



Aviva plc

Annual report and accounts 2018

Foreword

The Strategic report on pages 1 to 38 contains information about Aviva, how we create value and how we run our business. It includes our strategy, business model, market outlook and key performance indicators, as well as our approach to sustainability and risk.

The digital format of this report ensures we are ready for guidelines relating to the Financial Reporting Council's Digital Reporting and ESMA European Single Electronic Format.

To supplement the regulatory disclosures in this report, you can find more regular news and insights into Aviva throughout the year on our website at www.aviva.com.

The Strategic report is only part of the Annual report and accounts 2018. The Strategic report was approved by the Board on 6 March 2019 and signed on its behalf by Sir Adrian Montague, Chairman.

Non-Financial Reporting Regulations

Under sections 414CA and 414CB of the Companies Act 2006, as introduced by the Companies, Partnerships and Groups (Accounts and Non-Financial Reporting) Regulations 2016, Aviva is required to include, in its Strategic Report, a non-financial statement.

Information required by these Regulations is included in Key performance indicators from page 5, Business model from page 8, Our people from page 11, Risk and risk management from page 30 and Corporate responsibility from page 34.

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As a reminder

Reporting currency:

We use £ sterling.

Unless otherwise stated, all figures referenced in this report relate to Group.

A glossary explaining key terms used in this report is available on www.aviva.com/glossary.

The Company's registered office is St Helen's, 1 Undershaft, London, EC3P 3DQ

The Company's telephone number is +44 (0)20 7283 2000

[Chairman's statement](#)

Chairman's statement

Aviva has a vital social purpose; we help people to handle life's uncertainties with confidence. Last year we paid £32.9 billion in claims and benefits on behalf of our 33 million customers. This purpose is becoming all the more important when one considers the growing pace of global change. Whether it is economic, political, technological or environmental challenge, our customers are facing unprecedented change in the way our societies work.

Against this backdrop, Aviva has the experience and strength, the values and the people to do the right thing for our customers and our shareholders. By working harder to deliver outstanding service, we also have the potential to do even better.

New leadership

I am delighted that on 4 March 2019 we announced the appointment of Maurice Tulloch as Aviva's new Chief Executive Officer. Maurice joined Aviva in 1992 and was previously Aviva's Chief Executive Officer, International Insurance with responsibility for our life insurance and general insurance operations in France, Canada, Ireland, Italy, Poland, Turkey and India. Prior to that he was Chief Executive Officer of Aviva UK and Ireland General Insurance, one of the largest businesses in the Aviva group. Having spent 26 years with the Company, Maurice knows the Aviva business inside out, knows our strengths, and where we need to improve. He is exceptionally well qualified to re-energise Aviva and deliver long-term growth.

Maurice's appointment follows on from the announcement in October that Mark Wilson would step down from the Board. Mark was brought in to deliver the turnaround of Aviva. He succeeded admirably, leaving us in a strong financial position and with an enduring set of values. But the time is right for new leadership to take us to the next phase of Aviva's development.

Board changes

We announced in January that Michael Hawker will retire from the Board as a Non-Executive Director, and as Chairman of the Risk Committee and as a member of the Audit and Nominations Committees, with effect from 31 March 2019. He has served as a Non-Executive Director since January 2010. We would like to thank Michael for his enormous contribution to Aviva over the past nine years. He has brought to the Board a wealth of knowledge and experience gained over a long career in the banking and insurance industries in both executive and non-executive roles in Europe, Asia and Australia, and has been a distinguished Chairman of the Risk Committee. The appointment of the new Risk Committee Chair is well advanced, and will be announced following the completion of the relevant regulatory approval process.

Our people

Ultimately, I am confident we can and will unlock our full potential, both through the focus of our new Chief Executive Officer and the skills, commitment and values of our people.

It is our people who make Aviva and who are there to deliver on our purpose, which is why a strong culture is so important. Overall our employee engagement score is consistent with 2017 at 76% globally. I'm pleased to note that in the last year, colleagues have seen significant positive shifts in the culture at Aviva with a 12-point increase in the headline culture measure which is an output of a suite of metrics including customer focus, leadership and operational simplicity. For 2019 we will work to further strengthen the culture through simplifying the way we do things and further promoting inclusive diversity, on which you can read more in the people section on page 11.

Our communities

We also remain determined to be a responsible, sustainable business. It is important for us to contribute to the communities where we work as well as the customers we are here to serve.

We have campaigned successfully on behalf of consumers to tackle fraud in Canada, Ireland and the UK. We have reduced our carbon footprint by 60% since 2010 and have developed our relationship with the British Red Cross to sign up volunteers to help their neighbours when a crisis hits. The Aviva Community Fund is active in ten markets around the world and our newly created Aviva Foundation has ambitious plans, helping us support over 2.5 million people through our community activities by 2020.

As a long-term business, we care not only about today's communities, but also tomorrow's. To that end, I am particularly proud that in October 2018 the United Nations Foundation presented Aviva with its prestigious leadership award, recognising our work to promote the UN's Sustainable Development Goals.

Looking ahead

At the time of writing, Brexit is looming large as the biggest change that many will have experienced for a generation. We still do not know how events will play out, but our structure means that we expect Britain's departure from the EU to have no significant operational impact on Aviva. We have put in place detailed plans to make sure we will be there for our customers, come what may.

There will no doubt be more shifts in our operating environment in the months and years to come, just as there has been in our more than 300-year history. Amidst the change, our strategy will evolve, but our commitment to our customers remains constant.

Sir Adrian Montague

Chairman

6 March 2019

Chairman's review

Overview

Saving for the future, drawing a secure pension income, or protecting against unforeseen events, all these are fundamental to our customers' well-being. Supporting customers in these areas, and more, is Aviva's lifeblood and, through this commitment to serving customers, we will earn the returns our shareholders expect.

To provide customers with security and peace of mind, it is imperative to have strong financial foundations. Our capital position makes Aviva a partner that our customers can count on. In 2018, our Solvency II capital surplus⁴ remained strong at £12.0 billion, equivalent to a Solvency II shareholder cover ratio^{2,4} of 204%. We increased our Solvency II shareholder cover ratio^{2,4} in 2018 despite weaker investment markets and deploying £1.5 billion to repay debt and repurchase shares. And, in 2018, Group adjusted operating profit¹ rose 2% to £3.1 billion, while operating earnings per share^{2,3} increased 7% to 58.4 pence. IFRS profit before tax attributable to shareholders' profits was £2,129 million (2017: £2,003 million).

In view of Aviva's continued financial strength and steady performance, the Board of Directors has proposed a 9% increase in the full year dividend to 30.0 pence per share. We are moving to a progressive dividend policy. Moderating the rate of dividend per share growth will enhance our flexibility to repay debt and invest in business improvement. The future trajectory of the dividend will reflect performance against our strategic objectives.

There were a number of operational highlights during the year

In 2018, Aviva's businesses maintained a disciplined approach in competitive markets.

In the UK, our business has consolidated its position and we are seeing encouraging results across long-term savings, bulk purchase annuity and general insurance product lines. In 2018, a strong pipeline of workplace pension scheme wins helped to sustain long-term savings flows and we wrote our largest ever bulk purchase annuity contract, a £925 million transaction with Marks and Spencer. We launched AvivaPlus, our new subscription style insurance that offers greater flexibility and choice, giving our customers even more control and rewarding their loyalty.

Our European businesses have been invigorated through intelligent choices on product design and mix and a focus on expanding our distribution footprint. In France, we have begun the process of bringing our multi-channel distribution under the Aviva brand, and there is more work to do on that in the coming year. In Italy, our success in the financial adviser channel has paved the way for sustained growth in sales volumes. In Ireland, we completed the acquisition of Friends First, strengthening our position in life insurance.

In our general insurance businesses, we have continued to prioritise profitability over sales volumes. While our Canadian motor insurance portfolio is in the early stages of its recovery and an

increase in weather related claims provided a headwind for profits across all of our general insurance businesses, the Group combined operating ratio² of 96.6% remained acceptable.

In Asia, we have a mix of established and emerging businesses and we have continued to invest in their development. In our largest Asian business, Singapore, our advisory distribution network has continued to expand, providing customers with wider product choice and stimulating growth in sales and profits.

Digital remains an important element of Aviva's strategy of improving customer experience. In the UK, the number of active customers registered on MyAviva rose 48% to 4.2 million with 700,000 customers logging into MyAviva each month to transact online or to check policy information. We have launched new propositions with AvivaPlus, MyAviva Workplace and Wealthify creating a strong platform for the future. In Hong Kong, following receipt of regulatory approval, we launched "Blue", our digital insurance venture with Tencent and Hillhouse, which offers customers in Hong Kong a new way to buy insurance.

But we also faced a number of challenges

Externally, uncertainty in the political and economic backdrop intensified during the year and this was reflected in a difficult year for investment market performance across most asset classes. In our home market, the UK, the prolonged and fraught process of negotiating Britain's exit from the European Union has weighed down on growth in the economy. But Aviva is well placed to deal with this; our locally incorporated and locally regulated businesses in Europe have prepared to minimise the potential operational impact.

The regulatory environment also continues to evolve, requiring our businesses to adapt and, in some cases, provide remediation for past practices. The shifting external environment, coupled with competitive insurance and savings markets, has provided a challenging macro-environment in which to operate. The resilience built into Aviva's capital position and operating model over recent years has allowed us to overcome these challenges and continue to serve customers across all our markets.

There were also challenges of our own making, including our announcement in March 2018 that we were "evaluating alternatives" for the Aviva plc and General Accident plc preference shares. While we responded quickly to certain investor concerns by withdrawing from further action and paid £10 million in goodwill and administration costs to compensate those who incurred losses from selling these securities during this period, it was a disappointing episode and lessons have been learned.

We also responded to challenges in our UK business. We encountered disruption during the migration of our independent financial adviser platform to a new supplier, which adversely affected our service standards. Our teams worked hard to resolve these challenges and advisers are now starting to benefit from the improved functionality and processing capability that the new platform offers. We also increased the amount set aside for customer redress in relation to historical advised sales by Friends Provident to £250 million (2017: £75 million). Over 90% of cases identified are pre-2002.

Financial performance was steady

2018 has been a year of steady performance overall for Aviva. Our businesses have delivered broad-based growth, with six out of our eight major markets increasing adjusted operating profit¹ in 2018.

1 Group adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to note B in the 'Accounting Policies' section and to the 'Other Information' section within the Annual report and accounts for further information.

2 This is an Alternative Performance Measure (APM) which provides useful information to supplement an understanding of our financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

3 This measure is derived from the Group adjusted operating profit APM. Further details of this measure are included in the 'Other Information' section of the Annual report and accounts.

4 The estimated Solvency II position represents the shareholder view. Please refer to note 57 and the 'Other information' section of the Annual report and accounts for more information.

We have maintained profit momentum in our UK and European insurance businesses and Canada has responded well to the challenges in the auto insurance portfolio that emerged in 2017. Aviva Investors was set back by a difficult investment market backdrop, though we have chosen to continue investing to facilitate the long-term expansion of our third-party franchise.

In the UK, our results have continued to benefit from releases of provisions arising from changes in UK longevity trends. However, as in 2017, we continued to use this additional profitability to increase spending to advance our digital innovation agenda and accelerate the transformation programme in IT and Finance that will provide benefits to Aviva in the years to come.

Leadership and priorities

In October 2018, we announced that Mark Wilson would step down from his role as Chief Executive Officer. In almost six years under Mark's leadership, Aviva transformed its capital strength, refined its focus towards those markets with the strongest returns and growth prospects and invested in digital capabilities and propositions that will differentiate Aviva in the insurance and savings market place in the coming years.

From these strong foundations, Aviva is entering a new phase of its development. We recently announced the appointment of Maurice Tulloch as Chief Executive Officer. Maurice will work with the Board to establish and refine the strategy that will take Aviva forward in the coming years.

Maurice will be an outstanding Chief Executive of Aviva. He knows the business inside out. He has led our businesses in the UK and internationally and built strong teams across life insurance and general insurance. Maurice knows our strengths, knows where we need to improve and has a deep understanding of insurance and customers' needs. He is exceptionally well qualified to re-energise Aviva and deliver long-term growth.

Having made Aviva stronger, the focus of the next phase is to make Aviva a better company. This means re-emphasising the fundamentals: customer service, distribution, product mix and pricing, and managing expenses. There is much more we can and will achieve.

