basic EPS for the period. As such, a test is required to be undertaken each reporting period to determine if they are included in the dilutive share count.

Dilutive impact of Capital Notes and subordinated debt

The dilutive share count for Challenger's convertible debt (Challenger Capital Notes and subordinated debt) is based on the following formula:

$$\frac{\text{Face value of debt}}{\text{Conversion factor} \times \text{Challenger's 20-day VWAP share price}}$$

The conversion factor for all of Challenger's convertible debt is 99%. The weighted average Challenger share price is determined over the last 20 days of trading in each reporting period.

Normalised diluted EPS

The normalised basic EPS for 1H19 of 33.1 cps is greater than the interest cost per potential ordinary share for each of the Capital Notes, Capital Notes 2, and subordinated debt.

As a result, all instruments were considered to be dilutive in 1H19 and the weighted average number of shares used to determine the normalised diluted EPS increased by 28.0m shares in 1H19. The increase is due to the weighted average Challenger share price for the last 20 trading days of 1H19 being \$9.55 per share, down from \$12.40 for the last 20 trading days of 2H18.

The 1H19 normalised profit is adjusted by \$23m of interest paid on Capital Notes, Capital Notes 2 and subordinated notes in order to determine normalised diluted EPS.

Statutory diluted EPS

The statutory basic EPS for 1H19 of 1.0 cps is less than the interest cost per potential ordinary share for each of the Capital Notes, Capital Notes 2, and subordinated debt.

As a result none of the instruments were considered to be dilutive and so the weighted average number of shares used to determine the statutory dilutive EPS decreased by 99.4m shares in 1H19.

Consolidated operating cash flow

\$m	1H19	2H18	1H18	2H17	1H17	2H16	1H16
Receipts from customers	336.3	333.7	336.5	334.0	339.0	317.2	281.2
Dividends received	67.6	41.0	53.8	30.5	36.0	24.2	32.2
Interest received	413.4	364.5	385.6	347.2	326.5	294.3	344.8
Interest paid	(366.5)	(296.9)	(275.0)	(293.6)	(233.5)	(221.0)	(223.8)
Payments to suppliers and employees	(303.5)	(253.6)	(294.7)	(246.6)	(261.5)	(231.6)	(256.5)
Income tax paid	(43.6)	(45.1)	(152.4)	(40.1)	(38.0)	(33.4)	(30.5)
Underlying operating cash flow	103.7	143.6	53.8	131.4	168.5	149.7	147.4
Adjusted for:							
Net annuity policy capital receipts	493.7	634.5	758.2	451.5	448.9	469.9	270.5
Net other Life capital receipts/(payments)	90.2	214.0	189.6	67.5	345.0	230.1	78.9
Other ¹	(33.1)	18.6	(34.9)	6.9	(22.5)	(34.9)	(29.2)
Operating cash flow per financial report	654.5	1,010.7	966.7	657.3	939.9	814.8	467.6

¹ Other includes net SPV operating cash flow adjustments for differences between statutory operating cash flow and Normalised Cash Operating Earnings.

Underlying operating cash flow excludes cash flows that are capital in nature, such as annuity sales and annuity capital payments.

1H19 underlying operating cash flow was \$104m, up \$50m on 1H18. The increase in underlying operating cash flow reflects a reduction in income tax paid, down \$109m on 1H18, partially offset by timing of interest payments and receipts. Income tax in 1H18 included payments in respect of FY17 and increased Pay As You Go instalments. Interest received and paid increased in 1H19 due to growth in investment assets, Life annuity book, GIR and Challenger Index Plus Fund liabilities.

1H19 underlying operating cash flow of \$104m is \$96m lower than normalised net profit after tax mainly due to non-cash normalised growth of \$78m.

Net annuity policy capital receipts

1H19 net annuity policy capital receipts were \$494m and comprise:

- annuity sales of \$2,141m; less
- annuity capital payments of \$1,647m.

Annuity capital payments represent the return of capital to annuitants and exclude interest payments.

1H19 annuity net flows (\$494m) represent annuity book growth of 4.2% for the half year, and can be calculated as annuity net flows (\$494m) divided by opening period Life annuity book (\$11,728m – refer to page 27).

Net other Life capital receipts

1H19 net other Life capital receipts were \$90m and comprise:

- other Life sales of \$600m; less
- other Life capital payments of \$510m.

1H19 other Life sales of \$600m were GIR mandate rollovers.

1H19 other Life net flows of \$90m were down from \$190m in 1H18, reflecting the timing of maturities and subsequent rollovers.

1H19 total Life book growth was 4.2% (1H18 7.9%) and can be calculated as total net flows (\$584m) divided by the sum of the opening period liabilities of \$13,863m (Life annuity book, GIR and Challenger Index Plus Fund – refer to page 27).

Life financial results

\$m	1H19	2H18	1H18	2H17	1H17	2H16	1H16
Investment yield – policyholders' funds	432.5	433.6	435.4	408.5	405.0	385.1	382.4
Interest expense	(260.1)	(250.7)	(234.7)	(216.4)	(210.3)	(203.5)	(206.9)
Distribution expense	(11.0)	(10.4)	(11.7)	(11.3)	(16.5)	(14.3)	(10.2)
Other income ¹	18.3	12.0	10.8	11.9	24.5	12.8	11.6
Product cash margin	179.7	184.5	199.8	192.7	202.7	180.1	176.9
Investment yield – shareholders' funds	71.8	78.2	76.6	68.4	62.6	67.3	67.6
Cash earnings	251.5	262.7	276.4	261.1	265.3	247.4	244.5
Normalised capital growth	78.1	70.8	59.7	53.9	51.1	52.1	48.4
Normalised Cash Operating Earnings	329.6	333.5	336.1	315.0	316.4	299.5	292.9
Personnel expenses	(34.1)	(33.9)	(33.8)	(31.7)	(30.1)	(29.8)	(26.9)
Other expenses	(17.6)	(19.9)	(19.3)	(19.1)	(19.3)	(18.8)	(17.1)
Total expenses	(51.7)	(53.8)	(53.1)	(50.8)	(49.4)	(48.6)	(44.0)
Normalised EBIT	277.9	279.7	283.0	264.2	267.0	250.9	248.9
Asset and liability experience ²	(234.3)	(60.5)	15.5	34.9	43.9	(65.5)	39.6
New business strain ²	(35.9)	(21.5)	(37.4)	(22.0)	(35.4)	(45.9)	3.4
Total investment experience	(270.2)	(82.0)	(21.9)	12.9	8.5	(111.4)	43.0
Net profit after investment experience before tax	7.7	197.7	261.1	277.1	275.5	139.5	291.9
Reconciliation of investment experience to capital growth							
Asset and liability experience	(234.3)	(60.5)	15.5	34.9	43.9	(65.5)	39.6
Normalised capital growth	78.1	70.8	59.7	53.9	51.1	52.1	48.4
Asset and liability capital growth	(156.2)	10.3	75.2	88.8	95.0	(13.4)	88.0
Performance analysis							
Cost to income ratio ³ (%)	15.7%	16.1%	15.8%	16.1%	15.6%	16.2%	15.0%
Net assets – average ⁴ (\$m)	3,151	3,127	2,959	2,586	2,468	2,487	2,441
Normalised ROE (pre-tax) (%)	17.5%	18.0%	19.0%	20.6%	21.5%	20.3%	20.3%

¹ Other income includes Accurium revenue and Life Risk revenue (premiums net of claims).

² Investment experience comprises asset and liability experience and net new business strain. Refer to pages 50 and 51 for more detail.

³ Cost to income ratio calculated as total expenses divided by Normalised Cash Operating Earnings.

⁴ Net assets – average calculated on a monthly basis.

Life financial results

\$m	1H19	2H18	1H18	2H17	1H17	2H16	1H16
Sales							
Fixed term sales	1,698.9	1,278.6	1,867.2	1,382.4	1,641.9	1,357.4	1,412.4
Lifetime sales	441.6	432.6	422.3	432.7	554.2	352.7	228.7
Life annuity sales	2,140.5	1,711.2	2,289.5	1,815.1	2,196.1	1,710.1	1,641.1
Maturities and repayments	(1,647.0)	(1,076.7)	(1,531.3)	(1,363.6)	(1,747.2)	(1,240.2)	(1,370.6)
Life annuity flows	493.5	634.5	758.2	451.5	448.9	469.9	270.5
Closing Life annuity book	12,323.7	11,728.3	11,115.8	10,322.2	9,784.9	9,558.5	8,868.4
Annuity book growth¹	4.2%	6.2%	7.3%	4.7%	4.7%	5.4%	3.1%
Other Life sales	599.8	520.4	1,034.5	378.9	562.3	588.8	409.7
Other maturities and repayments	(509.6)	(306.5)	(844.8)	(360.9)	(167.8)	(337.5)	(333.1)
Other Life flows	90.2	213.9	189.7	18.0	394.5	251.3	76.6
Closing GIR ² and Challenger Index Plus Fund liabilities	2,172.3	2,135.0	1,909.3	1,687.8	1,633.2	1,315.5	1,035.1
Other Life net book growth¹	4.2%	12.7%	11.2%	1.4%	30.0%	26.6%	8.1%
Total Life sales	2,740.3	2,231.6	3,324.0	2,194.0	2,758.4	2,298.9	2,050.8
Total maturities and repayments	(2,156.6)	(1,383.2)	(2,376.1)	(1,724.5)	(1,915.0)	(1,577.7)	(1,703.7)
Total Life net flows	583.7	848.4	947.9	469.5	843.4	721.2	347.1
Closing total Life book ³	14,496.0	13,863.3	13,025.1	12,010.0	11,418.1	10,874.0	9,903.5
Total Life book growth¹	4.2%	7.1%	7.9%	4.3%	7.8%	7.5%	3.6%
Assets							
Closing investment assets	18,624	18,085	17,040	15,677	14,607	14,112	13,147
Fixed income and cash ⁴	11,802	11,380	10,984	10,028	9,434	8,537	8,409
Property	3,661	3,714	3,388	3,350	3,205	3,220	3,120
Equity and other investments	2,090	1,807	1,532	1,262	1,110	1,059	928
Infrastructure	739	681	566	510	538	553	545
Average investment assets⁵	18,292	17,582	16,470	15,150	14,287	13,369	13,002
Liabilities							
Closing liabilities	15,702	15,072	14,235	13,209	12,148	11,796	10,825
Annuities, GIR ² and Challenger Index Plus Fund	14,194	13,530	12,568	11,802	11,133	10,166	9,786
Capital Notes	805	805	805	542	345	345	345
Subordinated debt	405	407	401	392	556	574	584
Average liabilities⁵	15,404	14,742	13,774	12,736	12,034	11,085	10,715
Margins⁶							
Investment yield – policyholders' funds	4.69%	4.97%	5.25%	5.44%	5.62%	5.80%	5.84%
Interest expense	(2.82%)	(2.87%)	(2.83%)	(2.88%)	(2.92%)	(3.06%)	(3.16%)
Distribution expense	(0.12%)	(0.12%)	(0.14%)	(0.16%)	(0.23%)	(0.22%)	(0.16%)
Other income	0.20%	0.14%	0.13%	0.16%	0.34%	0.19%	0.18%
Product cash margin	1.95%	2.12%	2.41%	2.56%	2.81%	2.71%	2.70%
Investment yield – shareholders' funds	0.78%	0.89%	0.92%	0.92%	0.87%	1.01%	1.03%
Cash earnings	2.73%	3.01%	3.33%	3.48%	3.68%	3.72%	3.73%
Normalised capital growth	0.84%	0.82%	0.72%	0.71%	0.71%	0.79%	0.74%
Normalised Cash Operating Earnings (COE)	3.57%	3.83%	4.05%	4.19%	4.39%	4.51%	4.47%

¹ Book growth percentage represents Life annuity net flows and Other Life net flows over the period divided by the opening Life annuity book, Guaranteed Index Return and Challenger Index Plus Fund liabilities.

² Guaranteed Index Return (GIR).

³ Life annuity book, GIR and Challenger Index Plus Fund liabilities.

⁴ Includes average NIM (1H19 \$68m, 1H18 \$88m, 1H17 \$98m, 1H16 \$123m).

⁵ Average investment assets and average liabilities calculated on a monthly basis.

⁶ Ratio of Normalised Cash Operating Earnings components divided by average investment assets.

Life financial results

Life quarterly sales and investment assets

\$m	Q2 19	Q1 19	Q4 18	Q3 18	Q2 18	Q1 18
Life sales						
Fixed term sales	750	949	735	544	980	887
Lifetime sales ¹	220	222	216	217	212	210
Life annuity sales	970	1,171	951	761	1,192	1,097
Maturities and repayments	(846)	(801)	(632)	(445)	(786)	(745)
Life annuity flows	124	370	319	316	406	352
Annuity book growth²	1.0%	3.2%	3.1%	3.1%	3.9%	3.4%
Other Life sales	205	395	182	338	562	473
Other maturities and repayments	(170)	(340)	(281)	(25)	(543)	(302)
Other Life flows	35	55	(99)	313	19	171
Other Life net book growth²	1.6%	2.6%	(5.8%)	18.5%	1.1%	10.1%
Total Life sales	1,175	1,566	1,133	1,099	1,754	1,570
Total maturities and repayments	(1,016)	(1,141)	(913)	(470)	(1,329)	(1,047)
Total Life net flows	159	425	220	629	425	523
Total Life book growth²	1.1%	3.1%	1.9%	5.2%	3.5%	4.4%
Life						
Fixed income and cash ³	12,015	11,913	11,728	11,413	11,076	11,096
Property ³	3,739	3,504	3,840	3,718	3,655	3,305
Equity and other	2,113	2,188	1,799	1,868	1,643	1,594
Infrastructure ³	757	742	718	673	666	491
Total Life investment assets	18,624	18,347	18,085	17,672	17,040	16,486
Average Life investment assets⁴	18,380	18,217	17,824	17,362	16,884	16,059

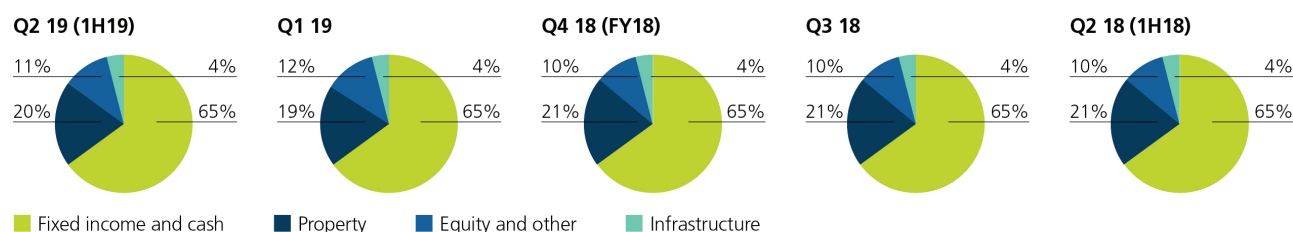
¹ Lifetime sales includes CarePlus, a lifetime annuity specifically designed for the aged care market.

² Book growth percentage represents net flows for the period divided by opening book value for the financial year.

³ Fixed income, property and infrastructure reported net of debt.

⁴ Average Life investment assets calculated on a monthly basis.

Life asset allocation



Life financial results

Life focuses on the retirement spending phase of superannuation by providing products that convert retirement savings into safe and secure income for life.