Outlook

The coming year is shaping up as an important period for Aviva. The arrival of our new Chief Executive will have a galvanising effect on our organisation, providing renewed clarity of purpose. Aviva has abundant strengths: committed and energetic staff, depth in technical expertise, supportive partners and most importantly, 33 million customers. Our challenge is to capitalise on these strengths to become a better, simpler, more efficient company known for excellence in serving customers. This will require significant improvements by Aviva. It will also entail choices with respect to resource allocation. However, our strong existing foundations give us all we need to ensure the new phase Aviva is embarking on will be a success.

Sir Adrian Montague

Chairman

6 March 2019

Delivering on a clear plan of action

	Financial & Strategic	Customers	Culture and Society
What we achieved	<p>For our key metrics, we have:</p> <ul style="list-style-type: none"> Increased Group adjusted operating profit¹ by 2% to £3,116 million (2017: £3,068 million) Increased operating earnings per share (EPS)^{2,3} by 7% to 58.4p (2017: 54.8p) Increased profit before tax attributable to shareholders' profit by 6% to £2,129 million (2017: £2,003 million) and increased basic EPS by 9% to 38.2p (2017: 35.0p) Increased cash remittances² to Group by 31% to £3,137 million (2017: £2,398 million) Increased total dividend per share by 9% to 30.00p (2017: 27.40p) Delivered a robust Solvency II capital position with an estimated Solvency II shareholder cover ratio^{2,5} that has increased by 6pp to 204% (2017: 198%), despite £1.5 billion of capital deployment. This includes operating capital generation² in the year of £3.2 billion Reported total assets under management² of £470 billion – a decrease of £17 billion on 2017 Grown MyAviva active customer registrations to 5.3 million (2017: 3.6 million⁴) <p>Acquisitions and disposals:</p> <ul style="list-style-type: none"> We completed our acquisition of Friends First in Ireland We completed the sale of our Spanish joint ventures: Caja Murcia Vida, Caja Granada Vida and Pelayo Vida; our Taiwanese joint venture First Aviva Life; and completed the sale of our joint venture in Italy, Avipop Assicurazioni S.p.A., and its wholly owned subsidiary Avipop Vita S.p.A. We sold a Real Estate Multi-Manager business which was strategically non-core to our Aviva Investors business 	<p>For our customers, we have:</p> <ul style="list-style-type: none"> Paid out £32.9 billion in claims and benefits Supported our customers through difficult times including notable UK storm "the Beast from the East", as well as poor weather in Canada Launched AvivaPlus in the UK in December 2018, our new subscription style insurance that offers greater flexibility and choice, giving our customers even more control and rewarding their loyalty Announced a majority shareholding in Neos, the smart technology insurance provider which helps customers to monitor and protect their homes through connected devices Successfully piloted "Mid-life MOT" which offers guidance and help to over 45s on the topics of wealth, work and wellbeing Our successful Road to Reform campaign helped bring significant changes to the personal injury compensation system in the UK, culminating in the civil liability bill passing into law Launched Blue, our new digital insurance joint venture in Hong Kong, offering zero commission insurance Introduced a smartphone dashcam through our UK Aviva Drive app Won a number of awards including Insurance Times General Insurer of the year and Insurance Post customer care award 	<p>For our people, we have:</p> <ul style="list-style-type: none"> Improved employee engagement to 76% (2017: 75%) and we have achieved a 12-point increase in our Organisational Health questionnaire (our headline culture metric) Extended our flagship leadership programme to all leaders with 1,500 people leaders starting it in 2018 Launched our employee inclusion communities across all markets Continued to build a culture and environment which attracts and retains people with the right capabilities for the future <p>For society, we have:</p> <ul style="list-style-type: none"> Supported over 3,000 community projects, helping over 1.5 million people on a range of issues from social inclusion and diversity to supporting SMEs and water sanitation Won the UN Foundation's leadership award in recognition of Aviva's work to support the UN's Sustainable Development Goals (SDGs) Launched the World Benchmarking Alliance to establish public, transparent and authoritative league tables of companies' contribution to the SDGs Since 2010 we have reduced carbon emissions (CO₂e) from our day-to-day operations by 60% beating our 2020 target early. We are a carbon neutral company, offsetting the remaining emissions through projects that have benefitted the lives of over one million people Invested £1.8 billion in the transition to a low carbon economy Over 7,000 of our employees contributed more than 57,500 hours of volunteering time, giving and fundraising to the total of £2.1 million
What we plan to do	<ul style="list-style-type: none"> Further simplify processes and operating model, investing in modernisation to improve agility and efficiency Aim to repay £1.5 billion of maturing debt between 2019-2022 Move to a progressive dividend policy Target an estimated Solvency II shareholder cover ratio^{2,5} working range of 160%-180% 	<ul style="list-style-type: none"> Improve customer experience through simplification of customer journeys, digitisation and automation Roll out AvivaPlus for our UK customers Continue to reallocate capital to focus on what we do best and drive higher returns 	<ul style="list-style-type: none"> Allow our people to manage the fundamentals to ensure we can deliver continued growth for Aviva Develop great leaders with a focus on agility and execution Continue to focus on developing an inclusive workforce which is fit for the future

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3 This measure is derived from the Group adjusted operating profit APM. Further details of this measure are included in the 'Other Information' section of the Annual report and accounts.

4 The 2017 MyAviva active registrations number (7.5 million as previously reported) has been restated to now only include customers who hold at least one policy with us and have been active on MyAviva in the last 365 days. On the restated basis, 2017 active customer registrations were 3.6 million.

5 The estimated Solvency II position represents the shareholder view. Please refer to note 57 and the 'Other information' section of the Annual report and accounts for more information.

[Key performance indicators](#)

Key performance indicators

We use a range of financial and non-financial metrics to measure our performance, financial strength, customer advocacy, employee engagement and impact on society. These include Alternative Performance Measures (APMs) which are non-GAAP measures that are not bound by the requirements of IFRS. These metrics are reviewed annually and updated as appropriate to ensure they remain an effective measure of delivery against our objectives.

Further guidance in respect of the APMs used by the Group to measure our performance and financial strength is included within the 'Other Information' section of the Annual report and accounts. This guidance includes definitions and, where possible, reconciliations to relevant line items or sub-totals in the financial statements. The financial commentary included in this Strategic report should be read in conjunction with this guidance.

Customer Net Promoter Score® (NPS®) R

NPS® is our measure of customer advocacy and we use it in nine of our markets¹ to measure the likelihood of a customer recommending Aviva. Our relationship NPS® survey shows three years of sustained high levels of customer advocacy, with modest improvement in the last 12 months. We are working hard to boost customers' loyalty by making things simple for customers and putting them in control, for example with the launch of AvivaPlus.

Number of markets in 2018:
at or above market average: **8**
2017: 7 2016: 9

below market average: **1**
2017: 2 2016: 0

Engagement R

We give our people the freedom to act in line with our values to create an environment in which they can thrive through collaboration and recognition. We measure this through our annual global 'Voice of Aviva' survey. Engagement is up one percentage point to 76%. In the last year, colleagues have seen significant positive shifts in the culture at Aviva with a 12-point increase in the headline culture measure reflecting this although we recognise there is still plenty of opportunity to reduce complexity across the business.

2018:
76%

2017: 75%
2016: 74%

Carbon emissions reduction

Since 2010 we have reduced carbon emissions (CO₂e) from our day-to-day operations by 60% beating our 2020 target of a 50% reduction earlier than planned. We are a carbon-neutral company, offsetting the remaining emissions through projects that have benefitted the lives of over one million people since 2012. In 2018 we have continued to reduce our operational carbon emissions through energy efficient technology, buildings and development of onsite renewable electricity generation. We have also added £1.8 billion in low carbon infrastructure investments over the year. CO₂e data includes emissions from our buildings, business travel, water and waste to landfill.

2018:
60%
Reduction since 2010

2017: 53%
2016: 46%

MyAviva active customer registrations² R

We continue to make progress with our digital transformation and MyAviva remains at its heart. Active customer registrations is the number of global users of MyAviva and other digital platforms, who have at least one product and have logged-in at least once during the previous 365 days. Active customer registrations have increased by 47% to 5.3 million (2017: 3.6 million²) driven mainly by growth in the UK.

2018:
5.3 million

2017: 3.6 million²
2016: 2.7 million²

R Symbol denotes key performance indicators used as a base to determine or modify remuneration.

¹ All comparators have been restated as we have reduced the number of markets covered in the survey from ten to nine markets as India was not surveyed in 2018.

² The 2017 and 2016 MyAviva active registrations numbers (7.5 million and 5.2 million respectively as previously reported) have been restated to now only include customers who hold at least one policy with us and have been active on MyAviva in the last 365 days. On the restated basis, 2017 active customer registrations were 3.6 million (2016: 2.7 million). Active registrations previously included guests as well as customers.

Group adjusted operating profit¹ R

Group adjusted operating profit¹ increased by 2% to £3,116 million. Major markets' Group adjusted operating profit¹ increased by 7% to £3,669 million, with all major markets except Aviva Investors and Canada experiencing earnings growth.

2018:
£3,116 million

2017: £3,068 million
2016: £3,010 million

Operating earnings per share^{2,4} R

Operating earnings per share^{2,4} increased by 7% to 58.4p. This reflects the growth in Group adjusted operating profit¹ and the impact of our share buy-back and debt reduction programme. We have met our target to deliver higher than 5% growth in operating earnings per share^{2,4} in 2018.

2018:
58.4p

2017: 54.8p
2016: 51.1p

Profit before tax attributable to shareholders' profit (PBT)

Profit before tax attributable to shareholders' profit increased by 6% to £2,129 million due to an increase in Group adjusted operating profit¹ and other items, partly offset by adverse investment variances.

2018:
£2,129 million

2017: £2,003 million
2016: £1,193 million

Cash remittances² R

Sustainable cash remittances² from our businesses are a key financial priority. Remittances from markets increased 31% to £3,137 million. This was primarily driven by the UK³ businesses which contributed £2,549 million including £1.25 billion special remittances, comprising a £500 million special remittance following the Friends Life integration and an additional £750 million special remittance. Including disposal proceeds from Spain and Avipop, we achieved £7.9 billion in cash remittances for 2016-2018 falling slightly short of our £8.0 billion target. This primarily reflects the delay in the completion of the disposal of Friends Provident International Limited and our decision to retain proceeds from the sale of Avipop in our Italian subsidiary given the high market volatility environment.

2018:
£3,137 million

2017: £2,398 million
2016: £1,805 million

Estimated Solvency II shareholder cover ratio^{2,5}

We continue to maintain our strong financial position. During the year the estimated Solvency II shareholder coverage ratio^{2,5} has strengthened from 198% to 204% primarily due to the positive impact of Operating Capital Generation (OCG)², a key remuneration metric for the Group, partly offset by the payment of dividends, the £600 million share buy-back programme and the repayment of hybrid debt.

2018:
204%

2017: 198%
2016: 189%

Value of new business on an adjusted Solvency II basis²

Value of new business on an adjusted Solvency II basis (VNB)² measures growth and is the source of future cash flows in our life businesses. VNB² decreased by 3% to £1,202 million, however excluding disposals VNB² increased by 2%. Growth was mainly driven by the hybrid savings product in Italy and bulk purchase annuities in the UK.

2018:
£1,202 million

2017: £1,243 million
2016: £992 million

Combined operating ratio²

The combined operating ratio (COR)² is a measure of general insurance profitability. The lower the COR² is below 100%, the more profitable we are. Reported COR² is broadly in line with 2017 for all markets.

2018:
96.6%

2017: 96.6%
2016: 94.2%

R Symbol denotes key performance indicators used as a base to determine or modify remuneration.

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3 Cash remitted to Group is managed at a legal entity level. As Ireland constitutes a branch of the United Kingdom business, cash remittances from Ireland were not aligned to the management structure within Europe, but they were reported within the United Kingdom.

4 This measure is derived from the Group adjusted operating profit APM. Further details of this measure are included in the 'Other Information' section of the Annual report and accounts.

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[The horizon: where the world is going](#)

The horizon: where the world is going

Our strategy has been defined to anticipate these long-term trends which will impact our industry in the future. We acknowledge the risks they present and aim to turn these trends into opportunities for future growth.

The power of communities

Government influence is reducing as the role of 'communities' of mutual interests and connected networks, both virtual and local, increases.

Daily active Facebook users on average

1.5 billion

Source: facebook.com, stats, September 2018

Ever-changing planet

Changing climate and extreme weather events will have a significant impact on both society and business.

Economic loss in US dollars caused by global natural disasters in 2018

\$160 billion

Source: Munich Re, catastrophe losses, January 2019

Shifting wealth

Developing markets will have a much larger share of the world's savings and assets pool.

Estimated Global Insurance premium share of growth from emerging economies by 2025

47%

Source: Munich Re, April 2017

Older and healthier

People will live longer and be healthier. Markets will be driven increasingly by attitudes and needs as family structures evolve and pressures on social care increase.

Increase in UK's average life expectancy at birth between 2016 and 2066

6.6 years

Source: Office for National Statistics, December 2017

Health across an evolving world

The way people access healthcare is evolving, with many markets shifting towards a more self-reliant model and private healthcare.

Average increase in UK and French doctors recommending smartphone apps to patients (for their own use/evaluation) between 2015 and 2017

30%

Source: Ipsos Mori, May 2017

No place like home

Home ownership, and its place as a wealth accumulation vehicle, begins to evolve as mindsets towards ownership shift and affordability affects accessibility.

Proportion of UK households that will be rented privately by 2021

25%

Source: Knight Frank, August 2017

New threats in a connected world

The proliferation of connected devices and the dominant role of social networks in modern life is raising the threat from cyber attacks and infringements to privacy.

Average cost of a data breach

US\$3.62 million

Source: EY Global Information Security Survey 2018-2019

Mobility

Disruption to radically change the transport ecosystem, with consumers accessing, owning and using transport in different ways.

Number of fewer cars required in the US and Europe by 2030

138 million

Source: PWC, January 2018

Blurring of sector boundaries

The clear boundaries between sectors no longer exist, from technology companies offering financial services to telecom providers creating media content.

Increase in Apple Pay transactions in 2018 vs 2017

3x

Source: Apple, November 2018

Read about where the world is going at www.aviva.com/about-us

Business model

Aviva exists to help our 33 million customers have the confidence and control to be ready for life's opportunities and challenges. We are the only large-scale multi-line insurer in the UK, our home market. We also have a strong presence in Europe, North America and South-East Asia.

We have a distinctive approach. It defines and differentiates us. It helps us meet our customers' needs ...

Values

Our values are at the heart of how we do business. They are how we must operate:

- Care More
- Kill Complexity
- Never Rest
- Create Legacy

Strengths

We have unique strengths as a business that gives us a significant competitive advantage:

- Distinctive brand
- Financial strength
- Customer understanding
- Multi-distribution
- Multi-product

Skills

We have a wide range and blend of skills:

- Customer experience
- Underwriting
- Risk management
- Claims management
- Digital innovation
- Data science
- Asset & liability management
- Capital allocation

Strategy

Our strategy focuses on the things that really matter and puts the customer at the heart of what we do:

- True Customer Composite
- Digital First
- Not Everywhere

... through our products, services and markets ...

Life insurance

Retirement income, savings and pensions

General insurance

Home, motor, travel and commercial

Health and protection

Private medical, life, critical illness and income protection

Asset management

Investing for external clients and investing for Aviva

... where premiums and cash are reinvested ...

Customers pay insurance premiums which we use to pay claims. Our scale enables us to pool the risks. We maintain capital strength so we can be there for our customers in the future.

Customers invest their savings with us. We manage these investments to provide them with an income for a more secure future.

We also invest the insurance premiums we receive to generate income to meet our obligations to customers and to generate value for shareholders.

Enabling customers to stay with us for the long term is important to the future success of our business.

... creating sustainable value for ...

Customers benefit from a range of products to meet their needs, with easy access when and how they want it.

We create value for **shareholders** by using our profit to reinvest and grow the business and pay out dividends.

Our aim is for our **people** to achieve their potential within a diverse, collaborative and customer-focused organisation.

We play a significant role in our **communities**, including as a major employer and a long-term responsible investor.

£32.9 billion

Paid out in benefits and claims to our customers in 2018

30.0 pence

Total dividend up 9%

76%

Increased our employee engagement score by one percentage point

Over 3,000

Community projects supported in 2018, helping over 1.5 million people

Read about our business at www.aviva.com/about-us/our-markets

[Our strategy](#)

Our strategy

Since 2014, we have defined our strategy in three key areas:

- True Customer Composite
- Digital First
- Not Everywhere

Following the appointment of our new Group CEO, Maurice Tulloch, on 4 March 2019, he will undertake a review of the Group's strategic priorities. We will update the market on our future strategic priorities later in 2019. The following section takes a look at developments in 2018 across the key areas of our existing strategy.

True Customer Composite

We are a True Customer Composite: multi-channel and multi-product. Our customers are at the core of what we do, and drive all our thinking. We believe in delivering what our customers truly need in a dynamic and ever-changing world.

We help protect what matters the most to our customers through life, general and health insurance products while helping people save for their future through our savings and asset management offerings.

Why it's important

Customers often find themselves dealing with multiple insurers. This makes things complicated, adding to the time they have to spend arranging for their needs rather than enjoying the things that matter most in life.

True Customer Composite means that we can support the well-being of our customers in many ways. We bring simplicity. We add value. We can both protect our customers and help them save for their futures. We can also reward our customers for their loyalty, offering multi-product discounts.

True Customer Composite gives us a real competitive advantage in a digital world. Our digital solutions, such as MyAviva, are simple and intuitive, allowing customers to access multiple products and discounts and supporting our partners and intermediaries in an evolving distribution landscape.

How we've progressed

We continue to expand our range of customer propositions to be a True Customer Composite across our markets, making it easy and more rewarding for customers to manage multiple products through Aviva.

Systems thinking

True Customer Composite is also about creating the right customer experiences across our business. Systems thinking is a global method for us to re-think and re-design customer journeys. Systems thinking brings together colleagues throughout the organisation to help solve problems and make it easier for customers to interact with us.

UK Workplace

We continue to improve our offerings in the UK where we offer corporate clients pensions, protection, bulk purchase annuities, as well as health and general insurance.

With financial and health wellbeing of employees an increasingly important area for employers, we have continued to increase our capability to help our customers through the workplace. For

example, we have further developed our Aviva Wellbeing proposition, including the launch in 2018 of the Digital GP app. This offers a range of services such as digital consultations and repeat prescriptions. By offering this support we are becoming increasingly engaged with employers and their employees.

Ireland

In Ireland, we completed the acquisition of Friends First where the integration is progressing ahead of schedule. This acquisition strengthens our life insurance capability and extends our range of investment products, enhancing our position as a True Customer Composite in Ireland.

AvivaPlus

In December 2018, we announced we were launching AvivaPlus, an industry-first, subscription-style insurance for our UK customers. AvivaPlus is the way insurance should be.

We are breaking free of insurance industry norms, rewarding our customers for their loyalty. We are putting the customer in control with monthly payments which can be cancelled anytime, allowing customers to get the cover they need when they need it. AvivaPlus customers pay the same or less at renewal than if they were new to AvivaPlus.

Offered initially on certain general insurance products, we aim to build this into our broader True Customer Composite offering. AvivaPlus is a significant shift for insurance, creating value, and driving engagement.

AvivaPlus creates one of our simplest customer journeys yet. We believe that simple propositions, designed with customer ease at their heart, will increase customers' loyalty and advocacy.

Digital First

In an increasingly digital, data-driven world, our customers' needs are changing. From individual customers, to intermediary partners and large corporate clients, our customers want innovative products and services, which are easy-to-use and provide a positive customer experience. Digital First is our strategic approach to creating a group which can respond to those demands.

Why it's important

Digital First is about making sure Aviva is an, efficient insurance company which delivers attractive products and services for our customers. The launch of AvivaPlus at the end of the year is an example of our commitment to lead the way to meet this challenge.

We are in an age of rapid increases in data production and availability. The ability to assess and use this data appropriately and responsibly is a key competitive advantage today, allowing us to design, create and underwrite the best possible products for our customers. Investing in our data science capabilities at Aviva Quantum ensures that we can stay ahead of the game.

How we've progressed

In 2018, our focus on being Digital First moved from a period of significant innovation and development into launch and increasing scale, providing our customers with the right set of products through an enhanced multi-channel experience.

Our strategy > [Continued](#)

MyAviva

Our focus on scaling digital growth in the year was best demonstrated by MyAviva in the UK, which achieved growth in active registrations to 4.2 million, representing more than a quarter of all our UK customers. MyAviva lets customers deal with us in a direct, efficient way across a wide range of product needs from general insurance, health insurance, life insurance, pensions to long-term savings and helped drive strong growth in digital interactions.

Quantum

Digital First is not only about engaging with customers online but about harnessing the benefits of data. Aviva Quantum is our internal data science team. They work to improve our understanding of risks, allow more accurate pricing, increase fraud prevention and personalise MyAviva quotes. Quantum is at the heart of developing Ask-it-Never, our ambition to make insurance simpler and easier for customers by asking fewer questions when they buy a policy.

Blue

2018 was an intense period for launch activity of disruptive, new services. Our new joint venture in Hong Kong, with our partners Hillhouse and Tencent, launched in September with a simple proposition, designed to disrupt traditionally expensive distribution through intermediaries. Blue is the first digital life insurer in Hong Kong and offers three simple, flexible and fully online life protection products.

Not Everywhere

Not Everywhere means that we focus our capital where we can achieve the greatest return. We do not aspire to offer everything, to everyone. We are focused in the places where we will win. Having largely reshaped the Group in recent years, we are now focused on our major markets and strategic investments.

Why it's important

We aspire to be the best at what we do in all our markets. This means being focused and committed to the right markets and the right products.

How we've progressed

In 2018, we completed the latest restructuring phase of our businesses.

As well as the completion of the acquisition of Friends First in Ireland and the launch of our Blue joint venture (see above), we completed the exit of our three remaining businesses in Spain, Caja Murcia Vida, Caja Granada Vida and Pelayo Vida, ending our involvement here. In Italy, we completed the sale of our joint venture, Avipop Assicurazioni S.p.A., and its wholly owned subsidiary Avipop Vita S.p.A. We completed our exit from Taiwan, following the sale of our joint venture First Aviva Life. Lastly, Aviva Investors sold a Real Estate Multi-Manager business which was strategically non-core.

Major markets and strategic investments

Our major markets and strategic investments categorisation shows how Aviva's markets and business lines contribute to our overall portfolio, both now and in the future.

Major markets: solid growth, sustainable cash

We are focused on eight attractive, growing markets where we are, or have the potential to be the best in class. Our major markets are:

- UK – number one composite insurer providing a core growth engine and high levels of sustainable cash flow
- France – a cash generator underpinned by strong distribution
- Canada – leading general insurance franchise with attractive returns over the long term
- Poland – high return on equity (ROE) business with strong distribution and digital credentials
- Italy – composite player in large European insurance market
- Ireland – a leading brand with an improved composite model
- Singapore – composite player with distribution through growing financial advisory channel
- Aviva Investors – global asset manager with expertise and solutions in real assets, multi-assets, equity and fixed income

Strategic investments: future, fast growth

We have made a number of strategic investments that will accelerate growth and provide increased value over the long term. These investments are:

- Digital – developing intellectual property (IP) to be rolled out across our markets
- China – delivering growth in sales and adjusted operating profit¹ in one of the world's largest insurance markets
- Hong Kong – Blue, our joint venture with Tencent and Hillhouse focused on digital disruption
- Turkey – leading position in the life and pensions market and exposure to a large, young and growing population
- Indonesia – bancassurance joint venture in an under-penetrated, high growth emerging market
- India – continuing to assess our options
- Vietnam – leading business in one of the fastest growing Asian economies
- Global Corporate Solutions (GCS) – selective expansion provides a natural extension to our existing strength in retail and commercial lines

Read about our businesses at www.aviva.com/investors/our-strategy

¹ Adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to note B in the 'Accounting Policies' section and to the 'Other Information' section within the Annual report and accounts for further information.

[Our people](#)

Our people

We have a clear purpose to give our customers the confidence and control to be ready for life's opportunities and challenges. This commitment to customers, high levels of people engagement and skills, and Aviva's values helps contribute to our strong financial performance.

The focus for 2018 has been on our culture and ensuring we are an inclusive workforce who put the customer first.

We employ 31,703 people globally and continue to support the regional economies in our home market the UK, where we employ more than 15,000 people.

Our strategy

Our global people strategy sets out how we will accelerate our performance. We will:

- Focus on our customers by connecting the day-to-day activities of our people with our purpose
- Give our people the freedom to act in line with our values
- Make leadership a way of life so all our people contribute to delivering our strategy and think independently. We want leaders who are ambitious and achieve results in everything they do
- Create an inclusive and diverse environment so that everyone can be themselves
- Actively invest in the skills, mind-sets and future capabilities we need to win in a digital age

Our values

Our values guide everything we do and the decisions we take:

Care More

We start with the customer and prioritise delivering a great outcome for them. We do the right thing, making sure we and those around us are acting with positive intent. We don't shrink from the tough conversations. We're in it together.