As Australia’s largest annuity provider, Challenger Life Company Limited (CLC) provides reliable guaranteed incomes to 75,000 Australian retirees.

Life’s annuity products appeal to retirees because they provide security and certainty of guaranteed¹ income while protecting against risks from market downturns and inflation. Lifetime annuities protect retirees from the risk of outliving their savings by paying guaranteed income for life.

The retirement incomes Life pays are backed by a high-quality investment portfolio, predominantly fixed income and commercial property investments. These investments generate investment income which is used to fund retirement incomes paid to customers.

Life’s products are distributed via financial advisers, both independent and within the major hubs. Being an independent product manufacturer, Life’s products are included on all major hub Approved Product Lists (APLs) and are available on leading investment and administration platforms.

Life is the market leader in Australian retirement incomes, with a 77%² annuity market share, and has won the Association of Financial Advisers Annuity Provider of the Year for the last 10 consecutive years.

Life also has an annuity relationship with Mitsui Sumitomo Primary Life Insurance Company Limited (MS Primary), a leading provider of Australian dollar-denominated annuities in Japan (refer to page 25 for more detail).

The Life business includes Accurium, one of Australia’s leading providers of Self-Managed Superannuation Fund (SMSF) actuarial certificates and participates in wholesale reinsurance longevity and mortality transactions (refer to page 21 for more detail).

CLC is an APRA-regulated entity and its financial strength is rated by Standard & Poor’s with an ‘A’ rating and positive outlook. CLC capital strength is outlined on pages 39 and 40.

Normalised EBIT and ROE

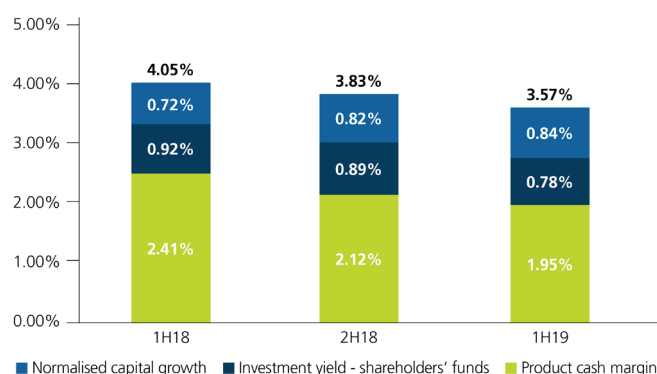
Life’s normalised EBIT was \$278m in 1H19 and decreased by \$5m (2%) on 1H18. The decrease in EBIT reflects a \$6m reduction in normalised Cash Operating Earnings (COE), partly offset by a \$1m decrease in expenses.

Life’s normalised ROE (pre-tax) was 17.5% in 1H19 and decreased by 150 bps on 1H18. Life’s normalised ROE reflects the lower 1H19 earnings and higher levels of capital held. Life continues to have a strong regulatory capital position with a PCA ratio of 1.54 times at 31 December 2018 (refer to pages 40 and 39 for more detail).

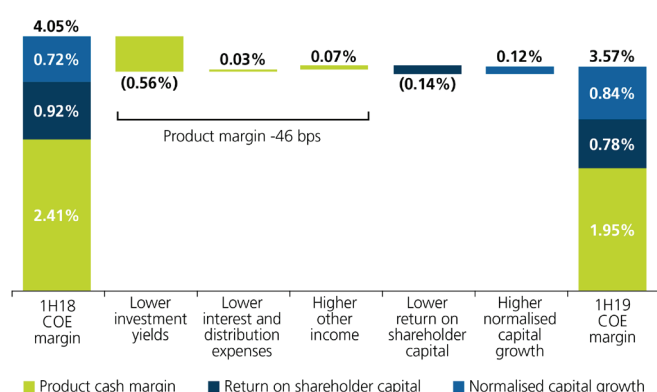
Normalised Cash Operating Earnings (COE) and COE margin

1H19 normalised COE was \$330m and decreased by \$6m (2%) on 1H18. Normalised COE was impacted by lower distributions on Challenger Life’s absolute return fund portfolio, which forms part of Life’s equity investments. In 1H19, the cash distributions on Life’s absolute return portfolio (average AUM of \$802m) were \$10m, representing a yield of 1.3% for the half year. This was approximately \$13m lower than the cash distributions received on the portfolio in 1H18.

Life COE margin composition



1H18 to 1H19 COE margin



Life’s 1H19 COE margin of 3.57% was 48 bps lower than 1H18. The change in COE margin was a result of:

- Lower product cash margin -46 bps. The product cash margin includes lower investment yields of 56 bps, including lower absolute return fund distributions (14 bps) and compressed yields across infrastructure, property and fixed income, partially offset by lower interest and distribution expenses (3 bps) and higher other income (7 bps).

The product margin has also been impacted by a change in product mix, with an increased proportion of lower COE margin Japanese annuity and institutional GIR business. The COE margin for Japanese annuity business is lower than domestic annuities as Challenger does not incur any distribution or administration costs in its expense base, with all costs effectively included in the COE margin. The COE

¹ The word ‘guaranteed’ means payments are guaranteed by Challenger Life Company Limited (CLC) from assets of its relevant statutory fund.

² Strategic Insights – September 2018 – based on annuities in force at 30 September 2018.

margin for institutional GIR business is lower than domestic business as the product is backed entirely by high-grade fixed income.

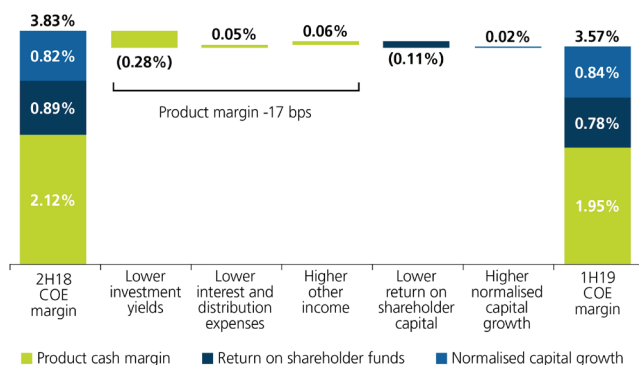
The 1H19 average liability mix was as follows:

- Domestic annuities 77% (1H18 79%);
- Japanese annuities 8% (1H18 6%); and
- Institutional GIR 15% (1H18 15%).

Despite COE margins varying across different products, all products target an 18% pre-tax ROE.

- Lower income on shareholder capital -14 bps. The income on shareholder capital fell due to a lower return on shareholder capital more than offsetting the increase in average shareholder capital, which increased by 7% following the equity placement to MS&AD in August 2017. The return on shareholder capital was 4.9% in 1H19, down from 5.6% in 1H18.
- Higher normalised capital growth +12 bps due to a higher allocation to equities and infrastructure.

2H18 to 1H19 COE margin



Life's 1H19 COE margin was 3.57% and decreased by 26 bps on 2H18 (3.83%). The change in COE margin was a result of:

- Lower product cash margin -17 bps. The product cash margin includes lower investment yields of 28 bps, due to lower absolute return fund distributions (11 bps) and lower investment yields on other assets (17 bps), including Life's reallocation from property to fixed income (7 bps), partially offset by a reduction in interest and distribution expenses (5 bps) and an increase in other income (6 bps).

The increase in other income represents higher income on Life Risk, being Challenger's wholesale longevity and mortality transactions.

The product margin has been impacted by a change in product mix, with an increased proportion of lower COE margin Japanese and institutional GIR business. The COE margin for Japanese annuity business is lower than domestic annuities as Challenger does not incur any distribution or administration costs in its expense base, with all costs included in the COE margin. The COE margin for institutional GIR business is lower than domestic business as the product is backed entirely by high-grade fixed income.

The 1H19 average liability mix was as follows:

- Domestic annuities 77% (2H18 77%);
- Japanese annuities 8% (2H18 7%); and
- Institutional GIR 15% (2H18 16%).

Despite COE margins varying across different products, all products target an 18% pre-tax return on equity.

- Lower income on shareholder capital -11 bps. The income on shareholder capital decreased due to a lower return on shareholder capital, with average shareholder capital relatively stable from 2H18. The return on shareholder capital was 4.9% in 1H19, down from 5.6% in 2H18.
- Higher normalised capital growth +2 bps. Normalised capital growth increased due to a higher allocation to equities.

1H19 normalised COE includes other income of \$18m, and includes Accurium revenue of \$3m and Life Risk revenue of \$15m. Life Risk revenue represents premiums net of expected claims on wholesale reinsurance longevity and mortality transactions (refer below for more detail).

Life Risk

Undertaking wholesale longevity and mortality transactions is a natural business extension for the Life business. Life is participating in established markets, has specialised expertise and is taking a disciplined approach to the wholesale Life Risk opportunity.

1H19 Life COE includes \$15m of income from Life Risk transactions, representing premiums net of expected claims, up from \$7m in 1H18.

The present value of future profits arising from the Life Risk portfolio was \$475m at 31 December 2018, up \$2m in 1H19.

The Life Risk portfolio has an average duration of 15 years.

Accurium

Accurium is one of Australia's leading providers of SMSF actuarial certificates. An actuarial certificate is required by an SMSF when one (or more) members are in the retirement phase of superannuation and one (or more) are in the savings (accumulation) phase of superannuation. Accurium's 1H19 revenue was \$3m (1H18 \$4m) and is included in other income within Life's Normalised Cash Operating Earnings.

Expenses

1H19 Life expenses were \$52m and decreased by \$1m (3%) on 1H18. Personnel expenses were \$34m and unchanged from 1H18, and other expenses reduced by \$1m.

Life's 1H19 cost to income ratio was 15.7% and improved by 10 bps on 1H18.

Investment experience overview

Challenger Life is required by accounting standards and prudential standards to value all assets and liabilities supporting the Life business at fair value. This gives rise to fluctuating valuation movements on assets and policy liabilities being recognised in the statutory profit and loss, particularly during periods of market volatility. As Challenger is generally a long-term holder of assets, due to them being held to match the term of liabilities, Challenger takes a long-term view of the expected capital growth of the portfolio rather than focusing on short-term movements.

Investment experience removes the volatility arising from asset and liability valuation movements so to better reflect the underlying performance of the Life business.

Investment experience includes both assets and policy liability experience and net new business strain.

1H19 investment experience was a loss of \$270m (pre-tax), comprising a \$234m loss on the fair value of Life's assets and policy liabilities, and a \$36m loss in relation to net new business strain.

(\$m)	Actual capital growth	Normalised capital growth	Investment experience
Fixed income	(68)	21	(47)
Property	39	(37)	2
Equity and other	(110)	(47)	(157)
Infrastructure	4	(15)	(11)
Policy liability	(21)	-	(21)
Assets and policy liability experience	(156)	(78)	(234)
New business strain	(36)	-	(36)
Total investment experience (pre-tax)	(192)	(78)	(270)

Asset and liability experience

Asset and liability experience is calculated as the difference between actual investment gains/losses (both realised and unrealised) and normalised capital growth in relation to assets, plus any economic and actuarial assumption changes in relation to policy liabilities for the period.

Asset and liability experience includes the impact of changes in macroeconomic variables on the valuation of Life's assets and liabilities and assumption changes to bond yields and inflation factors, expense assumptions, and other factors applied in the valuation of life contract liabilities.

Asset and liability experience was -\$234m in 1H19, comprising:

- fixed income (-\$47m) – reflecting a ~15 bps expansion in credit spreads across the fixed income portfolio, consistent with movements in credit indices. As Challenger is generally a hold-to-maturity investor, on average unrealised revaluations on Challenger's fixed income portfolio are expected to reverse over time. The credit default experience recognised in the profit and loss in 1H19 was -\$17m or -15 bps;
- property \$2m – reflecting a 1% increase in Life's direct property portfolio valuations in 1H19, which was consistent with Life's 2% per annum normalised growth assumption;

- equity portfolio (-\$157m) – reflecting lower domestic and international equity markets. The valuation loss on the equity portfolio was \$110m reflecting a 5.2% loss in 1H19 which was broadly consistent with domestic and international equity indices. Challenger's normalised growth assumption for equities is 4.5% per annum or \$47m for the period, with equity returns underperforming the assumption and resulting in negative equity investment experience;
- infrastructure (-\$11m) – reflecting infrastructure underperforming Challenger's normalised growth assumption of 4% per annum or \$15m for the period. Positive valuation outcomes for unlisted investments were offset by market losses on listed infrastructure portfolios; and
- policy liability (-\$21m) – reflecting changes in economic and actuarial assumptions, including changes to bond yields used to hedge policy liabilities, expected inflation rates, and expense assumptions on policy liabilities (\$49m), offset by a illiquidity premium gain (\$28m).

Illiquidity premium

In accordance with prudential standards and Australian Accounting Standards, Challenger Life values term annuities at fair value and lifetime annuities using a risk-free discount rate, both of which are based on the Australian Government bond curve plus an illiquidity premium.

Movements in credit spreads impact the fair value of assets as well as the illiquidity premium which forms part of the discount rate used to value policy liabilities.

The illiquidity premium used to value policy liabilities is calculated in accordance with AASB 1038 Life Insurance Contracts and AASB 139 Financial Instruments: Recognition and Measurement.

In 1H19, 'A' rated corporate bond spreads relative to Australian Government securities expanded by approximately 19 bps, which increased the liability discount rate used to value annuity liabilities at fair value and resulted in a lower annuity liability. As a result, 1H19 investment experience includes a gain of \$28m due to a change in the illiquidity premium used to value policy liabilities.

New business strain

In accordance with Australian Accounting Standards, Challenger Life values term annuities at fair value and lifetime annuities using a risk-free discount rate, both of which are based on the Australian Commonwealth Government bond curve plus an illiquidity premium.

Life offers annuity rates which are higher than these rates. As a result, on writing new annuity business, a loss is recognised when issuing the annuity contract as a result of a lower discount rate used to value the liability, together with future maintenance expenses.

New business strain is a non-cash item and subsequently reverses over the future period of the contract. The new business strain reported in the period represents the non-cash loss on new sales net of the reversal of the new business strain of prior period sales. The 1H19 net new business strain was a loss of \$36m (1H18 \$37m).

Life sales and AUM

Total Life sales

Total Life sales were \$2.7bn in 1H19 and decreased by 18% or \$0.6bn on 1H18. The decrease was due to lower annuity sales (down \$0.2bn) and lower other Life sales (down \$0.4bn). Life sales, were lower than 1H18 due to lower MS Primary (Japan) annuity sales (down \$0.2bn) and lower other (institutional GIR) sales, which reflects the timing of maturities and subsequent reinvestment.

Annuity sales

Both Challenger's term and lifetime annuity sales are benefiting from favourable demographic trends, including an ageing population and retiree preferences for secure income streams in retirement. These favourable demographic trends are being leveraged by Challenger's market-leading retirement income brand, highly rated distribution team, thought leadership, research and product capability.

Challenger's annuity sales are also benefiting from new distribution relationships, allowing access to Challenger annuities via leading investment and administration platforms.

Commencing in FY16, Challenger began making its annuities available on leading wealth manager administration and investment platforms, allowing superannuation funds and platforms to easily and efficiently combine lifetime income streams with other retirement products to provide income for life.

Challenger annuities are now available on a range of investment and administration platforms and are being made available by a number of superannuation funds, including AMP, BT, Colonial First State and VicSuper.

During 1H19, Challenger made its annuities available on the new BT Panorama platform. Challenger also formed annuity relationships with both Netwealth and Hub24 and expects to launch its annuities on their platforms in 2H19.