Kill Complexity

We can list our priorities on one hand, picking a few things to do brilliantly. We make the call with the right information. We join forces and build it once.

Never Rest

We fail fast and learn fast, testing and learning at pace. We embrace digital. We are dissatisfied with the way things are done now. We get it done at pace.

Create Legacy

We invest with courage, taking smart risks and making good decisions to ensure we allocate our resources where they can do most. We think like an owner, taking responsibility. We go for more than quick wins. We take the long view.

Developing our people

Developing our people remains core to the work we do. In 2018, we continued to implement our three-year talent programme by:

- Our flagship leadership programme has been extended to all leaders in Aviva. 1,500 leaders have started Leading For Growth (of which 900 have completed the programme so far) with a further 500 scheduled to commence in Q1 2019. The programme is expected to roll out to the remaining 2,000 leaders during 2019. We believe this investment has contributed to our strong engagement scores and our improvement in the healthiness of

our culture. We continue to invest in talent throughout the business and this year launched a programme to spot and develop our new generation of leaders much earlier in their career.

- 'Grow', our global digital learning portal, has 100% adoption in all our key markets. We continue to improve our digital based learning with a plan in place to deliver innovative bite-sized content, mobile learning and curated external thought leadership. Our online Leadership hub has received over 245,000 views. We are co-creating an online coaching tool with our Digital Garage partners at Founders Factory. Quantum University, our global data science learning practice, is now established and is building capability with c.700 practitioners globally.
- Over 120 women in Aviva have completed our 'women in leadership' programme. Since the programme launched we have seen more women take on broader roles and being promoted. This is one of the initiatives that will help us close the gender pay gap.
- We continue to have a successful year with our Global Graduate scheme with 36 people starting in September 2018, including 17 females.
- In 2018, we adapted our approach to Performance Management, especially in our customer-facing roles. A bigger emphasis was placed on coaching and in-the-moment recognition, either by immediate management or the Group Executive, removing the need for unnecessary calibration of our people.

Engaging our people

In 2018 our global Voice of Aviva survey focused on key areas of insight to drive growth: engagement, culture and leadership. Employee engagement in Aviva remains strong and steady with continued notable improvements in our UK and France markets, as well as across our finance function globally, although slightly down in Canada and Ireland following integration and restructuring. Overall, however, employee engagement is consistent with 2017 at 76% globally.

In the last year, colleagues have seen significant positive shifts in the culture at Aviva with a 12-point increase in the headline culture measure reflecting this. Colleagues are much more likely to say that people around them are moving quickly to put good ideas into action, have the freedom to make decisions in their jobs and are comfortable taking appropriate risks/trying new ideas. The focus in 2019 will be to continue to embed a culture of greater customer focus, innovation and simplicity.

Feedback on people leaders living up to Aviva's 'Leadership Expectations' is mostly very positive. These are the behaviours we expect all leaders to demonstrate, with over 1,000 leaders receiving a rating of over 80% from their teams on related metrics. Leaders rate most positively on metrics related to taking action to remove barriers to their teams doing their job and encouraging them to think and make decisions from the customer's point of view. The data also gives us clear areas to focus on. Developing great leadership and improving engagement with our strategy continue to be priorities for 2019. We are also working on fostering more of a listening culture characterised by open and honest conversations with front line teams.

At Aviva we have a positive and constructive relationship with the trade union Unite as well as a fully elected all-employee representative body (Your Forum). Within Aviva we take our responsibility to consult very seriously. The existence of Your Forum within Aviva is a key way of recognising that we all have a part to play in contributing to the debate on issues and opportunities impacting on our people and our organisation.

The representative bodies meet regularly with the Members of the Group Executive Committee (GEC) throughout the year as well as

the Chair of the Remuneration Committee. We believe that by doing so we encourage a culture of trust, and open and honest communication that will help us ensure that our organisation is a better place to be. In 2018, we cemented our relationship with Unite the Union by signing a Learning Agreement. This is a collaborative approach to the ongoing development of our people and jointly encourages employees of all ages and genders to seek out opportunities through our Apprenticeship Levy contribution. In addition, we also launched a new Conflict Resolution and Mediation approach as part of our cultural transformation to move away from an adversarial approach to fostering greater dialogue amongst our people.

We continue to provide an employee share scheme and all employees have the opportunity to engage with senior leaders through weekly #Uncut (a 30 minute no holds barred interview with senior leaders) and our live results presentations. This ensures everyone at Aviva is aware of significant changes in the business as well as financial and economic factors affecting the business.

Inclusive diversity

Inclusive diversity is key to Aviva being a sustainable, successful business. An inclusive culture ensures employees are happier, act as themselves and work towards achieving their and the organisation's goals. Aviva's employees need to reflect our customer base and we continue to make sure all our customers are represented inside the organisation.

At the end of 2018, we exceeded our target of achieving 30% female leaders (leaders are the top 1,300 employees) by 2020; we reached 31% across all markets by the end of 2018. This is being achieved through targeted female development programmes, diverse shortlists and a leadership team committed to change. We are also committed to improving ethnic diversity within our leadership population.

In November, we celebrated the first anniversary of our equal parental leave policy. This policy has seen us as a first-mover in the majority of our markets, with the result that our people can see our commitment to them outside, as well as inside the workplace.

Our drive to have an inclusive culture comes through our employee communities which were launched across all markets in 2018. There are six communities covering: race and religion, gender, sexuality, caring responsibilities, age, and mental and physical health. In the first year over 5,000 employees have joined these communities. They act as a lobby group and conscience to the organisation and are actively sponsored by members of the Group Executive. Some of the notable contributions from the communities have been the Workplace Adjustment Passport (an individual record of any adjustments an employee requires to their working arrangements, for example accessibility or caring commitments), Black History month events and a part-time transition to retirement scheme in Canada.

Health and wellbeing

We remain focused on our employee health and wellbeing as a key driver to our success and growth. 2018 has been a year of embedding for our Wellbeing@Aviva strategy, and continues to deliver under our four areas – mental, physical and financial wellbeing and community connectivity. All the activities we launched in 2017 continued in 2018, but some specific highlights include:

Mental wellbeing

- 70% of our people leaders have now received mental health training. As a result, over 90% of leaders feel that they are

comfortable having conversations about mental health with their team/peers and managers, know about and are comfortable signposting colleagues to the resources available to them

- 4,000 colleagues have taken advantage of the free access to Headspace (a global meditation app) offered, collectively completing over 66,000 sessions since launch

Physical wellbeing

- 8% of colleagues have taken advantage of our discounted fitness proposition which launched in 2018, and they've certainly been active, clocking up over 31,000 gym visits, and the equivalent of 970 days worth of exercise!
- 21% of colleagues use our digital health checks each time they visit the office, with support then offered on an individual basis for issues identified by the health checks

Financial wellbeing

- After successful pilot seminars for employees (Mid-Life MOT and My Retirement, My Way) we will be rolling these out more widely in 2019
- We have provided access to Aviva Financial Advice for colleagues during working hours for an initial, or more detailed discussion, to help with their personal financial planning

Our plans for 2019

In 2019, the People function's focus will be around managing the fundamentals of our business and enabling growth to ensure Aviva and its people are best set to deliver the future strategy.

We are still on a journey to make Aviva a company that puts the customers at the heart of everything we do and our focus will be on ensuring our people can deliver in an innovative and simple way.

In 2019 we will continue to focus on developing an inclusive workforce which is fit for the future.

At 31 December 2018, we had the following gender split:

Board membership

Male

8

Female

3

Senior management

Male

938

Female

423

Aviva Group employees

Male

15,575

Female

16,128

The average number of employees during 2018 was 31,232.

Read more about our approach to responsible and sustainable business in the 'Corporate Responsibility' section of this report and our people strategy at www.aviva.com/about-us/our-people

[Chief Financial Officer's review](#)

Chief Financial Officer's review

Key financial metrics

A summary of the financial metrics used to measure our performance, including key performance indicators and alternative performance measures (APMs) where appropriate, is shown below. Further guidance in respect of the APMs used by the Group is included in the 'Other information' section of the Annual report and accounts.

	2018 £m	2017 £m	Sterling Change	Sterling% change
Group adjusted operating profit ¹	3,116	3,068	48	2%
Operating earnings per share ^{2,3}	58.4p	54.8p	3.6p	7%
Profit before tax attributable to shareholders' profit	2,129	2,003	126	6%
Cash remittances ²	3,137	2,398	739	31%
Estimated Solvency II shareholder cover ratio ^{2,4}	204%	198%	—	6.0pp
Value of new business on an adjusted Solvency II basis ²	1,202	1,243	(41)	(3)%
Combined operating ratio ²	96.6%	96.6%	—	—

Overview

In 2018, Aviva delivered growth while investing to improve the fundamentals of the business and maintaining a prudent approach to pricing and risk management.

Group adjusted operating profit¹ increased 2% to £3,116 million (2017: £3,068 million) while operating earnings per share^{2,3} rose 7% to 58.4 pence (2017: 54.8 pence). IFRS profit after tax was £1,687 million (2017: £1,646 million), leading to basic earnings per share of 38.2 pence (2017: 35.0 pence). Our operating results continue to benefit from broad based growth from our major markets together with releases of longevity provisions in our UK annuity portfolio. However, as in previous years, we have used the additional profitability provided by longevity releases to accelerate investment in digital, IT and finance change initiatives and to strengthen provisions in areas related to past practices.

In late 2018, the Civil Liability Bill, which determines how personal injury compensation awards are set in the UK, received Royal Assent. While confirmation of the new "Ogden" rate will be provided in 2019, following passage of the legislation we have revised the discount rate used in determining our personal injury claims reserves in the UK to 0%, from -0.75% previously, giving rise to non-operating profit of £190 million. Offsetting this are adverse investment variances due to widening sovereign and corporate credit spreads and a mark-to-market impact from our hedging programme, which protects Solvency II capital⁴. Despite heightened investment market volatility in late 2018, investment variances were broadly flat in the second half of the year despite an increase in the Brexit related property allowance to c.£400 million (2017: c.£300 million) in addition to other customary reserves.

During 2018, we repaid £0.9 billion of subordinated debt and completed a £0.6 billion share repurchase programme, leading to the cancellation of approximately 3% of our shares in issue. Despite this £1.5 billion of capital deployment, our solvency capital surplus⁴ remained robust at £12.0 billion (2017: £12.2 billion) and Solvency II shareholder cover ratio^{2,4} increased to 204% (2017: 198%).

As we embark on the next phase under a new Chief Executive, we do so from strong foundations, with businesses that are well established in their respective markets, a capital position that provides security for today and flexibility for the future and a well funded, sustainable dividend. However, there are opportunities to reignite the self-help agenda, focusing on cost efficiency, business complexity and prioritising further reduction in debt leverage.

United Kingdom

Aviva is the UK's largest insurer and is unique in operating at scale across life insurance, savings, general insurance, health insurance and retirement markets. In 2018, adjusted operating profit¹ from our UK Insurance businesses increased 7% to £2,324 million (2017: £2,164 million). The UK Insurance result continued to benefit from elevated levels of reserve releases relating to the slowing rate of improvement in life expectancy in our annuity portfolio and this is reflected in a higher contribution from "other". Excluding the contribution from "other", our five main operating segments in the UK delivered aggregate adjusted operating profit¹ of £1,974 million (2017: £1,904 million), an increase of 4%.

Annuity and equity release provides significant long-term growth opportunities as companies look to transfer their defined benefit pension obligations to the insurance sector and individuals seek to secure income and unlock equity in their retirement. In 2018, annuity and equity release sales rose 12% to £4.8 billion (2017: £4.3 billion) due to higher volumes in bulk purchase annuities. The increase in sales helped to deliver a 7% increase in adjusted operating profit¹ to £779 million (2017: £725 million). The result benefitted from favourable experience variances relating to longevity trends though this was offset by lower income from asset mix optimisation. While we have increased our annuity and equity release sales volumes in 2018, we have been selective in expanding our appetite and reflected the uncertain political and economic backdrop in our investment portfolio. We will maintain a prudent approach in 2019.

In long-term savings, adjusted operating profit¹ rose 7% to £198 million (2017: £185 million). Net fund inflows² were £5.0 billion (2017: £5.6 billion) equating to 4.2% of opening assets under administration². Having integrated digital features into our workplace pension propositions, we increased new scheme wins with large corporates and delivered higher net fund flows². This was offset by lower net fund flows² into the adviser platform, as migration to a new IT service provider caused disruption for both IFAs and customers. Weak investment markets towards the end of 2018 constrained growth in assets under administration², which ended the year at £116 billion (2017: £118 billion). As fee income is linked to assets under administration², this may weigh on adjusted operating profit¹ growth in 2019. Nonetheless, we see compelling long-term growth opportunities from rising participation and higher contribution rates in workplace savings.

1 Group adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to note B in the 'Accounting Policies' section, note 5 'Segmental Information' and 'Other Information' within the Annual report and accounts for further information.

2 This is an Alternative Performance Measure (APM) which provides useful information to supplement an understanding of our financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

3 This measure is derived from the Group adjusted operating profit APM. Further details of this measure are included in the "Other information" section of the Annual report and accounts.

4 The estimated Solvency II position represents the shareholder view. Please refer to note 57 and the 'Other information' section of the Annual report and accounts for more information.

In protection, we adapted to changing market conditions, resulting in adjusted operating profit¹ remaining stable at £226 million (2017: £227 million). Results from group protection improved in 2018 following actions taken to address adverse claims experience in 2017. This offset weaker results in individual protection, where new business volumes fell 8% in response to heightened competition while margins were compressed by higher reinsurance costs. We will continue to manage our protection business with a focus on maximising profit over the cycle rather than volume.

Aviva's UK general insurance business maintained its track record of delivering consistent, attractive underwriting results in 2018. The combined operating ratio² was 93.8% (2017: 93.9%) as higher levels of prior year reserve releases offset an increase in weather related claims. Net written premiums rose 3% to £4,193 million (2017: £4,078 million) due to progress in Global Corporate and Specialty (GCS) and Small and Medium Sized Enterprise (SME) markets. The underwriting result rose 3% to £253 million (2017: £246 million), which in turn helped to underpin a 4% increase in adjusted operating profit¹ to £415 million (2017: £400 million).

Our legacy portfolio performed in line with expectations in 2018, with adjusted operating profit¹ declining 4% to £318 million (2017: £331 million). The UK with-profits portfolio, which makes a significant contribution to the legacy performance, saw total assets decline to £48.9 billion (2017: £58.2 billion) reflecting the weak investment market environment.

Each year, our UK results include the impact of assumption changes, adjustments to provisions and management actions to increase or accelerate value emergence from our capital-intensive businesses. We ordinarily expect this to provide between £150 million and £200 million per annum benefit to our results. In 2018, the contribution remained above this range at £350 million (2017: £260 million). The largest driver of this result was the release of longevity provisions totalling £728 million (2017: £710 million) due to changes in life expectancy trends. This was partially offset by increased provisions and remediation costs, including those pertaining to historical advised sales by Friends Provident, with over 90% of cases identified being pre-2002, where we increased the amount set aside for customer redress to £250 million (2017: £75 million).

International

Aviva's International markets comprise Europe, where we have focused multi-line franchises, and Canada, where we are the second largest general insurer by premiums written. Excluding the impact of businesses divested in 2017 and 2018, adjusted operating profit¹ from our International businesses increased 9% to £1,080 million (2017: £990 million).

In France, we maintained our operating momentum in 2018, delivering higher sales, improved product mix and better efficiency. Adjusted operating profit¹ in France was £546 million (2017: £507 million), up 7% in local currency terms. In our life insurance business, increased demand for savings products helped to deliver 6% growth in new business volumes to £4.3 billion (2017: £4.0 billion). With higher average asset balances supporting fee revenues and operating expense² growth of just 1%, our French life insurance business grew adjusted operating profit¹ 7% to £436 million (2017: £403 million). In general insurance, adjusted operating profit¹ rose 5% to £110 million (2017: £104 million). Net written premiums were £1,118 million (2017: £1,053 million) with growth

mainly derived from commercial lines. The combined operating ratio² was maintained at 94.5% (2017: 94.5%) despite higher claims from weather and natural catastrophe events. Our French leadership team have begun to align our distribution channels under the Aviva brand and we expect to increase investment in brand, distribution and digitisation in 2019.

In Poland, Aviva responded to subdued trends in the life insurance market by implementing a targeted product strategy with our distribution partners, delivering record levels of customer retention and managing expenses tightly. As a result, despite lower industry sales, our life insurance business increased new business volumes by 3% and adjusted operating profit¹ rose 8% to £170 million. The higher life insurance result helped propel our total adjusted operating profit¹ in Poland to £190 million (2017: £177 million), an increase of 6% in local currency terms. In general insurance, adjusted operating profit¹ was £20 million (2017: £21 million) due to lower profitability in motor insurance. Our general insurance business lacks scale, though we are targeting growth through multi-cover policies, encouraging digital engagement, utilising our existing distribution scale in life insurance and developing the price comparison website market.

In Canada, the focus of our team in 2018 was on setting the business on the path to recovery following the challenges experienced in 2017, where results were adversely affected by heightened claims inflation in motor insurance. We have taken a range of actions including increases in premium rates, cancellation of some broker relationships and adjustments to underwriting appetite. While these actions have begun to yield results, adjusted operating profit¹ in Canada was flat at £46 million (2017: £46 million). Elevated weather and large loss experience, persistent challenges in motor insurance and costs relating to the completion of the RBC Insurance integration kept the combined operating ratio² elevated at 102.4% (2017: 102.2%), despite an improvement in prior year development.

Aviva recently received regulatory approval for further increases in premium rates in Ontario motor insurance which will move us toward rate adequacy. The regulatory approved premium rate increase of 8.6% in the Aviva portfolio and 16.8% in the RBC portfolio will be implemented from the first quarter of 2019 and should begin to benefit results in the latter part of this year and in 2020. In addition, we will continue to work with provincial governments and regulators to drive much needed reform in the Canadian insurance market. In summary, we expect our actions to deliver progress in our financial results in 2019 and we remain confident that we can achieve our sub-96% combined operating ratio² goal in 2020.

Aviva made further strategic and financial progress in Italy in 2018. Our focus on diversifying distribution and providing customers with innovative products has delivered higher sales, positive net fund flows² and growth in adjusted operating profit¹. On a like-for-like basis (excluding the divested Avipop business), adjusted operating profit¹ increased 16% to £188 million (2017: £162 million). In life insurance, sales rose 37% in local currency terms to £6.3 billion (2017: £4.5 billion). Hybrid products, which provide customers a combination of with-profit, unit linked and protection coverage, achieved growth of 161% and contributed 44% of our total life sales (2017: 23%). We also expanded our distribution capability; in 2018, non-bank channels accounted for greater than 40% of life insurance sales.

1 Group adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to note B in the 'Accounting Policies' section, note 5 'Segmental Information' and 'Other Information' within the Annual report and accounts for further information.

2 This is an Alternative Performance Measure (APM) which provides useful information to supplement an understanding of our financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

The sustained strength in sales has taken our new business share of the Italian life insurance market to approximately 6% and generated significant positive net fund flows². As a result, life insurance adjusted operating profit¹ rose 14% to £156 million (2017: £136 million). In general insurance, Aviva has a niche position in the Italian market. Net written premiums in this business fell 7% to £317 million (2017: £337 million) as we took underwriting actions on the motor insurance portfolio. These actions contributed to improved underwriting margins, which helped lift adjusted operating profit¹ to £32 million (2017: £26 million).

In Ireland, adjusted operating profit¹ was £100 million (2017: £86 million) and we extended our sponsorship of the Aviva Stadium, a key element of our Group brand strategy. The main driver of growth in adjusted operating profit¹ was the Friends First business, which was acquired by Aviva on 1 June 2018. Benefits from the integration of Friends First supported higher adjusted operating profit¹ in life insurance, compensating for lower sales in annuities. In general insurance, Aviva has continued to focus on protecting profitability as the pricing cycle has begun to soften. Net written premium fell 2% to £430 million (2017: £436 million) though underwriting margins remained attractive, with a combined operating ratio² of 91.5% (2017: 91.4%). As a result, general insurance adjusted operating profit¹ rose slightly to £56 million (2017: £53 million). During 2018, we also completed important structural changes in our Irish business, with the establishment of a locally incorporated legal entity. This was an important component of our Brexit preparations.

Aviva Investors

In a challenging year for the fund management industry, Aviva Investors top-line growth slowed, with revenue up 4% to £597 million (2017: £577 million). However, we chose to continue to invest in building a more valuable diversified long-term business, particularly in our Equities and Real Assets capabilities. This continued investment, together with the absorption of MiFID II costs, which we did not pass onto clients, resulted in adjusted operating profit¹ of £150 million (2017: £168 million). We also realised a non-operating profit of £27 million on the sale of a part of our real estate business. Over the year, assets under management² declined due to the aforementioned business disposal, adverse market movements and expected net outflows on Aviva's legacy life insurance books. The AIMS range of funds saw assets reduce to £10.3 billion (2017: £12.6 billion) as difficult market conditions weighed on performance.

Singapore

In Singapore, we continue to grow our distribution network, including Aviva Financial Advisors with 816 advisers (2017: 673) and Professional Investment Advisory Services Pte Ltd, with 724 advisers (2017: 593). As a result, we have maintained positive momentum in life insurance. New business volumes increased 11% to £1,279 million (2017: £1,164 million) and adjusted operating profit¹ from our life insurance operations grew 21% in local currency terms to £141 million (2017: £118 million). We believe the financial advisory model provides enhanced flexibility and choice for both advisers and customers and we will continue to invest in its development in 2019. In general insurance and health, adjusted operating loss¹ widened to £16 million (2017: £8 million) due to adverse claims experience in our health insurance portfolio. We are taking steps to improve the health insurance portfolio and this will continue in 2019.

Strategic investments

Aviva's strategic investments include our Digital operations together with our joint venture businesses in China, Hong Kong, India,

Turkey, Vietnam and Indonesia. In 2018, the aggregate adjusted operating loss¹ from these businesses widened to £142 million (2017: £85 million). The primary driver of this was our digital business in the UK, where we invested further in digital innovation, and customer proposition development and engagement. This has given rise to a sharp uplift in customer activity levels; UK MyAviva active customer registrations have risen 48% and we are seeing higher volumes of online customer traffic. However, this did not translate through to higher levels of profitability reflecting the soft market conditions in 2018. Excluding Digital, results from our Strategic Investment markets improved. In China and Turkey, we delivered growth in adjusted operating profit¹ in local currency terms while losses narrowed in our less mature businesses in South East Asia.

Capital and cash

At the end of 2018, our Solvency II shareholder cover ratio^{2,3} was 204% (2017: 198%). The increase in the ratio was achieved despite significant capital management actions undertaken during the year, with the £0.9 billion repayment of subordinated debt and £0.6 billion share repurchase equating to a 13 percentage point drag on the opening solvency position.

Operating capital generation² totalled £3.2 billion (2017: £2.6 billion). Underlying operating capital generation² was £1.5 billion (2017: £1.7 billion), the decline resulting from business disposals, higher capital strain from new business growth and increased business investment spend. Other operating capital generation² of £1.7 billion (2017: £0.9 billion) comprised UK longevity releases together with capital benefits from the inclusion of dynamic volatility adjustment in our Group Solvency II position and model changes in France, Poland and the UK.

Net cash remittances² increased to £3.1 billion (2017: £2.4 billion) on the back of a significant uplift in dividends from the UK Insurance business. Special remittances from UK Insurance were £1.25 billion (2017: £500 million) and comprised £500 million related to Friends Life integration synergies and an additional £750 million that was made possible by the strength of our local entity solvency position.

At our Capital Markets Day in November 2017, we upgraded our target for cumulative cash remittances² over the three year period ending in December 2018 to £8 billion (from £7 billion previously). We fell slightly short of the upgraded target, achieving £7.9 billion of cumulative cash flows to Group centre from remittances and divestiture proceeds. This reflects the delay in completing the sale of Friends Provident International and our decision to retain the £0.2 billion of proceeds from the sale of Avipop in our Italian subsidiary to support capital given growth in the business and recent trends in Italian Government bond spreads.

In conjunction with the higher remittances, excess centre cash flow² in 2018 was £2,437 million (2017: £1,656 million). Even after adjusting for special remittances, recurring excess centre cash flow² was sufficient to fund Aviva's ordinary dividend. At the end of February 2019, Group centre liquidity was £1.6 billion (2017: £2.0 billion). Our intention is to maintain the Group centre liquidity balance in a range of £1 billion to £2 billion over time. Additional cash may also be set aside at Group centre for the purpose of defeasing subordinated debt maturities in 2020 and beyond. In 2018, we raised €750 million of senior debt with maturity in 2027 and a coupon of 1.875%. This was used to redeem €350 million of maturing senior debt and reduce commercial paper balances and was therefore neutral to our net debt position, while extending our liability profile.