Once Challenger annuities are launched on Netwealth and Hub24, approximately 70% of Australian financial advisers will have access to Challenger annuities via their primary investment and administration platform.

These platform and distribution initiatives significantly broaden access to Challenger annuities and are making annuities more easily accessible by superannuation funds, financial advisers and their clients.

In November 2016, Challenger formed an annuity relationship with Mitsui Sumitomo Primary Life Insurance Company Limited (MS Primary), a leading provider of Australian dollar annuity and life insurance products in Japan (refer to page 25 for more information). The MS Primary annuity relationship provides access to the Japanese foreign currency annuities market and is helping to diversify Challenger's distribution channels and product offering.

Term annuity sales

1H19 term annuity sales were \$1.7bn and decreased by 9% (\$0.2bn) on 1H18. Term annuity sales decreased as a result of lower MS Primary (Japan) annuity sales, which reduced by \$0.2bn. MS Primary annuity sales reduced following an increase in US interest rates, making US dollar-denominated annuities relatively more attractive than Australian dollar-denominated annuities. MS Primary annuity sales were 8% of Life's 1H19 term annuity sales, down from 17% in 1H18 and 11% in 2H18.

Term annuity sales, excluding MS Primary, increased by 3%.

Lifetime annuity sales

Lifetime annuity sales were \$442m in 1H19 and increased by 5% on 1H18. 1H19 lifetime sales comprised Liquid Lifetime sales of \$273m and CarePlus sales of \$169m.

Liquid Lifetime sales were unchanged from 1H18. Growth in Lifetime sales is being impacted by uncertainty surrounding new means test rules that are expected to commence from 1 July 2019¹, with existing rules continuing until then.

CarePlus is a lifetime annuity, specifically designed for the aged care market and was launched in early FY16. CarePlus sales are growing strongly and were \$169m in 1H19, an increase of 14% on 1H18. CarePlus sales are benefiting from an ageing population and advisers having a greater understanding of the CarePlus product and benefits it provides their aged care clients. The number of financial advisers writing CarePlus during 1H19 increased by 15%.

Focus on long-term annuity sales

Challenger is focused on growing its long-term annuity business as it embeds significant value for Challenger shareholders. Approximately 29% of 1H19 annuity sales were either lifetime annuities or MS Primary annuities, up from 17% two years ago (FY16).

Lifetime and long-term MS Primary annuities accounted for 45% of total annuities in force at 31 December 2018, up from only 18% five years ago (1H14).

Long-term annuity business is attractive for Challenger as it:

- lengthens the annuity book tenor;
- improves the maturity outlook;
- assists future book growth;
- enhances overall book quality; and
- allows investing in longer term less liquid assets generating an illiquidity premium.

New business tenor

With Challenger's focus on long-term annuities, the tenor of new business sales has been increasing over the last few years. New business tenor has increased by over two years from 6.4 years five years ago (1H14), to 8.6 years in 1H19.

New business tenor in 1H19 (8.6 years) was, however, lower than in 1H18 (9.3 years) as a result of lower fixed term annuity sales in Japan.

¹ The new means test rules are subject to legislation being passed by parliament.

Other Life sales

Other Life sales represent Challenger's institutional Guaranteed Index Return (GIR) product and the Challenger Index Plus Fund, which is a liquid GIR product backed by high-grade liquid fixed income.

1H19 other Life sales were \$0.6bn, representing existing GIR client mandate rollovers.

1H19 other Life sales were \$0.4bn lower than 1H18 (\$1.0bn) due to the timing of GIR mandate maturities and subsequent reinvestments. Reflecting this, 1H19 GIR maturities were \$0.3bn lower than 1H18.

Life book liability maturity profile

Long-term annuity business is attractive for Challenger as it improves the maturity outlook and enhances overall net book growth.

The annuity maturity rate, which represents annuity maturities and repayments (excluding interest payments) divided by the opening period annuity liability, was 14% in 1H19, down from 15% in 1H18.

The annuity maturity rate is expected to reduce further in FY19, falling to approximately 24% of the opening period liability (FY18 25%). As a result, the maturity rate in 2H19 is expected to be ~10%, with seasonality impacts resulting in a higher maturity rate in the first half.

Net book growth

Life annuity book growth

1H19 Life annuity net flows (i.e. annuity sales less capital repayments) were \$494m.

Based on the opening Life annuity book liability (\$11,728m), 1H19 annuity book growth was 4.2% (1H18 7.3%). The lower 1H19 annuity book growth reflects lower MS Primary annuity sales (refer to page 23 for more detail), which reduced annuity book growth by approximately \$0.2bn (or ~2% Life annuity book growth in 1H19).

Other Life book growth

Other Life net flows (i.e. other Life sales less capital repayments) represent net flows on Challenger's institutional GIR product and were \$90m in 1H19, down from \$190m in 1H18.

Total Life book growth

1H19 total Life net flows across both annuities and other products (GIR and Challenger Index Plus Fund) were \$584m, and include annuity net flows of \$494m and other net flows of \$90m.

Based on the opening 1H19 annuity liability (\$11,728m) and GIR and Challenger Index Plus Fund liability (\$2,135m), 1H19 total Life book growth was 4.2%, down from 7.9% in 1H18.

Average AUM

Life's average investment assets were \$18.3bn in 1H19 and increased by 4% (or \$0.7bn) in 1H19. The increase in average investment assets in 1H19 reflects total Life net flows of \$0.6bn.

Mitsui Sumitomo Primary Life Insurance Company Limited (MS Primary) annuity relationship

Consistent with Challenger's strategy to diversify its range of products and expand its distribution relationships, in November 2016 Challenger commenced a new annuity relationship with Mitsui Sumitomo Primary Life Insurance Company Limited (MS Primary).

MS Primary provides annuity and life insurance products to Japanese customers and is part of MS&AD Insurance Group Holdings Inc., a Nikkei 225 company.

Japan has one of the world's most rapidly ageing populations who are looking for income from longer dated products due to the low Japanese interest rate environment. This has driven a significant increase in demand for foreign currency annuities.

In August 2016, MS Primary launched an innovative Australian dollar product with a 20-year fixed rate in Japan. The product is being distributed through the Japanese bancassurance channel.

In relation to reinsuring this product, from 1 November 2016 Challenger commenced issuing Australian dollar fixed rate annuities with a 20-year term in order to support the reinsurance agreement with MS Primary. Challenger provides a guaranteed interest rate and assumes the investment risk on a portion of each new policy issued by MS Primary.

During FY18, Challenger and MS Primary developed a new Australian dollar lifetime annuity product for the Japanese market, with Challenger reinsuring a portion of each new policy issued by MS Primary.

For FY19, Challenger will reinsure the initial Australian dollar 20-year fixed term annuity product and the new Australian dollar lifetime annuity.

The MS Primary annuity portfolio is invested in broadly similar key asset classes that Challenger currently invests in and is accounted for under Australian Generally Accepted Accounting Principles and Challenger's normalised profit framework, consistent with Challenger's Life business.

MS Primary is responsible for marketing and providing the products in Japan, including making payments to policyholders. Challenger guarantees a rate to MS Primary, which effectively includes Challenger's contribution toward marketing, distribution and administration costs in Japan. As such, for these products Challenger incurs limited distribution and operational costs as part of its direct expense base.

The annuity relationship with MS Primary generated 8% of Challenger's 1H19 annuity sales, down from 17% in 1H18. Sales of Australian dollar annuity products in Japan have moderated following an increase in US interest rates above Australian interest rates, which has increased the relative attractiveness of US dollar annuity products.

Under the reinsurance agreement, the guaranteed interest rate on new business can be revised and there are mechanisms to regulate volumes between MS Primary and Challenger. The agreement also includes the usual termination rights for both parties, including material breach, failure to make payments and events that may be triggered by changes in MS Primary's regulatory environment.

Broadening the relationship with MS&AD

MS&AD's subsidiary, MS Primary, is a key Challenger annuity distribution partner. Challenger is broadening its relationship with MS&AD and both parties have identified potential growth opportunities.

In FY17, Challenger opened a Tokyo office to support the MS&AD relationship and to develop distribution opportunities in the region.

In recognition of the strategic importance of the MS&AD relationship and to facilitate Challenger's future growth, a \$500m equity placement to MS&AD was completed on 23 August 2017.

The equity placement represented 6.3% of Challenger's issued capital. MS&AD have subsequently increased its Challenger shareholding to ~10% of issued capital (as at 6 December 2018) via on-market acquisitions.

MS&AD's equity investment in Challenger underpins the strength of the relationship and they are supportive of Challenger's ongoing growth strategy.

Retirement income regulatory reforms update

The Australian Government has proposed a range of reforms to enhance the retirement phase of superannuation and better align it with the overall objective of the system – providing income in retirement to substitute or supplement the age pension.

These reforms include:

- removing impediments to longevity product development through the Retirement Income Streams Review;
- introducing new means test rules for lifetime products; and
- creating a Retirement Income Framework.

New retirement income rules – innovative superannuation income streams

As part of the Federal Budget in May 2016, the Government announced reforms to enable a wider range of retirement income products to be offered. The new product rules removed regulatory impediments to certain longevity products, including Deferred Lifetime Annuities (DLAs) and group self-annuitisation products. These products are expected to provide the building blocks for superannuation funds to develop retirement income solutions for their clients.

The new retirement income product regulations allow a range of new longevity products and came into effect on 1 July 2017.

New means test rules for lifetime products

In the May 2016 Federal Budget, the Government also committed to consult on the social security means test arrangements for retirement income streams. The Department of Social Services undertook a review and consulted with stakeholders during 2017 and 2018 on the means test rules for lifetime retirement income streams, including lifetime annuities and new products, such as DLAs. The means test rules govern the eligibility and level of access to the Government-provided age pension and are based on a retiree's level of income and/or assets owned.

In November 2018, the Government introduced the *Social Services Legislation Amendment (Supporting Retirement Incomes)* Bill into parliament, which is designed to support the take up of lifetime income stream products.

The Bill is currently being debated by parliament, and has been referred to a Senate Inquiry which is due to report on 11 February 2019. If passed the proposed new means test rules would commence on 1 July 2019. Complying products would be assessed as income at 60% of all pooled lifetime product payments, and as an asset at 60% of the purchase price of the product until 84, or a minimum of five years, and then 30% for the rest of the person's life.

If passed, these new rules will encourage the development of innovative products that can help retirees manage the risk of outliving their income, while ensuring a fair and consistent means test treatment for all retirement income products.

The proposed new means test rules do not impact term annuities, which accounted for ~80% of Challenger 1H19 annuity sales. Both the existing and proposed means test rules support lifetime annuity use.

New Retirement Income Framework

The Government has noted the retirement phase of the superannuation system is under-developed and that there is limited availability and take-up of products that manage the risks people face in retirement, in particular the risk of outliving their savings. As a result, currently most people invest their superannuation savings in an account-based pension and withdraw only legislated minimum amounts, without being aware of all the choices.

The Government has proposed a Retirement Income Framework to increase flexibility and choice for retirees and help boost living standards. The framework is intended to ensure retirees have more retirement income products to choose from and the information they need to make a choice.

The first stage of the proposed Retirement Income Framework is to include a Retirement Income Covenant in the *Superannuation Industry (Supervision) Act 1993*, which would require superannuation trustees to have a retirement income strategy in place for members by 1 July 2020.

The Government released a position paper on the Retirement Income Covenant in May 2018 with industry consultation closing in June 2018. The position paper notes the proposed Retirement Income Framework is intended to:

- enable individuals to increase their standard of living in retirement through increased availability and take-up of products that more efficiently manage longevity risk, and in doing so increase the efficiency of the superannuation system and better align the system with its objective; and
- enable trustees to provide individuals with an easier transition into retirement by offering retirement income products that balance competing objectives of high income, flexibility and risk management.

Life balance sheet

\$m	1H19	FY18	1H18	FY17	1H17	FY16	1H16
Assets							
Life investment assets							
Cash and equivalents	1,518.3	1,671.6	950.1	1,430.1	1,172.7	1,990.6	1,631.9
Asset backed-securities	5,062.2	4,763.1	4,542.2	4,416.7	4,362.8	4,138.1	4,044.5
Corporate credit	5,434.0	5,293.1	5,584.2	4,568.2	3,985.4	3,186.8	2,811.2
Fixed income and cash (net)	12,014.5	11,727.8	11,076.5	10,415.0	9,520.9	9,315.5	8,487.6
Australian – Office	2,097.1	2,011.3	1,855.6	1,670.6	1,563.1	1,498.4	1,385.2
Australian – Retail	954.1	954.8	962.5	941.1	921.3	962.0	986.1
Australian – Industrial	180.4	159.5	152.0	170.1	195.6	188.3	98.6
Japanese	314.6	297.4	234.0	229.3	226.9	242.4	203.6
Other	193.2	417.5	450.5	396.7	421.4	258.9	389.7
Property (net)	3,739.4	3,840.5	3,654.6	3,407.8	3,328.3	3,150.0	3,063.2
Equity and other investments	2,113.4	1,799.1	1,642.7	1,360.1	1,231.6	1,079.0	1,060.0
Infrastructure (net)	757.0	717.7	666.3	494.4	526.4	567.2	536.4
Life investment assets	18,624.3	18,085.1	17,040.1	15,677.3	14,607.2	14,111.7	13,147.2
Other assets (including intangibles)	560.9	509.5	644.1	479.7	389.4	516.0	460.1
Total assets	19,185.2	18,594.6	17,684.2	16,157.0	14,996.6	14,627.7	13,607.3
Liabilities							
Life annuity book	12,323.7	11,728.3	11,115.8	10,322.2	9,784.9	9,558.5	8,868.4
GIR ¹ and Challenger Index Plus Fund liabilities	2,172.3	2,135.0	1,909.3	1,687.8	1,633.2	1,315.5	1,035.1
Subordinated debt	400.6	403.7	405.3	393.6	384.8	576.7	576.5
Challenger Capital Notes	805.0	805.0	805.0	805.0	345.0	345.0	345.0
Other liabilities	412.9	317.7	296.1	277.4	295.3	342.6	215.2
Total liabilities	16,114.5	15,389.7	14,531.5	13,486.0	12,443.2	12,138.3	11,040.2
Net assets	3,070.7	3,204.9	3,152.7	2,671.0	2,553.4	2,489.4	2,567.1

¹ Guaranteed Index Return (GIR).

Life investment portfolio overview

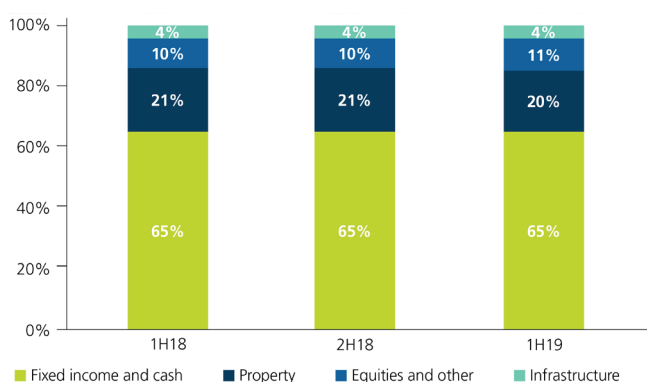
Life maintains a high-quality investment portfolio in order to generate cash flows to meet future annuity obligations.