1 Group adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to note B in the 'Accounting Policies' section, note 5 'Segmental Information' and 'Other Information' within the Annual report and accounts for further information.

2 This is an Alternative Performance Measure (APM) which provides useful information to supplement an understanding of our financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

3 The estimated Solvency II position represents the shareholder view. Please refer to note 57 and the 'Other information' section of the Annual report and accounts for more information.

In November 2017, we outlined an ambition to deploy £3 billion of cash by the end of 2019. In 2018, our deployment initiatives totalled £1.7 billion, comprising £0.9 billion of subordinated debt retirement, £0.6 billion of capital returned to shareholders via a share repurchase programme and £0.2 billion on M&A initiatives, the largest of which was the acquisition of Friends First in Ireland. Of the remaining £1.3 billion of cash we had anticipated deploying, we are extending the time-line beyond 2019 and will prioritise reinvestment in our existing operations and debt deleveraging. Based on our current outlook, there is less appetite for bolt-on acquisitions in 2019.

Between 2019 and 2022, Aviva has c£3.0 billion of maturing debt, of which we currently expect to repay without refinancing £1.5 billion. On a pro forma basis, this would reduce our outstanding debt balances by approximately 20%, reduce our ratio of debt to Solvency II own funds by 4 percentage points to 29%, and reduce our Solvency II shareholder cover ratio^{2,4} by 10 percentage points to 194%. We estimate this would give rise to cash interest expense savings of approximately £90 million per annum, improving Group adjusted operating profit¹, operating capital generation² and excess centre cash flow². We continue to manage the company consistent with double-A financial metrics.

We expect to fund the reduction of debt balances from internal sources, including regular cash remittances from our business units, special remittances associated with our capital structure optimisation initiatives and proceeds from divestiture activity.

Dividend

In light of our results and the strength of our financial position, we have increased our total dividend per share by 9% to 30.0 pence (2017: 27.4 pence). This is the fifth consecutive year of significant annual growth in the dividend, with the 2018 level representing double the level paid for 2013 (15.0 pence).

Having achieved our 50% dividend payout ratio target relative to operating EPS^{2,3} in 2017, this year we have increased the dividend payout ratio to 51.4%. Looking forward, the Board of Directors has decided to move from a policy targeting a pay-out ratio tied to operating EPS^{2,3} to a progressive dividend policy. This change will afford the new CEO greater flexibility to implement his strategic agenda while protecting the current dividend per share for our existing shareholders.

At Aviva, a "progressive" dividend policy means that, under ordinary circumstances, the Board of Directors would at least maintain the then-current annual ordinary dividend per share, while seeking to grow the dividend per share over time based on the Board of Directors' periodic assessment of the Group's financial performance and future outlook. In practice, this might result in a higher or lower dividend pay-out ratio relative to earnings, which could fluctuate,

while the dividend per share remains steady or grows under ordinary circumstances. Aviva's annual ordinary dividend per share has doubled from 2013 to 2018, and the Company expects that future percentage growth rates of the dividend per share will be more modest than those in the recent past.

Outlook

Given current uncertainties, including the unknown future impacts of Brexit on the economies of the United Kingdom and Europe, our near-term outlook entering 2019 is more muted than our outlook a year ago. While we achieved 7% operating EPS^{2,3} growth in each of the past two years, it will be difficult to sustain this momentum in 2019.

In terms of currently identifiable result drivers, we cite potential headwinds from weak investment markets in late 2018 on fee income in our asset gathering businesses including UK long-term savings, European life and Aviva Investors, and a possible increase in the blended tax rate due to changes in the business mix of Group adjusted operating profit¹. On the other side of the ledger, we expect results to benefit from improved profitability in Canada in addition to lower interest expense and a reduction in weighted average shares in issue following capital management initiatives undertaken in 2018. Our results will also depend on the degree of offset between benefits from changing longevity trends in the UK and costs associated with investment and change spend.

In conjunction with the appointment of a new Chief Executive, we are reallocating resources and making changes to our priorities. This process has begun, though it will receive further impetus now that the new Chief Executive has been appointed. Areas of focus include potential changes to our business model to drive further efficiency, opportunities to optimise our product and market portfolio and the prioritisation of debt deleveraging announced in today's results. The new Chief Executive will expand on our plans and outline refreshed targets in the near future.

In conclusion, we approach 2019 with strong fundamentals; our balance sheet is robust and resilient, our businesses are well positioned in their respective markets and overall performance has been steady. This provides a strong platform on which the incoming Chief Executive can build, with renewed focus on efficiency, complexity and customer to drive future performance.

Thomas D. Stoddard

Chief Financial Officer
6 March 2019

1 Group adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to note B in the 'Accounting Policies' section, note 5 'Segmental Information' and 'Other Information' within the Annual report and accounts for further information.

2 This is an Alternative Performance Measure (APM) which provides useful information to supplement an understanding of our financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

3 This measure is derived from the Group adjusted operating profit APM. Further details of this measure are included in the "Other information" section of the Annual report and accounts.

4 The estimated Solvency II position represents the shareholder view. Please refer to note 57 and the 'Other information' section of the Annual report and accounts for more information.

Market review

UK

Overview

Aviva is the UK's largest insurer with a 17%¹ share of the UK Life and savings market and a 10%² share of the UK General insurance and health market, with 15 million customers in the UK. As a 'multi-line' insurer we have a clear strategic advantage, providing individual and corporate customers with a wide range of insurance and savings products, from car, home and health insurance to pensions, investments and asset management. We have a strong core capability in managing existing books of business and have one of the largest customer bases in the UK life and pensions market.

We are here to help our customers, protect what's important to them and to help save for their long-term goals. Helping our customers provide for a more comfortable retirement and with a better understanding of the financial choices they face is a priority for us. We provide a secure income to 1.2 million customers in the form of an annuity, paying out over £2.6 billion each year. We are also a leading supplier¹ of equity release (lifetime mortgages), lending over £700 million in 2018, helping people to raise money to fund whatever matters most in life.

We focus on the customer, with market leading service at the heart of our business. We insure 2.5 million motor customers and 3.2 million home customers. Through the launch of AvivaPlus, an innovative general insurance proposition, customers can pick and choose the cover they need, with no interest or administration fees. The renewal price guarantee means we review each customer's price at renewal to make sure they pay no more than if they were new to AvivaPlus.

Over 5 million people rely on us to protect them and their families during some of the most difficult times in their lives, such as bereavement and serious illness. We are proud not only of the scale of the financial and wider support that our protection products provide, but the care with which claims are managed. We continue to win several awards recognising our achievements, including Best Protection Provider for the second consecutive year from Money Marketing and Best Individual Critical Illness Provider at both the Cover Excellence and Health Insurance awards.

In 2018 we published our first UK claims report, encouraging the industry to join us in publishing comprehensive information about how insurers manage customer claims, why some claims are declined and how consumers can do more themselves to understand whether the cover they have is what they need. In the UK, we paid out 96% of all claims received in 2017 and as high as 99% in motor and life insurance. That equated to £3.6 billion to help our customers across motor, home, travel, protection, health and commercial business insurance.

We are the largest UK corporate pensions provider¹, servicing over 3.8 million customers, including 22%¹ of the workplace pensions market. We are proud to receive external recognition³ for excellent service in the pensions marketplace. We offer pensions, protection, and bulk purchase annuity propositions to both large and small companies, as well as health and general insurance.

We also provide general insurance to a wide range of businesses, with over 650,000 policies in force. In addition to our well established Small and Medium Enterprise (SME) client base, our Global Corporate & Specialty (GCS) business is focused on building the right solutions for large corporate clients and their brokers, working together to provide a tailor-made package that meets their requirements in the UK and across the globe. In 2018 retention of our existing customer base was over 90% and we were successful in winning the multi-national business of large UK corporates. We continue to support clients in improving their risk management through our prevention agenda and our highly valued claims service.

Financial and health wellbeing is top of employer agendas and we continue to support them and their employees with further development of Aviva Wellbeing, a set of services aimed at helping employers build healthier, happier and more productive workforces. In 2018 we launched Aviva Digital GP, an innovative proposition offering around the clock access to GP video consultations and chat features, pharmacy services and repeat NHS prescriptions.

We have 4.2 million customers in the UK actively registered on MyAviva, allowing them to manage their policies online, an increase of 48% on 2017. We are accessible to new and existing personal and corporate customers however they want to engage with us. We have an unparalleled distribution network, with a growing digital direct offering for sales and service, strong relationships with independent financial advisers, brokers, employee benefit consultants, banks and other partners such as estate agencies.

We continue to win many awards, including 'General Insurer of the Year' from Insurance Times for the fifth year running and Insurance Post for the second year, and 'Health Insurer of the Year' at the Health Insurance Awards for the ninth year running. We also won Moneywise's 'Best Pensions Education Initiative', an award to highlight the efforts being made by financial providers to educate their customers, and the public, about pensions and retirement planning.

Financial performance

	2018 £m	2017 £m
Adjusted operating profit^{4,6}		
Life	1,871	1,728
General Insurance	415	411
Health	38	36
	2,324	2,175
Cash remitted to Group^{5,7,8}		
Life	2,170	1,366
General Insurance and Health	379	434
	2,549	1,800
Expenses		
Operating expenses ⁵	1,613	1,493
Integration and restructuring costs	—	76
	1,613	1,569
New business		
Present value of new business premiums (PVNBP) ⁵	23,946	23,764
Value of new business on an adjusted Solvency II basis (VNB) ⁵	481	527
General Insurance		
Combined operating ratio (COR) ⁵	93.8%	93.9%
Net written premiums (NWP)	4,193	4,078

1 Association of British Insurers (ABI) 12 months to end Q318.

2 GlobalData plc online database.

3 Aviva Corporate Operations were awarded the Thomson Online Benefits 5-star service rating in May 2018.

4 Adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to note B in the 'Accounting Policies' section, note 5 'Segmental Information' and 'Other Information' within the Annual report and accounts for further information.

5 This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

6 The amounts shown above in respect of adjusted operating profit do not reconcile to the corresponding amounts in note 5 'Segmental information' within the Annual report and accounts due to the inclusion of our Health business within UK General insurance.

7 2018 general insurance cash remittances include amounts of £331 million received from UK General Insurance in February 2019 in respect of 2018 activity.

8 Cash remitted to Group is managed at legal entity level. As Ireland constitutes a branch of the United Kingdom business, cash remittances from Ireland were not aligned to our management structure within Europe, but they were reported within United Kingdom.

Market review > [Continued](#)

Profit

UK Life adjusted operating profit^{1,7} increased by 8% to £1,871 million (2017: £1,728 million) due to further benefits from changes in longevity assumptions and the continued growth of long-term savings and bulk purchase annuities (BPA).

The UK's adjusted operating profit^{1,7} across new and existing business can be analysed by segment as shown below:

			2018			2017
	New business	Existing business	Total £m	New business	Existing business	Total £m
Adjusted operating profit^{1,7}						
Long-term savings ²	(96)	294	198	(74)	259	185
Annuities and equity release	363	416	779	335	390	725
Protection	91	135	226	130	97	227
Legacy ³	—	318	318	—	331	331
Other ⁴	—	350	350	—	260	260
Life	358	1,513	1,871	391	1,337	1,728
Underwriting result			253			246
Long-term investment return			161			163
Other ⁵			1			2
General Insurance			415			411
Health			38			36
Total adjusted operating profit^{1,7}			2,324			2,175

The increase in adjusted operating profit^{1,7} is offset by an adverse movement in investment variances and economic assumption changes leading to a reduction in profit before tax attributable to shareholders' profits⁷ of our life business of £1,399 million (2017: £1,619 million).

UK General Insurance adjusted operating profit^{1,7} was up 1% at £415 million (2017: £411 million), including a 3% increase in underwriting profit as the business has grown while maintaining a stable COR⁶.

UK Health adjusted operating profit^{1,7} increased by 6% to £38 million (2017: £36 million) due to improved underlying margins.