Life reviews its investment asset allocation based on the relative value of different asset classes, expected ROE, and the tenor of annuity sales as Life maintains a cash flow matched portfolio. Accordingly, Life's investment asset allocation may vary from time to time.

Life's investment assets at 31 December 2018 comprised:

- fixed income and cash 65%;
- property 20%;
- equities and other investments 11%; and
- infrastructure 4%.

Detailed information on Life's investment assets is included on pages 28 to 37.



Fixed income portfolio overview

Life's fixed income and cash portfolio was \$12.0bn (net of debt) at 31 December 2018, and increased by 2% from \$11.7bn at 30 June 2018.

The fixed income and cash portfolio represented 65% of Life's investment assets at 31 December 2018.

Challenger manages credit risk by maintaining a high-quality investment portfolio and applying a rigorous investment process. The fixed income portfolio is diversified across different industries, rating bands, asset classes and geographies.

Life's policy liability cash flows are long term in nature, and contracted, providing the opportunity to invest in longer dated and less liquid fixed income investments, allowing Life to earn an illiquidity premium on fixed income.

The fixed income portfolio comprises over 1,400 different securities with 77% of the fixed income portfolio investment grade (i.e. BBB or higher), up from 75% at 30 June 2018.

A total of 79% of the fixed income portfolio is externally rated (Standard & Poor's, Fitch or Moody's) and 21% based on internal ratings calibrated to Standard & Poor's or Moody's ratings framework.

The fixed income and cash portfolio is predominantly Australian focused, with approximately 70% of the fixed income portfolio invested in Australian-based securities.

Approximately 22% of Life's fixed income portfolio represents fixed income investments originated by Challenger. Direct fixed income origination includes senior secured loans, asset backed securities and commercial real estate lending. Life's direct origination capability provides opportunities to capture additional earnings including illiquidity premiums. The average direct fixed income illiquidity premium generated over the last five years has been between 1% and 2%.

Fixed income credit default experience

Challenger's normalised growth assumption for fixed income is -35 bps, representing an allowance for credit default losses. In 1H19, the credit default loss recognised in investment experience was -15 bps, (-\$17m), outperforming the normalised growth assumption.

Over the past five years, the average credit default loss experience recognised in investment experience has been -13 bps per annum.

Detailed disclosure of Life's fixed income portfolio is included on pages 29 to 32. The fixed income disclosures include the following tables:

1. Table 1 – fixed income portfolio overview;
2. Table 2 – fixed income portfolio by credit rating;
3. Table 3 – fixed income portfolio by rating type;
4. Table 4 – fixed income portfolio by industry sector; and
5. Table 5 – fixed income portfolio by geography and credit rating.

Table 1: Fixed income portfolio overview

31 December 2018		\$m	% portfolio	
Liquids		1,518	13%	Includes cash and equivalents and Government Bonds (net of repurchase agreements).
	Residential Mortgage-Backed Securities (RMBS)	2,565	21%	Residential mortgage-backed securities (RMBS). RMBS expertise developed when Challenger was Australia's largest non-bank securitiser of RMBS (via Mortgage Management business sold in 2009). Also includes NIM notes.
Asset Backed Securities (ABS)	Consumer Finance	1,404	12%	Financing secured against underlying assets. Asset security includes motor vehicle, equipment and consumer finance.
	Senior Secured Bank Loans	502	4%	Senior debt secured by collateral and typically originated by Challenger.
	Aviation Finance	212	2%	Secured commercial aircraft financing.
	CMBS	379	3%	Commercial Mortgage-Backed Securities (CMBS).
	Banks and Financials	955	8%	Corporate loans to banks, insurance companies and fund managers.
	Infrastructure	1,458	12%	Long-dated inflation-linked bonds issued by Public Private Partnership projects and loans to infrastructure companies.
Corporate Credit	Non-Financial Corporates	1,868	16%	Traded commercial loans to non-financial corporates (includes exposures to retail, construction, hotels, media, mining and health care).
	Commercial Real Estate	1,154	9%	Loans secured against commercial real estate assets and typically originated by Challenger.
Total		12,015	100%	

Table 2: Fixed income portfolio by credit rating

31 December 2018 (\$m)	Investment grade						Non-investment grade			Total
	Liquids	AAA	AA	A	BBB	Total	BB	B or lower	Total	\$m
Liquids										
Government Bonds ¹	1,046	-	-	-	-	1,046	-	-	-	1,046
Covered bonds	151	-	-	-	-	151	-	-	-	151
Cash and equivalents	321	-	-	-	-	321	-	-	-	321
Asset-Backed Securities										
RMBS	-	965	532	557	298	2,352	109	104	213	2,565
Consumer finance	-	290	159	119	171	739	468	197	665	1,404
Senior Secured Loans	-	145	34	28	196	403	94	5	99	502
Aviation Finance	-	-	-	128	59	187	25	-	25	212
CMBS	-	77	50	88	71	286	87	6	93	379
Corporate Credit										
Banks and Financials	-	-	124	248	455	827	104	24	128	955
Infrastructure	-	3	118	457	670	1,248	109	101	210	1,458
Non-Financial Corporates	-	-	15	207	597	819	659	390	1,049	1,868
Commercial Real Estate	-	31	10	366	449	856	188	110	298	1,154
Total	1,518	1,511	1,042	2,198	2,966	9,235	1,843	937	2,780	12,015
Fixed income portfolio (%)	13%	13%	9%	18%	24%	77%	15%	8%	23%	100%
Average duration (years)	0.0	2.0	2.7	3.7	3.1	3.0	2.5	4.8	3.3	3.1

31 December 2018 (%)	Investment grade						Non-investment grade			Total
	Liquids	AAA	AA	A	BBB	Total	BB	B or lower	Total	%
Liquids										
Government Bonds ¹	100%	-	-	-	-	100%	-	-	-	100%
Covered bonds	100%	-	-	-	-	100%	-	-	-	100%
Cash and equivalents	100%	-	-	-	-	100%	-	-	-	100%
Asset-Backed Securities										
RMBS	-	38%	21%	22%	11%	92%	4%	4%	8%	100%
Consumer finance	-	21%	11%	8%	13%	53%	33%	14%	47%	100%
Senior Secured Loans	-	29%	7%	6%	38%	80%	19%	1%	20%	100%
Aviation Finance	-	-	-	60%	28%	88%	12%	-	12%	100%
CMBS	-	20%	13%	23%	19%	75%	23%	2%	25%	100%
Corporate credit										
Banks and Financials	-	-	13%	26%	48%	87%	11%	2%	13%	100%
Infrastructure	-	-	8%	31%	47%	86%	7%	7%	14%	100%
Non-Financial Corporates	-	-	1%	11%	32%	44%	35%	21%	56%	100%
Commercial Real Estate	-	3%	1%	32%	38%	74%	16%	10%	26%	100%
Total	13%	13%	9%	18%	24%	77%	15%	8%	23%	100%

¹ Gross Government Bonds are shown net of \$1,552m of Australian Government Bonds and \$2,845m of Australian Semi-Government Bonds, that are held via repurchase agreements. Repurchase agreements are used to hedge movements in interest rates. Refer to page 38 for more detail.

Table 3: Fixed income portfolio by rating type

31 December 2018 (\$m)	Investment grade						Non-investment grade			Total
	Liquids	AAA	AA	A	BBB	Total	BB	B or lower	Total	\$m
Liquids										
Externally rated	1,518	-	-	-	-	1,518	-	-	-	1,518
Internally rated	-	-	-	-	-	-	-	-	-	-
Asset-Backed Securities										
Externally rated	-	1,345	753	795	500	3,393	247	90	337	3,730
Internally rated	-	133	22	125	294	574	536	222	758	1,332
Corporate credit										
Externally rated	-	33	261	1,257	1,804	3,355	519	378	897	4,252
Internally rated	-	-	6	21	368	395	541	247	788	1,183
Total	1,518	1,511	1,042	2,198	2,966	9,235	1,843	937	2,780	12,015
Externally rated	100%	91%	97%	93%	78%	90%	42%	50%	44%	79%
Internally rated	-	9%	3%	7%	22%	10%	58%	50%	56%	21%

31 December 2018 (%)	Investment grade						Non-investment grade			Total
	Liquids	AAA	AA	A	BBB	Total	BB	B or lower	Total	%
Liquids										
Externally rated	100%	-	-	-	-	100%	-	-	-	100%
Internally rated	-	-	-	-	-	-	-	-	-	-
Asset Backed Securities										
Externally rated	-	36%	20%	21%	14%	91%	7%	2%	9%	100%
Internally rated	-	10%	2%	9%	22%	43%	40%	17%	57%	100%
Corporate credit										
Externally rated	-	1%	6%	30%	42%	79%	12%	9%	21%	100%
Internally rated	-	-	1%	2%	30%	33%	46%	21%	67%	100%
Total	13%	13%	9%	18%	24%	77%	15%	8%	23%	100%

Table 4: Fixed income portfolio by industry sector

31 December 2018 (\$m)	Investment grade						Non-investment grade			Total
	Liquids	AAA	AA	A	BBB	Total	BB	B or lower	Total	\$m
Industrials and consumers	-	407	266	496	1,010	2,179	1,144	565	1,709	3,888
Residential property	-	964	474	582	268	2,288	109	143	252	2,540
Banks, financials & insurance	472	3	140	269	462	1,346	158	25	183	1,529
Government	1,046	-	-	-	-	1,046	-	-	-	1,046
Commercial property	-	82	44	390	522	1,038	275	78	353	1,391
Infrastructure and utilities	-	3	118	457	670	1,248	110	100	210	1,458
Other	-	52	-	4	34	90	47	26	73	163
Total	1,518	1,511	1,042	2,198	2,966	9,235	1,843	937	2,780	12,015

31 December 2018 (%)	Investment grade						Non-investment grade			Total
	Liquids	AAA	AA	A	BBB	Total	BB	B or lower	Total	\$m
Industrials and consumers	-	10%	7%	13%	26%	56%	29%	15%	44%	100%
Residential property	-	38%	19%	23%	10%	90%	4%	6%	10%	100%
Banks, financials & insurance	31%	-	9%	18%	30%	88%	10%	2%	12%	100%
Government	100%	-	-	-	-	100%	-	-	-	100%
Commercial property	-	6%	3%	28%	38%	75%	20%	5%	25%	100%
Infrastructure and utilities	-	-	8%	31%	47%	86%	8%	6%	14%	100%
Other	-	32%	-	2%	21%	55%	29%	16%	45%	100%
Total	13%	13%	9%	18%	24%	77%	15%	8%	23%	100%

Table 5: Fixed income portfolio by geography and credit rating

31 December 2018 (\$m)	Investment grade						Non-investment grade			Total
	Liquids	AAA	AA	A	BBB	Total	BB	B or lower	Total	\$m
Australia	1,346	1,236	749	1,383	1,939	6,653	1,189	573	1,762	8,415
United States	90	-	21	296	339	746	436	282	718	1,464
United Kingdom	33	4	47	222	315	621	9	40	49	670
Europe	32	54	82	100	225	493	67	4	71	564
Rest of World	14	99	84	103	91	391	62	2	64	455
New Zealand	3	118	59	94	57	331	80	36	116	447
Total	1,518	1,511	1,042	2,198	2,966	9,235	1,843	937	2,780	12,015

31 December 2018 (%)	Investment grade						Non-investment grade			Total
	Liquids	AAA	AA	A	BBB	Total	BB	B or lower	Total	\$m
Australia	16%	15%	9%	16%	23%	79%	14%	7%	21%	100%
United States	6%	-	1%	20%	24%	51%	30%	19%	49%	100%
United Kingdom	5%	1%	7%	33%	47%	93%	1%	6%	7%	100%
Europe	6%	10%	15%	18%	38%	87%	12%	1%	13%	100%
Rest of the World	3%	22%	18%	23%	20%	86%	14%	-	14%	100%
New Zealand	1%	26%	13%	21%	13%	74%	18%	8%	26%	100%
Total	13%	13%	9%	18%	24%	77%	15%	8%	23%	100%

Property portfolio overview

Life's property portfolio principally comprises directly held properties and is diversified across office, retail and industrial properties.

Life's property portfolio was \$3.7bn (net of debt) at 31 December 2018 and decreased by \$0.1bn (net of debt) in 1H19.

With strong demand from offshore capital compressing property cap rates in certain sectors, the relative attractiveness of holding property over fixed income has recently reduced.

Challenger is in the process of disposing of a number of properties, with the proceeds released to be reinvested in fixed income investments.

Challenger expects the allocation to property to reduce from 21% at 30 June 2018 to mid-teens percentage by the end of FY19.

During 1H19, five direct properties were sold for \$0.4bn, with four due to settle in early 2019. In addition, Life also disposed of its Real Estate Investment Trust (REIT) holdings in August 2018. Following settlement of the four properties in January 2019, Life's property allocation reduced to 19%.

The property allocation at 31 December 2018 is expected to reduce further through additional property disposals in 2H19.

Challenger Life has a policy that all properties are independently valued each year with approximately 50% valued in June and 50% valued in December. Internal valuations are also undertaken for properties not independently valued each June and December. An independent valuation is subsequently undertaken if the internal valuation shows a significant variance to the most recent independent valuation. In 1H19, independent valuations were obtained for 62% of the direct property portfolio.

Life's direct property valuations increased by approximately 1% in 1H19, consistent with Life's 2% per annum normalised capital growth assumption.

Property acquisitions incur stamp duty and acquisition costs. Under Australian Accounting Standards, property acquisition and transaction costs (including stamp duty) are required to be capitalised initially. When the property is subsequently revalued, there is generally no value ascribed to the acquisition costs which may result in a reduction in the property valuation and corresponding negative investment experience.

Property includes a net \$315m exposure to Japanese property (8% of the property portfolio), consisting of suburban shopping centres that are focused on non-discretionary retailing.

Rental income is diversified across sectors and tenants, with ~50% (by 1H19 gross rental income) of tenants classified investment grade (i.e. rated BBB or higher).

The Australian Government is a major tenant, leasing a range of commercial office buildings, and accounted for approximately 30% of 1H19 gross rental income¹.

Approximately 58% of contracted leases have either annual fixed increases or inbuilt increases based on inflation outcomes (e.g. CPI).

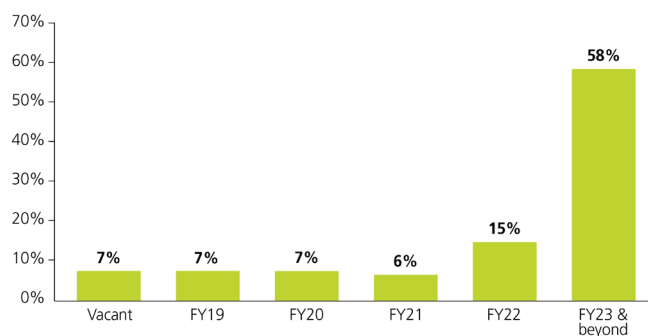
Full details of Life's property portfolio are listed on pages 34 to 36.

Property portfolio summary

% of total portfolio	1H19	1H18
Australian office	56%	51%
Australian retail	26%	26%
Australian industrial	5%	4%
Other	4%	10%
Australian total	91%	91%
Japanese retail	8%	6%
Other (including offshore)	1%	3%
Total	100%	100%

Portfolio lease expiry overview²

The property portfolio generates long-term cash flows in order to match long-term liabilities, with 58% of contracted leases expiring in FY23 and beyond.



¹ Represents total gross passing income attributable to the direct property portfolio.

² Direct property portfolio and jointly held assets only, and excludes Australian REITs and development assets.

Direct property portfolio overview¹

31 December 2018	Office	Retail	Industrial	Total
Total rent (%) ²	50%	43%	7%	100%
WALE ³ (years)	6.2	6.5	4.0	6.2
Tenant credit ratings				
AAA	25%	0%	0%	25%
AA	4%	1%	0%	5%
A	0%	1%	1%	2%
BBB	4%	10%	3%	17%
BB	9%	15%	2%	26%
B or below	1%	2%	1%	4%
Not rated	3%	11%	0%	14%
Vacant	4%	3%	0%	7%
Total	50%	43%	7%	100%
% of total gross net				
Investment grade	33%	12%	4%	49%
Non-investment grade	13%	28%	3%	44%
Vacant	4%	3%	0%	7%

¹ Direct property portfolio and jointly held assets only, and excludes Australian REITs and development assets.

² Includes vacant floors/suites available for lease.

³ Weighted Average Lease Expiry (WALE) assumes tenants do not terminate leases prior to expiry of specified lease term.

Direct property investments

31 December 2018	Acquisition date ¹	Total cost (\$m) ²	Carrying value (\$m)	Cap rate FY18 (%) ³	Last external valuation date
Australia					
Office					
14 Childers Street, ACT	01 Dec 17	97.1	92.6	6.75	30 Jun 18
31 Queen Street, VIC	31 Mar 11	98.6	165.0	5.25	31 Dec 18
35 Clarence Street, NSW	15 Jan 15	145.5	216.0	5.13	30 Jun 18
215 Adelaide Street, QLD	31 Jul 15	248.0	236.6	6.25	30 Jun 18
565 Bourke Street, VIC	28 Jan 15	97.3	131.5	5.13	31 Dec 18
82 Northbourne Avenue, ACT	01 Jun 17	60.9	57.0	6.00	31 Dec 18
ABS Building, ACT	01 Jan 00	161.6	210.5	5.75	31 Dec 18
County Court, VIC	30 Jun 00	217.2	323.7	5.16	31 Dec 18
DIBP (formerly DIAC) Building, ACT	01 Dec 01	104.8	151.0	5.50	31 Dec 18
Discovery House, ACT	28 Apr 98	92.9	142.6	5.50	30 Jun 18
Executive Building, TAS	30 Mar 01	34.2	45.0	7.25	31 Dec 18
Makerston House, QLD	14 Dec 00	68.5	85.0	7.00	31 Dec 18
Retail					
Bunbury Forum, WA	03 Oct 13	154.8	104.0	6.50	31 Dec 18
Channel Court, TAS	21 Aug 15	82.3	81.7	7.00	30 Jun 18
Gateway, NT	01 Jul 15	120.5	123.8	5.85	31 Dec 18
Golden Grove, SA	31 Jul 14	154.1	168.8	5.75	31 Dec 18
Karratha, WA	28 Jun 13	54.8	51.2	7.00	30 Jun 18
Kings Langley, NSW	29 Jul 01	16.1	23.7	6.25	30 Jun 18
Lennox, NSW	27 Jul 13	28.6	35.4	6.25	30 Jun 18
Next Hotel, QLD	25 Mar 15	143.2	131.2	6.11	30 Jun 18
Industrial					
21 O'Sullivan Circuit, NT	27 Jan 16	47.6	37.6	8.00	31 Dec 18
31 O'Sullivan Circuit, NT	27 Jan 16	28.8	26.1	8.25	31 Dec 18
Cosgrave Industrial Park, Enfield, NSW	31 Dec 08	92.3	116.8	5.75	31 Dec 18
Mixed use					
The Barracks, QLD ⁴	31 Oct 14	155.2	150.1	6.25	31 Dec 18
Total Australia		2,504.9	2,906.9		

¹ Acquisition date represents the date of Challenger Life Company Limited (CLC's) initial acquisition or consolidation of the investment vehicle holding the asset.

² Total cost represents the original acquisition cost plus additions less full and partial disposals since acquisition date.

³ The capitalisation rate is the rate at which net market income is capitalised to determine the value of the property. The rate is determined with regard to market evidence.

⁴ Property has been sold and expected to settle in early 2H19.

Direct property investments

31 December 2018		Acquisition date ¹	Total cost (\$m) ²	Carrying value (\$m)	Cap rate FY18 (%) ³	Last external valuation date
Japan						
Retail						
	Aeon Kushiro	31 Jan 10	30.5	36.9	5.40	30 Jun 18
	Carino Chitosedai	31 Jan 10	118.4	139.8	4.50	31 Dec 18
	Carino Tokiwadai	31 Jan 10	77.0	85.8	4.60	30 Jun 18
	DeoDeo Kure	31 Jan 10	32.2	32.5	5.50	30 Jun 18
	Fitta Natalie Hatsukaichi	28 Aug 15	11.4	14.9	5.90	31 Dec 18
	Izumiya Hakubaicho	31 Jan 10	68.8	78.1	4.80	31 Dec 18
	Kansai Super Siago	31 Jan 10	13.1	14.1	5.50	31 Dec 18
	Kojima Nishiarai	31 Jan 10	12.2	15.8	4.30	30 Jun 18
	Life Asakusa	31 Jan 10	27.8	36.7	4.40	30 Jun 18
	Life Higashi Nakano	31 Jan 10	32.9	40.0	4.40	31 Dec 18
	Life Nagata	31 Jan 10	25.2	29.9	4.90	30 Jun 18
	MaxValu Tarumi	28 Aug 15	16.9	20.2	5.70	31 Dec 18
	Seiyu Miyagino	31 Jan 10	9.7	11.4	5.30	30 Jun 18
	TR Mall Ryugasaki	30 Mar 18	86.7	95.9	5.70	31 Dec 18
	Valor Takinomizu	31 Jan 10	26.9	26.2	5.80	31 Dec 18
	Valor Toda	31 Jan 10	42.5	47.3	5.40	31 Dec 18
	Yaoko Sakato Chiyoda	31 Jan 10	19.6	19.9	4.80	31 Dec 18
Total Japan			651.8	745.4		
Europe						
Industrial						
	105 Route d'Orleans, Sully sur Loire ⁴	31 Dec 08	27.1	8.5	8.00	31 Dec 18
	140 Rue Marcel Paul, Gennevilliers	31 Dec 08	14.1	11.1	7.25	31 Dec 18
	ZAC Papillon, Parcay-Meslay ⁴	31 Dec 08	10.1	8.6	7.00	31 Dec 18
	Rue Charles Nicolle, Villeneuve les Beziers ⁴	31 Dec 08	18.5	16.4	7.25	31 Dec 18
Retail						
	Avenue de Savigny, Aulnay sous Bois	31 Dec 08	20.3	9.9	6.50	31 Dec 18
Total Europe			90.1	54.4		
Total overseas			741.9	799.9		
Development						
	839 Collins Street, VIC	22 Dec 16	189.5	206.5	-	-
	Waterford County	06 Dec 06	5.3	5.2	-	-
	Maitland, NSW	06 Dec 06	0.7	0.7	-	-
	North Rocks, NSW	18 Sep 15	167.0	159.3	-	-
	TRE Data Centre, ACT	14 Apr 10	13.7	13.5	-	-
Total development			376.2	385.2		
Total direct portfolio investments			3,623.0	4,092.0		

¹ Acquisition date represents the date of Challenger Life Company Limited (CLC's) initial acquisition or consolidation of the investment vehicle holding the asset.

² Total cost represents the original acquisition cost plus additions less full and partial disposals since acquisition date.

³ The capitalisation rate is the rate at which net market income is capitalised to determine the value of the property. The rate is determined with regard to market evidence.

⁴ Property has been sold and expected to settle in early 2H19.

Equity and other portfolio overview

Life's equity and other portfolio of \$2.1bn increased by \$0.3bn (17%) during 1H19. Equity and other investments represented 11% of Life's total investment assets at 31 December 2018, up from 10% at 30 June 2018.

Life's equity beta portfolio (\$0.1bn) represents private equity investments and long only listed equities. Investment returns for both private equity and listed equities are expected to be broadly in line with listed equity market indices over the long term, however private equity investment returns tend to lag listed investment market returns.

Life's low beta portfolio (\$0.9bn) includes an equity collar strategy (\$0.5bn), equity option strategies, and a range of credit linked investments. Investment returns are expected to be less correlated to listed equity markets than equity beta investments and have lower volatility. The various strategies within the low beta portfolio will have different betas and correlations and will perform differently to each other.

Life's absolute return portfolio (\$0.8bn) includes systematic global macro funds and market neutral long short equity funds. Investment returns are expected to have a lower correlation to listed equity markets.

Life's alternatives portfolio (\$0.3bn) includes insurance related and other investments. These investments are expected to have a low correlation to listed equity markets.

Equity and other portfolio

31 December 2018 (\$m)	Domestic	Offshore	Total
Equity beta	56	87	143
Low beta	98	780	878
Absolute return funds	217	601	818
Alternatives	-	274	274
Total	371	1,742	2,113

Infrastructure portfolio overview

Life's infrastructure portfolio of \$0.8bn (net of debt) increased by \$39m (5%) in 1H19 and represented 4% of Life's total investment assets at 31 December 2018.

Challenger Life seeks infrastructure assets that generate reliable and consistent cash flows, which are preferably inflation linked, giving rise to sustainable income growth over time. Infrastructure investments comprise directly held infrastructure assets and indirectly held listed and unlisted investments.

Approximately 50% of the infrastructure portfolio is unlisted.

The infrastructure portfolio is diversified across a number of geographic regions and sectors.

Infrastructure portfolio by sector

31 December 2018	\$m	%
Logistics	191	25
Utilities	66	9
Patronage	17	2
Airport	46	6
Power generation	16	2
Renewable	112	15
Core infrastructure	309	41
Total	757	100

Infrastructure portfolio by geography

31 December 2018	\$m	%
North America	195	26
Australia	183	24
United Kingdom	204	27
Asia	63	8
Europe	97	13
South America	15	2
Total	757	100

Challenger Life Company (CLC) Life debt facilities

\$m	1H19	FY18	1H18	FY17	1H17	FY16	1H16
Repurchase agreements	4,397.4	3,816.0	3,387.9	3,287.5	3,482.9	2,454.2	1,875.1
Controlled property debt	476.9	560.5	491.9	534.5	535.8	572.9	652.9
Subordinated debt	400.6	403.7	405.3	393.6	384.8	576.7	576.5
Challenger Capital Notes	805.0	805.0	805.0	805.0	345.0	345.0	345.0
Infrastructure debt	194.7	197.2	199.2	201.1	202.9	204.3	206.0
Other finance	13.9	15.0	16.0	17.0	17.8	18.8	19.5
Total CLC debt facilities	6,288.5	5,797.4	5,305.3	5,238.7	4,969.2	4,171.9	3,675.0

Life debt facilities

Life debt facilities include debt which is non-recourse to the broader Challenger Group and secured against assets held in CLC investment vehicles, including direct properties and infrastructure investments.

Life debt facilities increased by \$491m during 1H19, due to an increase in repurchase agreements used to hedge interest rate movements (up \$581m), partially offset by a decrease in controlled property debt (down \$84m).

Repurchase agreements

Life enters into repurchase agreements whereby fixed income securities are sold for cash while simultaneously agreeing to repurchase the fixed income security at a fixed price and fixed date in the future. The use of repurchase agreements is part of Challenger's strategy to hedge interest rate movements.

Life uses Australian Government and Semi-Government Bonds with repurchase agreements, interest rate swaps and bond futures to hedge movements in interest rates on its asset portfolio, annuity policy liabilities, Guaranteed Index Return mandates, and the Challenger Index Plus Fund.

The Commonwealth and state Governments continued to increase supply and extend the duration of their bond curves during the period. As a result, bonds provided a better relative value hedge than swaps, particularly for longer dated liabilities.

Derivates such as interest rate swaps and bond futures are self-financing, whereas the use of bonds requires repurchase agreement financing.

Capital Notes

Over the past four years, Challenger Limited has issued two separate subordinated, unsecured convertible notes (Challenger Capital Notes and Challenger Capital Notes 2), with proceeds used to fund Challenger Life Company Limited (CLC) qualifying Additional Tier 1 regulatory capital.

Challenger Capital Notes (ASX code 'CGFPA')

In October 2014, Challenger issued Challenger Capital Notes to the value of \$345m, which are subordinated, unsecured convertible notes issued by Challenger Limited. Challenger Capital Notes pay a margin of 3.40% above the 90 day Bank Bill rate, with the total distribution reduced by available franking credits.

Challenger Capital Notes are convertible to ordinary shares at any time before May 2022 on the occurrence of certain events, and mandatorily convertible to ordinary shares thereafter, in both cases subject to meeting certain conditions.

However, Challenger retains the option to redeem or resell Challenger Capital Notes, and has an outright option to redeem or resell on 25 May 2020 (both subject to certain conditions being met). If Challenger exercises its option to redeem or resell, there will be no conversion of Challenger Capital Notes to Challenger ordinary shares and no subsequent shareholder dilution.

Challenger Capital Notes 2 (ASX code 'CGFPB')

In April 2017, Challenger issued Challenger Capital Notes 2, to the value of \$460m, which are subordinated, unsecured convertible notes issued by Challenger Limited. Challenger Capital Notes 2 pay a margin of 4.40% above the 90 day Bank Bill rate, with the total distribution reduced by available franking credits.

Challenger Capital Notes 2 are convertible to ordinary shares at any time before May 2025 on the occurrence of certain events, and mandatorily convertible to ordinary shares thereafter, in both cases subject to meeting certain conditions.

However, Challenger retains the option to redeem or resell Challenger Capital Notes 2 on 22 May 2023 (both subject to certain conditions being met). If Challenger exercises its option to redeem or resell, there will be no conversion of Challenger Capital Notes 2 to Challenger ordinary shares and no subsequent shareholder dilution.

Subordinated debt

In November 2017, CLC issued \$400m of Tier 2 subordinated notes. The subordinated notes fully qualify as Tier 2 regulatory capital under APRA's prudential standards and are floating rate notes, paying interest at a margin of 2.10% above the 90 day Bank Bill rate.

The subordinated notes mature in November 2042, with CLC having the option to redeem the notes in November 2022, subject to APRA approval.

The subordinated notes qualify 100% as Tier 2 regulatory capital until November 2038.

Proceeds from the subordinated notes were used to repay CLC's existing Tier 2 subordinated debt instrument that had a call date in November 2017.

The subordinated notes include a holder conversion option, allowing the note holder to convert the notes into Challenger ordinary shares in November 2024 if CLC has not already called the subordinated notes in November 2022.