Long-term savings

Long-term savings adjusted operating profit^{1,7} increased by 7% to £198 million (2017: £185 million) with positive net fund inflows⁶ of £5.0 billion (2017: £5.6 billion) while maintaining a stable in-force profit margin. Average assets under management (AUM⁶) across the year grew to £118 billion (2017: £111 billion). However, weak investment markets towards the end of 2018 constrained growth in AUM⁶, which ended the year at £116 billion (2017: £118 billion). Along with growth in workplace pension net fund flows⁶, driven by new scheme wins with large corporates, we delivered continued positive platform net fund flows⁶ of £3.9 billion (2017: £6.2 billion) despite a difficult market environment and functionality problems impacting advisers and customers during the migration of the adviser platform to a new service provider. Platform assets under management⁶ grew by 12% in the year to £22.6 billion (2017: £20.2 billion). The increase in new business strain reflects our workplace pensions growth and the continued investment in the Aviva Financial Advisers network.

Annuities and Equity Release

Annuities and equity release adjusted operating profit¹ increased by 7% to £779 million (2017: £725 million). BPA trading drove a 12% increase in volumes to £4,784 million (2017: £4,287 million), including Aviva's largest BPA deal to date of £925 million with Marks and Spencer, leading to an 8% increase in new business profits to

£363 million (2017: £335 million). Existing business adjusted operating profit^{1,7} increased by £26 million to £416 million (2017: £390 million) due to favourable longevity experience partly offset by a reduction to £24 million (2017: £86 million) in the benefit from the optimisation of the asset mix by increasing the proportion of illiquid assets backing the in-force portfolio.

Protection

Protection adjusted operating profit^{1,7} remained stable at £226 million (2017: £227 million). The benefit of improved claims experience in Group Protection following actions taken to mitigate 2017 adverse experience was offset by an 8% reduction in new business volumes to £1,799 million PVNBP⁶ (2017: £1,964 million) and fall in new business profits in a competitive individual protection market including the impact of hardening reinsurance rates.

Legacy

Legacy contributed adjusted operating profit^{1,7} of £318 million (2017: £331 million). The expected reduction in AUM⁶ as policies mature was partly offset by favourable market movements in 2017 that drove higher opening 2018 AUM⁶. We continue to expect adjusted operating profit¹ from the legacy business to decline by approximately 10% per annum over the medium term.

Other

In 2018, the contribution from Other was £350 million. The largest driver of this result was the release of longevity provisions totalling £728 million due to changes in life expectancy trends⁸. This was partly offset by the recognition of an additional £175 million provision relating to potential redress for advised sales by Friends Provident (of which over 90% of cases relate to pre-2002, with the total provision recognised being £250 million) and a £119 million adverse impact in respect of the settlement of certain legacy reinsurance arrangements.

In 2017, Other of £260 million mainly related to the release of longevity assumptions totaling £710 million⁸. This was partly offset by the impact of recognition of a £75 million provision relating to potential redress for advised sales by Friends Provident, strengthening of maintenance expense reserves of £89 million, recognition of future costs reserves of £125 million and modelling impacts totalling £131 million.

General insurance

UK General Insurance adjusted operating profit^{1,7} was up 1% at £415 million (2017: £411 million).

The underwriting result increased 3% to £253 million (2017: £246 million), reflecting an improved underlying performance, as we maintained a disciplined approach to underwriting and distribution. The impact of less favourable weather compared to 2017, (although weather remained favourable to the long-term average), was offset by higher prior year reserve releases.

Long-term investment return (LTIR) declined by £2 million to £161 million (2017: £163 million), with the reduction in the internal loan return (net neutral to Group) broadly offset by the impact of an updated investment mix.

Adjusted operating profit^{1,7} is a key driver for the improvement in profit before tax attributable to shareholders' profits of £450 million (2017: £336 million), partially offset by increased adverse market movements.

1 Adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to note B in the 'Accounting Policies' section, note 5 'Segmental Information' and 'Other Information' within the Annual report and accounts for further information.

2 Includes pensions and the savings Platforms.

3 Legacy represents products no longer actively marketed, including With-Profits and Bonds.

4 Other Life represents changes in assumptions and modelling, non-recurring items, and non-product specific items.

5 Other General Insurance includes unwind of discount and pension scheme net finance costs.

6 This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

7 The amounts shown above in respect of adjusted operating profit and profit before tax attributable to shareholders' profits do not reconcile to the corresponding amounts in note 5 'Segmental information' within the Annual report and accounts due to reclassification of health business to general insurance.

8 Please refer to note 47 'Effect of changes in assumptions and estimates during the year' within the Annual report and accounts.

In December 2018, the Civil Liability Bill became an Act of Parliament, which includes a change in the way the discount rate used to calculate lump sum compensation in personal injury cases (the 'Ogden rate') is set. Although the rate remains uncertain, it is anticipated that the Government will set a discount rate which is higher than the current -0.75% rate. At this stage, following a review of a range of outcomes, Aviva has adopted a rate of 0.0% within the full year 2018 reserves. The positive impact of this reserve change (£190 million) has been excluded from the 2018 adjusted operating profit¹, a consistent treatment with the previous rate change in 2016.

Cash

Cash remitted to Group² was £2,549 million (2017: £1,800 million). 2018 includes an additional £500 million (2017: £500 million) of Friends Life integration remittance taking the total Friends Life integration remittances to £1.25 billion, exceeding the target of £1 billion, along with further special remittances of £750 million, reflecting the strong capital position of UK Life following recent positive longevity developments and management actions.

Expenses

Total expenses increased 3% year on year to £1,613 million (2017: £1,569 million) as we continue to focus on operational efficiency and invest in growth and simplification initiatives including building our BPA capability, updating our IT infrastructure, improvements to customer experience while also implementing mandatory requirements such as IFRS 17 and GDPR. Excluding these initiatives, expenses were broadly flat.

New business

Gross of tax and non-controlling interests	PVNBP ²		VNB ²		New Business Margin	
	2018 £m	2017 £m	2018 £m	2017 £m	2018 %	2017 %
Long-term savings	16,829	16,813	111	153	0.7%	0.9%
Annuities and equity release	4,784	4,287	196	157	4.1%	3.7%
Protection	1,799	1,964	140	183	7.8%	9.3%
Health and Other	534	700	34	34	6.4%	4.9%
Total	23,946	23,764	481	527	2.0%	2.2%

PVNBP² increased 1% to £23,946 million (2017: £23,764 million) as the growth in BPA and workplace pensions was offset by lower Platform, Protection and Health volumes. However, VNB² decreased by 9% to £481 million (2017: £527 million). The increase in PVNBP² is primarily due to BPA growth, including Aviva's largest BPA deal to date of £925 million with Marks and Spencer, while the overall reduction in VNB² reflects falls in protection and long-term savings.

Long-term savings VNB² reduction is mainly driven by lower Savings Platform volumes during and after service provider transition. It also reflects a reduction in workplace pension VNB², as an increase in volumes has been offset by a change in mix towards lower margin, larger pension schemes.

Annuities and equity release VNB² increased 25% to £196 million (2017: £157 million) driven by growth in BPA volumes with improved margins as we continued to participate in the market on a selective basis. Annuity VNB² includes an £85 million (2017: £96 million) impact of new business on the calculation of UK Life's transitional measures.

Protection VNB² reduced by 23% to £140 million (2017: £183 million) driven by an 8% reduction in sales to £1,799 million (2017: £1,964

million) in a competitive individual protection market and the impact of hardening reinsurance rates.

Health and Other VNB² was stable at £34 million (2017: £34 million) with a fall in volumes, as we exited the International PMI market, offset by increased margins.

Net written premiums (NWP) and combined operating ratio (COR)²

	Net written premiums		Combined operating ratio	
	2018 £m	2017 £m	2018 %	2017 %
United Kingdom General insurance				
Personal motor	1,125	1,142		
Personal non-motor	1,369	1,359		
UK Personal lines	2,494	2,501	92.4%	92.0%
Commercial motor	532	514		
Commercial non-motor	1,167	1,063		
UK Commercial lines	1,699	1,577	96.1%	96.7%
Total	4,193	4,078	93.8%	93.9%

NWP

NWP increased 3% to £4,193 million (2017: £4,078 million), the fourth consecutive year of growth, as we continue to focus on our preferred products and channels.

UK Personal lines was broadly in line with the prior year with a 1% fall in motor reflecting lower average premiums in the softer market, while non-motor increased 1% driven by growth in home.

UK Commercial lines increased 8%, driven by a 10% increase in Commercial non-motor, with solid growth in SME and Global Corporate Specialty (GCS) while commercial motor increased 4%.

COR²

UK General Insurance COR² of 93.8% is a 0.1pp improvement on prior year against the backdrop of the Beast from the East and the softer motor market. Improved underlying performance and higher prior year reserve releases, primarily from favourable experience in attritional and large injury claims, was partly offset by less favourable weather experience compared to prior year, although this was still favourable to the long term average.

UK Personal lines COR² of 92.4% was 0.4pp higher year on year, reflecting higher weather costs partly offset by higher prior year reserve releases and improved business mix.

UK Commercial lines COR² of 96.1% improved 0.6pp year on year, as our underlying performance improved from the continued disciplined underwriting and growth combined with higher prior year reserve releases, partly offset by higher weather costs.

Operational highlights

- Following the phased launch in 2018, we continue to deliver our new AvivaPlus proposition to more customers. The innovative general insurance proposition is simple to use, flexible and rewards loyalty. Our revolutionary new approach to insurance ensures existing home and motor customers get the same or better price than new customers, instant claims, no fees for paying monthly, fast quotes with fewer questions and customisable cover to ensure they stay in control.
- Through Quantum, our data science practice, we continue to simplify how customers buy from us. This capability is being used across life and general insurance, for individual, SME and partners such as HSBC and Barclays. We ask fewer questions and make it as simple as possible for our customers to find the best solution to suit their needs.

1 Adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to note B in the 'Accounting Policies' section, note 5 'Segmental Information' and 'Other Information' within the Annual report and accounts for further information

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- Our GCS business has continued to build capability that allows us to better service UK corporates with overseas exposure, delivering a multi-national proposition, which is important in future-proofing our business. Additionally, our client council is a market first, and helping to drive strong loyalty. Prevention is at the heart of our client proposition, with risk management improvements and innovative technological advancements that we have provided to our clients in 2018 having delivered over £60 million in known loss avoidance. Advancements include the use of drones, thermographic cameras and leak detection sensors.
- In January 2019 we launched our new SME Midmarket proposition, offering personalised advice, business insights based on data analytics and access to innovative technology to support mid-market brokers and customers access the right risk management expertise and insight to manage growth, as well as existing and emerging risks.
- We continue to invest in digital technology to help customers protect what's important to them; with our award winning Aviva Drive app with DashCam functionality, customers can get a discount on their car insurance and have an independent witness on-board to help in the event of an accident. With our Alexa skill we make it easier for our pensions customers to get their latest pension value from the comfort of their sofa and we can help customers protect their home while away with smart devices that alert you to leaks, smoke and intruders via our new Connected Home app.
- We are using robotics and automation to simplify our processes. Our protection customers are now able to provide consent to obtain medical information digitally, with 73% of customers responding within 24 hours, compared to a previous average of 30 days. We have used robotics to move almost 40,000 employees for one of our largest workplace pension clients onto our pension platform, reducing a 150-hour manual process to 10 hours and we have digitised payment and fund switching for around 1.75 million pension customers as part of our new easy transfer process for customers with pots below £30,000.
- In January 2018 we made a significant investment in our platform technology and migrated over 200,000 customers with 345,000 accounts and £20 billion of assets to a new provider. Despite some technical issues, our customers are now benefiting from improved reporting, extended investment choice and simpler online processes. Significant progress has been made to address the problems caused by the migration and to ensure any customers are not disadvantaged. Growth of the platform has been resilient throughout this period with assets under administration¹ up 12% in 2018 to £22.6 billion and net fund flows¹ continue to be positive at £3.9 billion.
- We are a trusted partner for individuals to manage their transition into and through retirement, with market leading propositions (investment, drawdown, annuity, equity release), online guides and tools and our in-house advice service, Aviva Financial Advice. In 2018 we launched a 'Mid-Life MOT' service for our own employees aged 45 and over, providing targeted guidance on wealth, work and wellbeing. We will use the findings from this pilot to help inform discussions with government and the business community about how best to support UK employees more broadly as they approach retirement.
- We continue to build on our defined benefit (DB) de-risking and bulk purchase annuity capabilities, supporting our business customers looking to reduce risk. In 2018 we wrote £2.6 billion of bulk purchase annuities, an increase of over 27% on 2017.