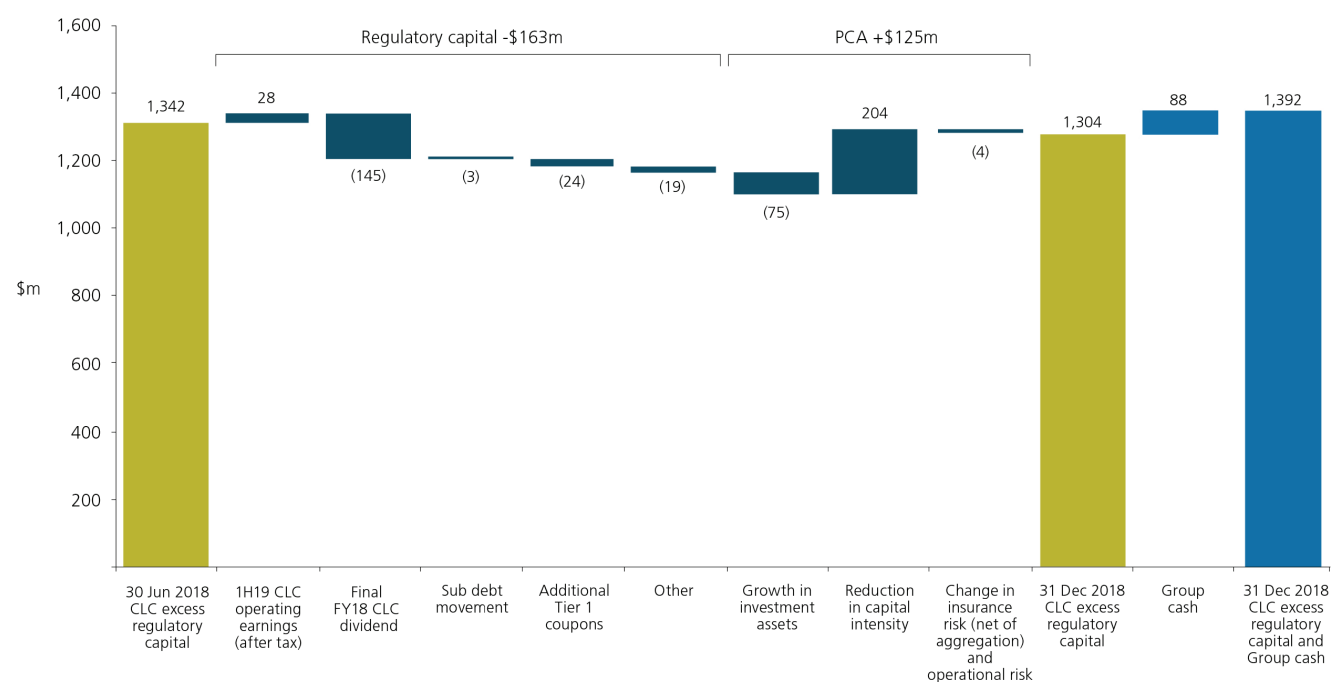
If CLC exercises its option to redeem, there will be no conversion of subordinated debt to Challenger ordinary shares and no subsequent shareholder dilution.

Challenger Life Company Limited (CLC) regulatory capital

\$m	1H19	FY18	1H18	FY17	1H17	FY16	1H16
CLC regulatory capital							
Common Equity Tier 1 (CET1) regulatory capital	2,517.6	2,677.8	2,638.4	2,169.0	2,046.0	2,003.6	1,951.8
Additional Tier 1	805.0	805.0	805.0	805.0	345.0	345.0	345.0
Tier 2 regulatory capital – subordinated debt ¹	402.2	405.4	406.8	395.4	386.7	445.5	477.5
CLC total regulatory capital base	3,724.8	3,888.2	3,850.2	3,369.4	2,777.7	2,794.1	2,774.3
CLC Prescribed Capital Amount (PCA)							
Asset risk charge	2,355.2	2,484.7	2,502.4	2,067.1	1,933.3	1,712.0	1,731.3
Insurance risk charge	83.3	70.0	164.9	157.5	152.7	168.3	132.7
Operational risk charge	47.5	46.4	42.8	38.7	34.9	28.7	22.7
Aggregation benefit	(64.8)	(54.8)	(125.7)	(119.2)	(115.5)	(125.3)	(100.4)
CLC PCA – excluding transition relief	2,421.2	2,546.3	2,584.4	2,144.1	2,005.4	1,783.7	1,786.3
Transition relief	-	-	-	-	-	-	(107.6)
CLC PCA	2,421.2	2,546.3	2,584.4	2,144.1	2,005.4	1,783.7	1,678.7
CLC excess over PCA	1,303.6	1,341.9	1,265.8	1,225.3	772.3	1,010.4	1,095.6
PCA ratio (times)	1.54	1.53	1.49	1.57	1.39	1.57	1.65
Tier 1 ratio (times)	1.37	1.37	1.33	1.39	1.19	1.32	1.37
CET1 ratio (times)	1.04	1.05	1.02	1.01	1.02	1.12	1.16
Capital intensity ratio (%) ¹	13.0%	14.1%	15.2%	13.7%	13.7%	12.6%	13.6%

¹ Capital intensity ratio is calculated as CLC PCA divided by Life closing investment assets.

Movement in CLC excess regulatory capital and Group cash (\$m)



Challenger Life Company Limited (CLC) regulatory capital

Capital management

Challenger Life Company Limited (CLC) holds capital in order to ensure that under a range of adverse scenarios it can continue to meet its regulatory requirements and contractual obligations to customers.

CLC is regulated by APRA and is required to hold a minimum level of regulatory capital.

CLC's regulatory capital base and prescribed capital amounts have been calculated based on APRA prudential capital standards.

CLC's excess regulatory capital

CLC's excess capital above APRA's Prescribed Capital Amount (PCA) at 31 December 2018 (1H19) was \$1.3bn.

CLC's regulatory capital base at 31 December 2018 was \$3.7bn and decreased by \$0.2bn in 1H19. The regulatory capital base decreased as a result of the change in retained earnings, including the dividend paid from CLC (\$0.1bn) to Challenger Group and payment of coupons in respect of CLC's Additional Tier 1 regulatory capital.

CLC's regulatory capital base was impacted in 1H19 by lower CLC operating earnings as a result of investment experience (-\$194m after tax - refer to page 22 for more detail).

CLC's PCA at 31 December was \$2.4bn and decreased by \$0.1bn during 1H19 despite Life's investment assets increasing by \$0.5bn.

CLC's 31 December 2018 PCA benefited from a reduction in capital intensity due to changes to Life's investment portfolio, including increasing the fixed income credit quality, reducing the property allocation and implementing an equities collar strategy. As a result, CLC's capital intensity, as measured by the PCA to investment assets, decreased from 14.1% at 30 June 2018 to 13.0% at 31 December 2018. CLC's capital intensity is expected to fall further as Life further reduces its property allocation (refer to page 33 for more detail).

CLC's capital ratios at 31 December 2018 were as follows:

- PCA ratio 1.54 times – up 0.01 times from 30 June 2018;
- Total Tier 1 ratio 1.37 – unchanged from 30 June 2018; and
- Common Equity Tier 1 (CET1) ratio 1.04 times – down 0.01 times from 30 June 2018.

APRA's prudential standards require Total Tier 1 capital to be at least 80% of the PCA and CET1 capital to be at least 60% of the PCA. Both Challenger's Total Tier 1 capital ratio (1.37 times) and CET1 capital ratio (1.04 times) are well in excess of APRA's minimum requirements.

CLC maintains a target level of capital representing APRA's Prescribed Capital Amount plus a target surplus. The target surplus is a level of excess capital CLC seeks to carry over and above APRA's minimum requirement to ensure it provides a buffer for adverse market or insurance risk experience.

CLC uses internal capital models to determine its target surplus, which are risk based and responsive to changes in CLC's asset allocation and market conditions.

CLC does not target a fixed PCA ratio. CLC's internal capital models generate a PCA ratio range based on asset

allocation, business mix and economic circumstances. Based on this, CLC's target PCA range is currently 1.3 times to 1.6 times. This range may change over time.

Additional Tier 1 regulatory capital and subordinated debt

Challenger Limited has issued two separate subordinated, unsecured convertible notes (Challenger Capital Notes and Challenger Capital Notes 2), with proceeds used to fund qualifying Additional Tier 1 regulatory capital for CLC.

In November 2017, CLC replaced its existing \$400m Tier 2 subordinated debt instrument with new Tier 2 subordinated notes (\$400m). The new subordinated notes fully qualify as Tier 2 regulatory capital under APRA's prudential standards.

Further details on Challenger's convertible debt instruments is included on page 38.

Group cash

In addition to CLC's excess regulatory capital, Challenger maintains cash at a Group level, which can be utilised to meet regulatory requirements. Group cash at 31 December 2018 was \$88m and increased by \$3m during 1H19.

Challenger also maintains a \$400m Group banking facility in order to provide additional financial flexibility. The banking facility was undrawn throughout the half year.

APRA's Level 3 (conglomerate) capital proposals

In March 2010, APRA released a discussion paper proposing to extend its prudential supervision framework to conglomerate groups containing one or more APRA-regulated entities, with such supervision being termed 'Level 3' supervision. In the discussion paper, APRA proposed to apply Level 3 supervision to conglomerate groups containing:

- two or more material APRA-regulated entities operating in different industries, or
- at least one APRA-regulated entity and at least one material unregulated entity.

Under the proposed framework, the Challenger Group would be a Level 3 group, containing its APRA regulated life company, CLC, together with its non-APRA regulated Funds Management business.

APRA's proposed Level 3 supervision framework contained capital components in addition to risk management components relating to the measurement, monitoring and reporting of aggregate risk exposures and intra-group transactions.

After a series of consultations, in March 2016 APRA announced that it would implement the proposed prudential standards relating to risk management, but would defer the implementation of the proposed capital components until a number of other domestic and international policy initiatives were further progressed.

Profit and equity sensitivities

\$m	Change in variable	Profit/(loss) after tax 1H19	Change in equity 1H19	Profit/(loss) after tax FY18	Change in equity FY18
Credit risk					
Fixed income assets (change in credit spreads)	+50 bps	(110.8)	(110.8)	(113.8)	(113.8)
	-50 bps	110.8	110.8	113.8	113.8
Policy liabilities (illiquidity premium change in credit spreads)	+50 bps	56.1	56.1	52.2	52.2
	-50 bps	(56.1)	(56.1)	(52.2)	(52.2)
Total	+50 bps	(54.7)	(54.7)	(61.6)	(61.6)
	-50 bps	54.7	54.7	61.6	61.6
Property risk					
Direct property	+1%	25.9	25.9	26.5	26.5
	-1%	(25.9)	(25.9)	(26.5)	(26.5)
Australian listed property securities	+10%	-	-	15.6	15.6
	-10%	-	-	(15.6)	(15.6)
Other property securities	+10%	9.3	9.3	9.9	9.9
	-10%	(9.3)	(9.3)	(9.9)	(9.9)
Total		35.2	35.2	52.0	52.0
		(35.2)	(35.2)	(52.0)	(52.0)
Infrastructure and equity risk					
Infrastructure investments	+10%	53.0	53.0	50.2	50.2
	-10%	(53.0)	(53.0)	(50.2)	(50.2)
Equity investments	+10%	147.9	147.9	125.9	125.9
	-10%	(147.9)	(147.9)	(125.9)	(125.9)
Total	+10%	200.9	200.9	176.1	176.1
	-10%	(200.9)	(200.9)	(176.1)	(176.1)
Life Insurance risk					
Mortality, morbidity and longevity¹					
Life insurance contract liabilities	+50%	(14.5)	(14.5)	(11.8)	(11.8)
	-50%	14.5	14.5	11.8	11.8
Interest rate risk					
Change in interest rates	+100 bps	(8.8)	(8.8)	2.0	2.0
	-100 bps	8.8	8.8	(2.0)	(2.0)
Foreign exchange risk					
British pound	+10%	1.5	1.5	(0.4)	(0.4)
	-10%	(1.5)	(1.5)	0.4	0.4
US dollar	+10%	(0.5)	(0.5)	0.7	0.7
	-10%	0.5	0.5	(0.7)	(0.7)
Euro	+10%	-	-	(0.1)	(0.1)
	-10%	-	-	0.1	0.1
Japanese yen	+10%	0.2	-	0.2	0.8
	-10%	(0.2)	-	(0.2)	(0.8)
Other	+10%	0.1	0.1	0.2	0.2
	-10%	(0.1)	(0.1)	(0.2)	(0.2)

¹ Mortality, morbidity and longevity life insurance contract liabilities sensitivity is net of any reinsurance with third parties.

Profit and equity sensitivities

Profit and equity sensitivities set out the expected impact from changes in a range of economic and investment market variables on Challenger's earnings and balance sheet. These sensitivities represent the after-tax impact on statutory profit, assuming a tax rate of 30%.

The sensitivities are not forward looking and make no allowance for events occurring after 31 December 2018. If using these sensitivities as forward looking, an allowance for changes post-31 December 2018, such as sales, asset growth and changes in asset allocation, should be made.

These sensitivities assess changes in economic, insurance and investment markets on the valuation of assets and liabilities, which in turn impact earnings. The earnings impact is included in investment experience and does not take into consideration the impact of any under or over-performance of normalised growth assumptions for each asset category. Refer to page 50 for normalised growth assumptions.

These sensitivities do not include the indirect impact on fees for the Funds Management business.

Refer to the Risk Management Framework below for additional detail on how to apply the profit and equity sensitivities.

Risk Management Framework

CLC is required under APRA prudential standards to maintain regulatory capital in order to ensure that under a range of adverse scenarios it can continue to meet its regulatory and contractual obligations to customers.

Challenger is exposed to a variety of financial risks, including market risk (credit spread risk, currency risk, interest rate risk, equity risk), credit default risk, life insurance risk, liquidity risk and operational risk.

The management of these risks is fundamental to Challenger's business and building long-term shareholder value.

The Challenger Limited Board is responsible, in conjunction with senior management, for understanding risks associated with the business and implementing structures and policies to adequately monitor and manage these risks.

The Board has established the Group Risk Committee (GRC) and Group Audit Committee (GAC) to assist in discharging certain responsibilities. In particular, these committees assist the Board in setting the risk appetite and ensuring Challenger has an effective Risk Management Framework, incorporating management, operational and financial controls.

The Executive Risk Management Committee (ERMC) is an executive committee, chaired by the Chief Risk Officer (CRO), which assists the GRC, GAC and Board in discharging their risk management obligations by implementing the Board-approved Risk Management Framework.

The Group's Risk Management division has day-to-day responsibility for monitoring the implementation of the framework with oversight, analysis, monitoring and reporting of risks. The CRO provides regular reporting to the GRC and the Board.

Risk appetite

Challenger's risk appetite requires a range of financial risks, including foreign exchange, interest rate and inflation risk, to be minimised. As a result, Challenger takes an active approach to hedging and limiting these financial risks.

Challenger's risk appetite requires running a portfolio of cash flow matched asset and liabilities in order to reduce the risk of a cash flow mismatch.

Challenger's risk appetite statement provides that, subject to acceptable returns, and subject to limits, Challenger can retain exposure to credit risk, property risk, equity and infrastructure risk and life insurance risk

Accept exposure (subject to appropriate returns)	Minimise exposure
✓ Credit risk	✗ Asset and liability mismatch risk
✓ Property risk	✗ Foreign exchange risk
✓ Equity and infrastructure risk	✗ Interest rate risk
✓ Life insurance risk	✗ Inflation risk
	✗ Liquidity risk
	✗ Licence risk
	✗ Operational risk

Asset and liability mismatch risk

Challenger seeks to run a matched portfolio of assets and liabilities and minimise cash flow mismatch. Annuity cash payments are met from contracted investment cash flows together with assets held in Challenger's liquidity pool. As a result, liabilities and asset cash flows are well matched and are continually rebalanced through time.

Credit default risk

Credit default risk is the risk of loss in value of an investment due to a counterparty failing to discharge an obligation.

Challenger's approach to credit management utilises a credit risk framework to ensure that the following principles are adhered to:

- credit risk management team separation from risk originators;
- recognition of the different risks in the various businesses;
- credit exposures being systematically controlled and monitored;
- credit exposures being regularly reviewed in accordance with existing credit procedures; and
- ensuring credit exposures include the impact from derivative transactions.

Challenger makes use of external ratings agencies (Standard & Poor's, Fitch, Moody's) to determine credit ratings.

Where a counterparty or debt obligation is rated by multiple external rating agencies, Challenger will use Standard & Poor's ratings where available.

All credit exposures with an external rating are also reviewed internally and cross-referenced to the external rating, if applicable.

Where external credit ratings are not available, internal credit ratings are assigned by appropriately qualified and experienced credit personnel who operate separately from the asset originators.

Credit spread risk sensitivity

Challenger is exposed to price movements resulting from credit spread fluctuations through its fixed income securities (net of subordinated debt) and the fair value of annuity and other liabilities.

As at 31 December 2018, a 50 bps increase/decrease in credit spreads would have resulted in an unrealised loss/gain of \$111m (after tax) on fixed income investments (net of debt).

In accordance with prudential standards and Australian Accounting Standards, Challenger Life values term annuities at fair value, and lifetime annuities using a risk-free discount rate, both of which are based on the Australian Government bond curve plus an illiquidity premium. Movements in fixed income credit spreads impact the illiquidity premium.

As at 31 December 2018, a 50 bps increase/decrease in credit spreads would have resulted in an unrealised gain/loss of \$56m (after tax) on the fair value of annuity liabilities.

As at 31 December 2018, the net impact after considering both fixed income investments and annuity liabilities for a 50 bps increase/decrease in credit spreads results in an unrealised loss/gain of \$55m (after tax).

Property risk

Property risk is the potential impact of movements in the market value of property investments on Challenger's profit and loss.

Property risk sensitivity

Challenger is exposed to movements in the market value of property investments, both directly held investment properties and property securities.

The property sensitivities included on page 41 show the impact of a change in property valuations at balance date and are based on Life's gross property investments of \$4.2bn (net investments of \$3.7bn plus debt of \$0.5bn). A 1% move in the direct property portfolio and 10% move in the indirect and other property portfolio at 31 December 2018 would result in a \$35m (after tax) movement in property valuations.

Infrastructure risk

Challenger is exposed to movements in the market value of listed and unlisted infrastructure investments. The infrastructure portfolio is diversified across a number of geographic regions and sectors, with approximately 75% of infrastructure investments offshore.

Equity risk

Equity risk is the potential impact of movements in the market value of listed and unlisted equity investments, including movements in the value of absolute return strategies.

Challenger holds equities as part of its investment portfolio to provide diversification across the investment portfolio.

Infrastructure and equity risk sensitivity

Challenger is exposed to movements in the market value of listed and unlisted infrastructure and equity investments. A 10% move in the infrastructure and equity portfolio at 31 December 2018 would have resulted in a \$201m (after tax) movement in the valuation of infrastructure and equity investments.

The equity risk sensitivity on page 41 assumes a 10% market movement impacts the valuation of equity investments by 10%. Life has in place a number of strategies to reduce the impact of investment markets on the valuation of its equity investments, including a collar strategy (refer to page 37 for more detail). As a result, a 10% movement in equity markets is expected to have a smaller impact on the valuation of Life's equity investments.

Liquidity risk

Liquidity risk is the risk Challenger will encounter difficulty in raising funds to meet cash commitments associated with financial instruments and contracted payment obligations to annuitants. This may result from either the inability to sell financial assets at face value, a counterparty failing to repay contractual obligations, or the inability to generate cash inflows as anticipated.

Challenger's Liquidity Management Policy aims to ensure that it has sufficient liquidity to meet its obligations on a short, medium and long-term basis. In setting the level of sufficient liquidity, Challenger considers new business activities in addition to current contracted obligations.

In determining the required levels of liquidity, Challenger considers:

- minimum cash requirements;
- collateral and margin call buffers;
- Australian Financial Services Licence requirements;
- cash flow forecasts;
- associated reporting requirements;
- other liquidity risks; and
- contingency plans.

Required annuity cash outflows are met from contracted investment cash flows together with assets in Challenger's liquidity pool. As a result, cash flows are well matched and continue to be rebalanced through time.

Life insurance risk

Lifetime annuities provide guaranteed payments to customers for life. Through selling lifetime annuities and assuming wholesale reinsurance agreements, CLC is assuming longevity risk, which is the risk annuitants live longer, in aggregate, than expected. This is in contrast to mortality risk, which is the risk that people die earlier than expected. CLC is exposed to mortality and morbidity risks on its wholesale mortality reinsurance business.

CLC is required under APRA prudential standards to maintain regulatory capital in relation to the longevity, mortality and morbidity risks. CLC manages some of its longevity risk exposure by using reinsurance for closed lifetime annuity portfolios. CLC regularly reviews the portfolio for longevity experience to ensure longevity assumptions remain appropriate.

Mortality and morbidity rates are based on industry standards, which are adjusted for CLC's own recent experience and include an allowance for future mortality improvements.

CLC assumes future mortality rates for individual lifetime annuities will improve by between 0% and 2.6% per annum, depending on different age cohorts. This has the impact of increasing the life expectancy of a male aged 65 from 22 years (per the base mortality rates) to 26 years.

Mortality, morbidity and longevity sensitivities

The mortality sensitivities on page 41 set out the expected impact of an improvement in mortality. This is in addition to the mortality improvements Challenger already assumes.

A 50% increase in the annual mortality improvement rates already assumed would increase the life expectancy of a male aged 65 from 26 years to 27 years and increase the policy liability valuations by \$15m (after tax).

Interest rate risk

Interest rate risk is the risk of fluctuations in Challenger's earnings arising from movements in market interest rates, including changes in the absolute level of interest rates, the shape of the yield curve and the margin between different yield curves.

CLC's market risk policy sets out the relevant risk limits for interest rate exposure. It is CLC's policy to minimise the impact of interest rate movements on its projected future cash flows, which are required to meet future annuitant obligations.

CLC does not seek to minimise the impact of fluctuations of interest rates on shareholder capital earnings. As a result, the investment yield on CLC's shareholder capital will be impacted by changes in interest rates.

Interest rate sensitivity

The impact of movements in interest rates on Challenger's profit and loss and balance sheet are set out on page 41.

The sensitivities assume the change in variable occurs on 31 December 2018 and is based on assets and liabilities held at that date.

The impact of movements in interest rates is minimised through the use of interest rate swaps, Australian Government bonds and bond futures. As a result, the interest rate sensitivities on page 41 show Challenger's profit is not materially sensitive to changes in base interest rates.

The sensitivities on page 41 do not include the impact of changes in interest rates on earnings from CLC's shareholder capital as investment earnings are earned over the period, whereas the sensitivities on page 41 assume a change in interest rates occurred on 31 December 2018.

Foreign exchange risk

It is Challenger's policy to seek to hedge the exposure of all balance sheet items for movements in foreign exchange rates.

Currency exposure arises primarily in relation to Life's investments in Europe (including the United Kingdom), Japan and the United States. As a result, currency risk arises primarily from fluctuations in the value of the euro, British pound, Japanese yen and US dollar against the Australian dollar.

In order to minimise foreign currency exchange rate risk, Challenger enters into foreign currency derivatives in order to limit Challenger's exposure to currency movements.

Foreign exchange sensitivity

The impact of movements in foreign currencies on Challenger's profit and loss and balance sheet are set out on page 41. As a result of foreign currency derivatives in place, Challenger's profit and loss is not materially sensitive to movements in foreign currency rates.

Funds Management financial results

\$m	1H19	2H18	1H18	2H17	1H17	2H16	1H16
Fidante Partners							
Fidante Partners income ¹	43.8	37.1	36.5	38.1	39.5	33.8	37.5
Performance fees	2.5	12.9	6.4	1.3	1.1	3.1	3.8
Net income	46.3	50.0	42.9	39.4	40.6	36.9	41.3
Challenger Investment Partners (CIP)							
CIP income ²	28.9	29.2	29.1	29.3	24.7	23.7	25.8
Total net fee income	75.2	79.2	72.0	68.7	65.3	60.6	67.1
Personnel expenses	(31.9)	(32.4)	(29.9)	(30.7)	(31.9)	(31.5)	(30.9)
Other expenses	(17.2)	(16.0)	(15.0)	(13.6)	(12.7)	(13.3)	(14.6)
Total expenses	(49.1)	(48.4)	(44.9)	(44.3)	(44.6)	(44.8)	(45.5)
EBIT	26.1	30.8	27.1	24.4	20.7	15.8	21.6
Performance analysis							
Fidante Partners – income margin (bps) ³	16	18	16	16	18	18	20
CIP – income margin (bps) ³	31	32	34	38	34	36	39
Cost to income ratio	65.3%	61.1%	62.4%	64.5%	68.3%	73.9%	67.8%
Net assets – average ⁴	212.3	201.6	194.9	185.4	176.9	165.9	151.3
ROE (pre-tax)	24.4%	30.8%	27.6%	26.5%	23.2%	19.2%	28.4%
Fidante Partners	56,330	59,630	56,031	50,960	46,958	43,012	41,605
Challenger Investment Partners	18,684	18,354	17,397	15,945	15,155	13,650	13,093
Closing FUM – total	75,014	77,984	73,428	66,905	62,113	56,662	54,698
Fidante Partners	58,621	57,559	54,120	48,791	44,815	41,973	41,710
Challenger Investment Partners	18,747	18,272	16,853	15,725	14,308	13,346	13,128
Average FUM – total⁵	77,368	75,831	70,973	64,516	59,123	55,319	54,838
FUM and net flows analysis							
Fidante Partners ⁶	(1,045.8)	1,375.3	2,497.0	2,384.8	1,741.0	1,332.1	(3,941.8)
Challenger Investment Partners	68.7	(8.4)	1,437.3	618.7	1,476.1	507.1	(414.6)
Net flows	(977.1)	1,366.9	3,934.3	3,003.5	3,217.1	1,839.2	(4,356.4)
Distributions	(441.7)	(318.6)	(339.1)	(248.2)	(256.0)	(203.1)	(338.0)
Market-linked movement	(1,550.7)	3,507.4	2,927.3	2,037.1	2,490.3	327.6	1,490.0
Total FUM movement	(2,969.5)	4,555.7	6,522.5	4,792.4	5,451.4	1,963.7	(3,204.4)

¹ Fidante Partners income includes equity-accounted profits, distribution fees, administration fees, revenue share and Fidante Partners Europe transaction fees.

² CIP income includes asset-based management fees and other income. Other income includes leasing fees, asset acquisition and disposal fees, development and placement fees.

³ Income margin represents net income divided by average FUM.

⁴ Net assets – average calculated on a monthly basis.

⁵ Average FUM calculated on a monthly basis.

⁶ Funds Management 1H16 net flows include \$5.4bn derecognition of Kapstream following the sale in July 2015.

Funds Management financial results

Funds Under Management and net flows

\$m	Q2 19	Q1 19	Q4 18	Q3 18	Q2 18
Funds Under Management					
Fidante Partners					
Equities	23,806	26,578	26,349	24,373	24,295
Fixed income	24,334	24,611	25,036	24,699	24,299
Alternatives	8,190	8,337	8,245	8,275	7,437
Total Fidante Partners	56,330	59,526	59,630	57,347	56,031
Challenger Investment Partners					
Fixed income	12,839	13,053	12,346	13,134	12,290
Property	5,845	5,654	6,008	5,876	5,107
Total Challenger Investment Partners	18,684	18,707	18,354	19,010	17,397
Total Funds Under Management	75,014	78,233	77,984	76,357	73,428
Average Fidante Partners	58,621	59,834	58,489	56,575	54,121
Average Challenger Investment Partners	18,747	18,670	18,807	17,921	16,852
Total average Funds Under Management¹	77,368	78,504	77,296	74,496	70,973
Analysis of flows					
Equities	(67)	(44)	(188)	404	(444)
Fixed income	(167)	(447)	230	242	770
Alternatives	(166)	(155)	(71)	758	(152)
Total Fidante Partners	(400)	(646)	(29)	1,404	174
Challenger Investment Partners	(155)	224	(685)	677	(2)
Net flows	(555)	(422)	(714)	2,081	172

¹ Average total Funds Under Management calculated on a monthly basis.

Reconciliation of total group assets and Funds Under Management

\$m	Q2 19	Q1 19	Q4 18	Q3 18	Q2 18
Funds Management (FUM)	75,014	78,233	77,984	76,357	73,428
Life investment assets	18,624	18,347	18,085	17,672	17,040
Adjustments to remove double counting of cross-holdings	(15,252)	(15,308)	(14,926)	(15,476)	(13,945)
Total Assets Under Management	78,386	81,272	81,143	78,553	76,523

Funds Management financial results

Funds Management focuses on the retirement savings phase of Australia's superannuation system by providing products seeking to deliver superior investment returns. Funds Management is also expanding into international markets.

As one of Australia's largest active investment managers, Funds Management invests across a broad range of asset classes including fixed income, commercial property and Australian and global equities. Funds Management comprises two business divisions: Fidante Partners and Challenger Investment Partners.

Fidante Partners forms long-term alliances with investment teams to create, support and grow specialist asset management businesses. Fidante Partners' deep experience in asset management, extensive investor relationship networks and operational infrastructure enable investment teams to focus on managing the investment portfolio.

Challenger Investment Partners (CIP) originates and manages fixed income and property assets for leading global and Australian institutions, including Challenger Life. CIP's clients benefit from a broad product offering and market insights, and in many instances co-invest with Challenger's Life business.

The Funds Management business is growing strongly, with funds under management (FUM) increasing by approximately 70% over the last five years to \$75bn.

EBIT and ROE

Funds Management EBIT was \$26m and decreased by \$1m (4%) on 1H18. The decrease in Funds Management EBIT was due to higher fee income (\$3m) being offset by an increase in expenses (\$4m). Net income benefited from higher FUM, partially offset by lower performance fees (down \$4m).

Excluding performance fees, Funds Management EBIT increased by 14%.

Funds Management ROE was 24.4% in 1H19 and decreased by 320 bps from 27.6% in 1H18. ROE was impacted by lower EBIT and higher average net assets. Average net assets were 9% higher than 1H18 due to an increase in the number of boutiques and increased working capital.

Total net fee income

1H19 net income was \$75m and increased by \$3m (up 4%) on 1H18. Net fee income increased as a result of higher average FUM (up 9%), higher Fidante Partners Europe transaction fees (up \$3m) and offset by lower Fidante Partners performance fees (down \$4m). 1H19 performance fees were impacted by the recent equity market volatility, with most mandates not achieving the requisite performance benchmarks.

Expenses

1H19 Funds Management expenses were \$49m and increased by \$4m (9%) on 1H18. Personnel expenses increased by \$2m, predominantly due to the establishment of the Japanese office. Other expenses increased by \$2m due to increased marketing and technology costs.

The 1H19 cost to income ratio was 65.3% and increased by 290 bps from 62.4% in 1H18.

Fidante Partners' net income

Fidante Partners' net fee income includes distribution fees, administration fees, transaction fees from Fidante Partners Europe, performance fees and a share in the equity-accounted profits of boutique investment managers.

Fidante Partners' net income was \$46m in 1H19, up \$3m (8%) from 1H18. Fidante Partners' net income increased as a result of higher average FUM (up 8%) and increased transaction fees from Fidante Partners Europe (up \$3m), partially offset by lower performance fees (down \$4m).

Fidante Partners' income margin (net income to average FUM) was 16 bps in 1H19 and was unchanged from 1H18. Fidante Partners' income margin was impacted by lower performance fees (-2 bps) and offset by higher Fidante Partners Europe capital raising transaction fees (+2 bps).

Fidante Partners' FUM and net flows

Fidante Partners' FUM at 31 December 2018 was \$56.3bn and decreased by \$3.3bn (6%) for the half year. The decrease in Fidante Partners' FUM for the half year was due to:

- net flows of -\$1.0bn; and
- negative investment markets (net of distributions) of -\$2.3bn as a result of lower domestic and international equity markets.

Fidante Partners' 31 December 2018 FUM is invested in the following asset classes:

- 42% in equities (FY18 44%);
- 43% in fixed income (FY18 42%); and
- 15% in alternatives (FY18 14%).

Fidante Partners Europe

Fidante Partners includes a European alternative investments group comprising interests in a number of specialist boutique fund managers, as well as a capital raising business serving the needs of listed, closed-end alternative investment companies.

Fidante Partners Europe is an important part of Funds Management's international distribution and product expansion. It provides a scalable platform to replicate Fidante Partners' multi-boutique platform in Europe and is helping to attract high-quality fund managers. In 2018, two new US-based boutique managers were added to Fidante Partners Europe, and in early 2019 a London-based manager was added.

Fidante Partners Europe FUM was \$8.0bn at 31 December 2018 and was broadly stable for the half year.

Challenger Investment Partners' net income

Challenger Investment Partners' (CIP) net income was \$29m in 1H19 and was unchanged from 1H18.

CIP's income margin (net income to average FUM) was 31 bps in 1H19 and decreased by 3 bps from 1H18. The reduction in CIP's income margin reflects lower property and fixed income transaction fees.

Challenger Investment Partners' FUM and net flows

CIP's FUM at 31 December 2018 was \$18.7bn and increased by \$0.3bn (2%) for the half year. The increase in CIP's FUM was due to:

- net flows of \$0.1bn, predominantly from Challenger Life; and
- positive market movement of \$0.2bn.

CIP's 31 December 2018 FUM is invested in the following asset classes:

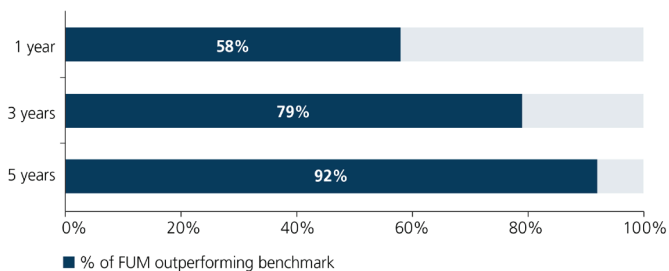
- 69% in fixed income (FY18 67%); and
- 31% in property (FY18 33%).

Third party clients accounted for 22% of CIP's 1H19 FUM, unchanged from FY18.

Funds Management investment performance

Investment performance represents the percentage of FUM meeting, or exceeding performance benchmarks for Fidante Partners Australian boutiques and CIP, with performance weighted by FUM.

Long term performance for both Fidante Partners and CIP remains strong with 92% of FUM outperforming benchmark over five years.



Corporate financial results

\$m	1H19	2H18	1H18	2H17	1H17	2H16	1H16
Other income	0.5	0.5	0.5	0.4	0.4	0.4	0.6
Personnel expenses	(19.0)	(21.7)	(20.1)	(20.7)	(17.8)	(19.1)	(18.0)
Other expenses	(5.5)	(4.6)	(5.8)	(6.1)	(5.8)	(6.6)	(6.4)
Total expenses (excluding LTI)	(24.5)	(26.3)	(25.9)	(26.8)	(23.6)	(25.7)	(24.4)
Long-term incentives (LTI)	(7.1)	(8.8)	(7.2)	(8.3)	(8.1)	(8.6)	(8.0)
Total expenses	(31.6)	(35.1)	(33.1)	(35.1)	(31.7)	(34.3)	(32.4)
Normalised EBIT	(31.1)	(34.6)	(32.6)	(34.7)	(31.3)	(33.9)	(31.8)
Interest and borrowing costs	(2.9)	(3.2)	(2.9)	(3.0)	(2.3)	(1.8)	(2.3)
Normalised loss before tax	(34.0)	(37.8)	(35.5)	(37.7)	(33.6)	(35.7)	(34.1)

The Corporate division comprises central functions such as Group executives, finance, treasury, legal, human resources, risk management and strategy.

Corporate also includes interest received on Group cash balances and any interest and borrowing costs associated with Group debt facilities.

Normalised EBIT

Corporate normalised EBIT was a loss of \$31m in 1H19, up \$2m on 1H18 as a result of lower expenses.

Other income

1H19 other income was unchanged on 1H18 and represents interest received on Group cash balances.

Group cash at 31 December 2018 was \$88m.

Total expenses

1H19 Corporate expenses were \$32m and decreased by \$1m on 1H18.

Corporate expenses include personnel costs of \$19m, which decreased by \$1m on 1H18. Other expenses were \$6m in 1H19 and were unchanged from 1H18.

Long-term incentive costs of \$7m in 1H19 relate to the non-cash amortisation of equity grants. Long-term incentive costs were unchanged from 1H18.

Interest and borrowing costs

1H19 interest and borrowing costs relate to debt facility fees on the Group's banking facility. 1H19 interest and borrowing costs were \$3m and were unchanged from 1H18.

The Group maintains a \$400m banking facility in order to provide financial flexibility. The Group banking facility was undrawn throughout 1H19.

Normalised Cash Operating Earnings framework

Life normalised Cash Operating Earnings (COE) is Challenger's preferred profitability measure for the Life business, as it aims to reflect the underlying performance trends of the Life business.

The Life normalised COE framework was introduced in June 2008 and has been applied consistently since.

The framework removes the impact of market and economic variables, which are generally non-cash and a result of external market factors. The normalised profit framework is subject to a review performed by Ernst & Young each half year.

Life normalised COE includes cash earnings plus normalised capital growth, but excludes investment experience (refer below).



Cash earnings

Cash earnings represents investment yield and other income, less interest expenses and distribution expenses.

Investment yield

Represents the investment return on assets held to match annuities and the return on shareholder investment assets.

Investment yield includes net rental income, dividend income, infrastructure distributions, accrued interest on fixed income and cash, and discounts/premiums on fixed income assets amortised on a straight-line basis.

Interest expense

Represents interest accrued at contracted rates to annuitants and Life subordinated debt holders and other debt holders.

Distribution expenses

Represents payments made for the acquisition and management of Life's products, including annuities.

Other income

Other income includes revenue from Accurium and profits on Life Risk wholesale longevity and mortality transactions (refer to page 21).



Normalised capital growth

Normalised capital growth represents the expected capital growth for each asset class through the investment cycle, and is based on Challenger's long-term expected investment returns for each asset class.

Normalised capital growth can be determined by multiplying the normalised capital growth assumption (see below) by each asset class's average balance for the period (net of debt).

Normalised capital growth assumptions for 1H19 are as follows:

- Fixed income and cash – -35bps, representing an allowance for credit default losses;
- Property – 2.00%;
- Infrastructure – 4.00%; and
- Equity and alternative asset classes – 4.50%.

Normalised capital growth assumptions have been set with reference to long-term market growth rates and are reviewed regularly to ensure consistency with prevailing medium to long-term market returns.



Investment experience

Challenger Life is required by accounting standards and prudential standards to value all assets and liabilities supporting the Life business at fair value. This gives rise to fluctuating valuation movements on assets and policy liabilities being recognised in the profit and loss, particularly during periods of market volatility. As Challenger is generally a long-term holder of assets, due to them being held to match the term of life liabilities, Challenger takes a long-term view of the expected capital growth of the portfolio rather than focusing on short-term movements.

Investment experience removes the volatility arising from asset and liability valuation movements so to more accurately reflect the underlying performance of the Life business.

Investment experience includes both asset and liability experience and net new business strain.

Asset and liability experience

Challenger Life is required by accounting standards and prudential standards to value all assets and liabilities supporting the Life business at fair value. Asset and liability experience is calculated as the difference between actual investment gains/losses (both realised and unrealised and based on fair value) and the normalised capital growth in relation to assets plus any economic and actuarial assumption in relation to policy liability changes for the period.

Changes in macroeconomic variables impact the value of Life's assets and liabilities. Macroeconomic variables and actuarial assumption changes include changes to bond yields, inflation factors, expense assumptions, and other factors applied in the valuation of life contract liabilities.

New business strain

In accordance with Australian Accounting Standards, Challenger Life values term annuities at fair value and lifetime annuities using a risk-free discount rate, both of which are based on the Australian Government bond curve plus an illiquidity premium.

Life tends to offer annuity rates which are higher than these rates. As a result, on writing new annuity business, a non-cash loss is recognised when issuing the annuity contract due to a lower discount rate used to value the liability. In addition, maintenance expense allowances over the expected future term of new business are also included in the policy liability valuation.

New business strain is a non-cash item and subsequently reverses over the future period of the contract. The new business strain reported in the period represents the non-cash loss on new sales net of the reversal of the new business strain of prior period sales.

Glossary of terms

Terms	Definitions
Additional Tier 1 regulatory capital	High-quality capital that provides a permanent and unrestricted commitment and is freely available to absorb losses, but does not satisfy all the criteria to be included in Common Equity Tier 1 regulatory capital.
Capital intensity ratio	CLC Prescribed Capital Amount (PCA) divided by Life investment assets.
Cash earnings (Life)	Investment yield and other income less interest and distribution expenses.
CET1 ratio	Common Equity Tier 1 regulatory capital divided by Prescribed Capital Amount.
CIP income	CIP income includes asset-based management fees, and other income such as leasing fees, acquisition and disposal fees, development and placement fees.
Common Equity Tier 1 regulatory capital	The highest quality capital comprising items such as paid-up ordinary shares and retained earnings. Common Equity Tier 1 capital is subject to certain regulatory adjustments in respect of intangibles and adjusting policy liabilities.
Distribution expenses (Life)	Payments made for the acquisition and management of annuities and other Life products.
Earnings per share (EPS)	Net profit after tax divided by weighted average number of shares in the period.
Fidante Partners' Income	Distribution and administration fees; Fidante Partners' share of boutique manager profits; and other income from boutique investment managers.
Funds under management (FUM)	Total value of listed and unlisted funds/mandates managed by the Funds Management business.
Group assets under management	Total value of Life's investment assets and Funds Management FUM.
Group cash	Cash available to Group, excluding cash held by Challenger Life Company Limited.
Interest and borrowing costs (Corporate)	Interest and borrowing costs associated with group debt and group debt facilities.
Interest expenses (Life)	Interest accrued and paid to annuitants, subordinated debt note holders and other debt providers (including Challenger Capital Notes).
Investment experience (Life)	Represents fair value movements on Life's assets and policy liabilities and net new business strain. Refer to pages 50 and 51 for more detail.
Investment yield (Life)	Net rental income, dividends received and accrued interest and discounts/premiums on fixed income securities amortised on a straight-line basis.
Investment yield – shareholders funds (Life)	Represents the return on shareholder capital held by the Life business.
Life annuity book growth	Net annuity policy capital receipts over the period divided by the opening policy liabilities (Life annuity book).
Life book growth	Net annuity and other policy capital receipts over the period divided by the opening policy liabilities (Life annuity book, Guaranteed Index Return liabilities and Challenger Index Plus Fund liabilities).
Life investment assets	Total value of investment assets that are managed by the Life business.
Net annuity policy receipts	Life retail annuity sales less annuity capital payments.
Net assets – average (Group)	Average net assets over the period (excluding non-controlling interests) calculated on a monthly basis.
Net fee income (FM)	Fidante Partners' income and performance fees (FM) and Challenger Investment Partners' income and performance fees.
Net Interest Margin (NIM)	Net Interest Margin on term-funded prime mortgages and included as part of Life's investment assets.
Net management fees (FM)	Management fees for managing investments.

Glossary of terms

Terms	Definitions
Net tangible assets	Consolidated net assets less goodwill and intangibles.
New business tenor	Represents the maximum product maturity of new business sales. These products may amortise over this period.
Normalised capital growth	Long-term expected capital growth based on long-term return assumptions calculated as long-term capital growth assumption multiplied by average investment assets.
Normalised Cash Operating Earnings (NCOE) (Life)	Cash earnings plus normalised capital growth.
Normalised cost to income ratio	Total expenses divided by total net income.
Normalised dividend payout ratio	Dividend per share divided by normalised earnings per share (basic).
Normalised EBIT (Life)	Normalised Cash Operating Earnings less total Life expenses.
Normalised EBIT (FM)	Net income less total expenses.
Normalised tax rate	Normalised tax divided by normalised profit before tax.
Normalised Return On Equity (ROE) – pre-tax	Normalised Life EBIT, FM EBIT, and/or Normalised NPBT (Group) divided by average net assets.
Normalised Return On Equity (ROE) – post-tax	Group's normalised NPAT divided by average net assets.
Other expenses	Non-employee expenses, including external professional services, occupancy costs, marketing and advertising, travel, technology and communications costs.
Other income (Corporate)	Includes interest received on Group cash balances.
Other income (Life)	Relates to Accurium revenue and Life Risk. Refer to page 21 for more detail.
Performance fees (FM)	Fees earned for outperforming benchmarks.
Personnel expenses	Includes fixed and short-term variable incentive components of remuneration structures. The amortisation of long-term incentive plans is reported separately within the Corporate results.
PCA ratio	The ratio of the total CLC Tier 1 and Tier 2 regulatory capital base divided by the Prescribed Capital Amount.
Prescribed capital amount (PCA)	Amount of capital that a life company must hold which is intended to be sufficient to withstand a 1-in-200-year shock and still meet adjusted policy liabilities and other liabilities. For further details refer to APRA's LPS110 Capital Adequacy.
Product cash margin (Life)	Represents the return on assets backing annuities and other income, less interest and distribution expenses.
Significant items	Non-recurring or abnormal income or expense items.
Statutory Return On Equity (ROE) – post-tax	Statutory NPAT divided by average net assets.
Tier 1 regulatory capital	Tier 1 regulatory capital comprises Common Equity Tier 1 regulatory capital and Additional Tier 1 regulatory capital.
Tier 2 regulatory capital	Tier 2 regulatory capital contributes to the overall strength of a Life company and its capacity to absorb losses, but does not satisfy all the criteria to be included as Tier 1 regulatory capital.
Total expenses	Personnel expenses plus other expenses.
Total net income	Normalised Cash Operating Earnings (Life) plus net fee income (FM) plus other income (Corporate).

Key dates

Challenger Limited (CGF)

Q319 Sales and AUM	17 April 2019
2019 Investor Day	20 June 2019
2019 Full-year financial results	13 August 2019
Q120 Sales and AUM	16 October 2019
2019 Annual General Meeting	31 October 2019

Challenger 2019 Interim Dividend

Ex-dividend date	26 February 2019
Record date	27 February 2019
DRP election date	28 February 2019
Payment date	26 March 2019

Challenger 2019 Final Dividend

Ex-dividend date	30 August 2019
Record date	2 September 2019
DRP election date	3 September 2019
Payment date	25 September 2019