Market context and challenges

- We are well prepared for Britain's exit from the EU, despite the continued uncertainties as to the outcome of the negotiations.
- 2018 saw significant regulatory change in our UK markets, with the Markets in Financial Instruments Directive (MiFID), the Insurance Distribution Directive (IDD) and the General Data Protection Regulation (GDPR) coming into force.
- We promote strong regulation that is effectively targeted, efficiently delivered, and supports sustainable growth and innovation. Through active engagement with our regulator, we hope to see further improvements in the market over the next two to three years, including a fairer pension taxation system and a simpler regulatory environment which allows us to better serve the needs of our customers.
- April 2019 will see a further rise in auto-enrolment minimum contributions from 3% in 2018 to 5%, supporting better retirement prospects for all UK workers. Enquiries from small and medium sized businesses or their advisers about moving to a new auto-enrolment workplace pension provider have increased 80% year on year as companies realise the importance of workplace benefits.
- In 2018 the PRA launched a consultation process in respect of the capital required by firms offering equity release mortgages. We will continue to engage with the PRA throughout the consultation. We believe equity release is a valuable product for certain customers aged over 55, helping homeowners access money in their later life.
- In general insurance, market conditions have remained competitive across our entire product range, particularly a softening personal motor market. We believe injured motor claimants should be fully compensated for any injuries they receive, but it is also vital that individuals are not over-compensated to a level which increases the cost of insurance premiums for individuals and businesses, large and small. We have continued to support the need for motor insurance reform through our Road to Reform campaign. In 2018 the Civil Liability Bill, which will reform compensation for whiplash injuries from 2020, and the Ogden rate, used by the courts to determine awards for significant bodily injury claims, completed its passage through Parliament. Aviva has promised to pass on 100% of the savings to its customers.
- We fully support the FCA review on pricing practices for new and existing customers in the general insurance industry and are leading the market in tackling unfair pricing through our AvivaPlus proposition.
- We continue to improve prevention and detection of general insurance fraud for our customers. In 2018 we avoided over 15,000 fraudulent policies (20% more than 2017). We also repudiated £85 million in suspect fraudulent claims and have prosecuted 58 cases.
- We are committed to providing an excellent service for all our customers, but we know that sometimes things can go wrong. Where we fail to meet customers' expectations our first priority is to resolve the matter as quickly as possible and to act on the feedback we receive. We constantly work to improve our customer service, taking learnings from dissatisfaction and analysing the root cause of complaints in order to improve our customer performance. Following an industry wide miscategorisation issue in 2018 we have been working to ensure we categorise our complaints correctly, which has resulted in an increase in our regulated complaint numbers.

¹ This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APM's, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

Priorities for 2019

- To deliver growth in the UK by extending our advantage across products and intermediary partners, leveraging the power of Aviva's breadth of offering, while investing in future growth strategies.
- Build on our strong employer proposition and become the provider of choice in the workplace for employee investments and insurance.
- Build on our reputation as a trusted partner for individuals managing their transition into and through retirement.
- Focus on simplicity for customers and build simple digital solutions using our data and analytics capabilities (Quantum) to make it easier for our customers to do business with us.
- Drive operational efficiency, underpinned by a sustainable and robust IT infrastructure. Completing our data centre migration will be fundamental to supporting the level of service we offer.
- Build on our strong position with intermediaries by striving to be their partner of choice.
- We will continue to lead the industry on the big customer issues: simplifying our products and customer experience, increasing transparency and putting the customer at the heart of everything we do.

International

CANADA Overview

We are the second largest general insurance provider in the market place, providing a range of personal and commercial lines products to over 2.7 million customers with a 10% market share¹. Our business is primarily intermediated, sold through a network of 1,000 independent broker partners and, following our acquisition of RBC General Insurance (RBC GI) in 2016, RBC insurance agents.

Profitability of the business deteriorated in early 2017, principally due to increased physical damage and injury claims costs in our motor insurance line of business, and the trend of favourable reserve releases ceased. As Canadian motor insurance is heavily regulated, we had difficulty achieving rate increases quickly enough to offset the claims costs. In addition, 2017 and 2018 saw natural catastrophe losses above budget. As a result, adjusted operating profit^{2,4} in 2018 did not recover from the 2017 level despite the actions taken.

In 2018, we achieved significant rate increases in personal lines business, not all of which will have earned into the 2018 adjusted operating profit^{2,4}. We also reduced the number of intermediaries with access to our products as well as tightened underwriting criteria where appropriate. In commercial lines, our focus was on better risk selection which has hampered net written premium growth, although we are receiving higher premium for much of our renewed business. We expect the combination of rate increases, pricing sophistication and expense management to continue until we achieve our sub-96% target combined operating ratio³.

Financial performance

	2018 £m	2017 £m
Adjusted operating profit^{2,4}	46	46
Cash remitted to Group³	28	55
Expenses		
Operating expenses ³	477	478
Integration and restructuring costs	—	15
	477	493
Combined operating ratio (COR)³	102.4%	102.2%
Net written premiums (NWP)	2,928	3,028

During 2018, adjusted operating profit^{2,4} remained flat compared to the prior year at £46 million (2017: £46 million). The business also continued to experience challenges in the Canadian motor market and adverse weather conditions. Towards the end of 2017, an extensive profit remediation plan was put in place with ongoing actions around pricing, indemnity management and risk selection. The impacts of our extensive profitability actions have started to flow through our 2018 results. In the second half

of the year, our combined operating ratio³ for the six months to December 2018 improved to 100.2% (HY18: 104.6%).

All percentage movements below are quoted in constant currency unless otherwise stated.

Profit

	2018 £m	2017 £m
Adjusted operating profit^{2,4}		
Underwriting result	(70)	(64)
Long-term investment return	121	115
Other ⁵	(5)	(5)
Total adjusted operating profit^{2,4}	46	46

In 2018, the underwriting result was a loss of £70 million (2017: loss of £64 million), mainly driven by increased claims frequency and severity in our personal motor business, slightly adverse weather conditions compared to the long-term average and the inclusion of RBC GI integration costs within operating expenses³, partially offset by favourable prior year reserve development.

The underwriting loss, along with adverse market movements were the key drivers of the current year loss before tax attributable to shareholders' profits⁴ of £74 million (2017: £54 million).

Cash

Cash remittances³ during the year decreased to £28 million (2017: £55 million), reflective of our underwriting performance.

Expenses

Operating expenses³ remained broadly flat at £477 million (2017: £478 million), which includes costs of £11 million related to the completion of RBC GI systems migration and staff relocation. These costs were reported within integration and restructuring costs in 2017.

Net written premiums (NWP) and combined operating ratio (COR)³

	Net written premiums		Combined operating ratio ³	
	2018 £m	2017 £m	2018 %	2017 %
Personal lines	2,107	2,171	104.2%	102.5%
Commercial lines	821	857	97.8%	101.2%
Total	2,928	3,028	102.4%	102.2%

NWP

Net written premiums were down 3% to £2,928 million (2017: £3,028 million) but flat on a constant currency basis. In personal lines, lower new business sales were offset by rate increases. Commercial lines premiums reduced slightly over the prior year as rate increases were offset by lower new business sales and retention as we tightened our underwriting risk appetite.

COR³

The COR³ increased slightly to 102.4% (2017: 102.2%) due to elevated claims frequency and severity, particularly in motor, partially offset by favourable prior year reserve development.

1 Market Security & Analysis inc. 2017 online database

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5 Includes unwind of discount and pension scheme net finance costs

Market review > [Continued](#)

Operational highlights

- Launched a profitability action plan with over 30 distinct actions to improve financial performance.
- Completed 155 rate changes in personal lines.
- Piloted automated quoting for small commercial lines business.
- Completed the integration of RBC GI, decommissioning legacy RBC GI systems and processes and successfully migrated all RBC GI policies into our Guidewire (policy and claims) system.
- Reduced our number of offices from 27 to 21 which reduced our operational footprint (square footage) by 25%.

Market context and challenges

During 2018, adjusted operating profit¹ remained flat compared to the prior year as we continue to experience poor results in the Canadian motor market. Regulatory challenges, including restrictions on price increases, are faced in both the provinces of Ontario and Alberta, affecting the speed of our turnaround. Impacts from adverse weather conditions continue with current year catastrophe losses of £77 million well above the 5-year historical average of £58 million.

Priorities for 2019

- Our primary focus is to improve profitability across all lines of business.
- We will diversify our products more towards commercial lines and personal property.
- We will continue to invest in pricing analytics and claims management.

EUROPE Overview

Aviva has a focused approach in Europe with insurance operations in France, Italy, Poland, Ireland and Turkey. In the year we have completed our disposal of Spain and one of our joint ventures in Italy and acquired Friends First in Ireland.

Our European markets are a major contributor to the Group, providing a valuable source of diversification.

We have over 10 million customers and operate a multi-line model across all our European businesses except for Turkey where we offer life and savings products.

We are present in attractive markets where we have a competitive advantage and ability to source skills. We believe this offers us clear potential for future profitable growth.

We remain cognisant of low interest rates and challenging regulatory environments, and believe we are well positioned to succeed.

Financial performance

	2018 £m	2017 £m
Adjusted operating profit^{1,2}		
Life	831	873
General insurance & health	220	223
	1,051	1,096
Cash remitted to Group^{3,4}	447	485
Expenses		
Operating expenses ³	847	820
Integration and restructuring costs	—	36
	847	856
New business		
Present value of new business premiums (PVNBP) ³	12,641	12,065
Value of new business on an adjusted Solvency II basis (VNB) ³	517	533
General Insurance		
Combined operating ratio (COR) ³	93.4%	93.3%
Net written premiums (NWP)	1,985	2,018

All percentage movements below are quoted in constant currency unless otherwise stated.

Overall adjusted operating profit^{1,2} in Europe was down by 5% to £1,051 million (2017: £1,096 million). However excluding disposals, adjusted operating profit^{1,2} grew 10% to £1,034 million (2017: £944 million), driven primarily by our life businesses which continue to grow revenue, improve product mix and focus on expense efficiencies.

Profit

	Life		General insurance & health	
	2018 £m	2017 £m	2018 £m	2017 £m
Adjusted operating profit^{1,2}				
France (excl. Antarius)	436	403	110	104
Poland	170	156	20	21
Italy (excl. Avipop)	156	136	32	26
Ireland	44	33	56	53
Other Europe (excl. Spain) ⁵	10	12	—	—
Total (excl. Antarius, Avipop, Spain)	816	740	218	204
Antarius	—	22	—	—
Avipop	6	32	2	19
Spain	9	79	—	—
Total adjusted operating profit^{1,2}	831	873	220	223

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4 Cash remitted to Group is managed at legal entity level. As Ireland constitutes a branch of the United Kingdom business, cash remittances from Ireland are not aligned to our management structure within Europe, but they are reported within the United Kingdom

5 Includes Turkey.

Excluding the impact of disposals, the adjusted operating profit^{1,2} of our life businesses grew by 10% to £816 million (2017: £740 million). Dealing with each of the markets in turn:

- In France, adjusted operating profit^{1,2} was up 7% to £436 million (2017: £403 million), due to increase in new business volumes of our unit-linked savings products.
- In Poland, adjusted operating profit^{1,2} was £170 million (2017: £156 million), an increase of 8% as a result of the favourable impact of equity market movements on assets under management³ increasing fee income and an improved mix towards protection business.
- In Italy, adjusted operating profit^{1,2} was £156 million (2017: £136 million), an increase of 14% with significant net inflows mainly driven by an increase in new business volumes of our hybrid product.
- In Ireland, adjusted operating profit^{1,2} increased to £44 million (2017: £33 million), an increase of 31% mainly driven by the acquisition of Friends First, longevity releases and asset mix optimisation on the annuity book, partially offset by lower sales of annuity products.
- In Turkey, adjusted operating profit^{1,2} was lower at £10 million (2017: £12 million), due to adverse foreign exchange movements. However on a constant currency basis, profits were up 8% due to growth in protection products.

Excluding disposals, the adjusted operating profit^{1,2} of our General insurance businesses grew by 6% to £218 million (2017: £204 million). Dealing with each of the markets in turn:

- In France, adjusted operating profit^{1,2} was £110 million (2017: £104 million), an increase of 5%, due to growth, particularly in commercial lines, turnaround of the health business and expense efficiencies, partially offset by higher large losses and weather-related claims.
- In Poland, adjusted operating profit^{1,2} was £20 million (2017: £21 million) with the slight decrease mainly due to motor business with improved performance in other lines of business.
- In Italy, adjusted operating profit^{1,2} increased to £32 million (2017: £26 million) mainly driven by claims management actions on the motor book.
- In Ireland, adjusted operating profit^{1,2} increased to £56 million (2017: £53 million) driven by improvements to product mix and higher earned premiums, partially offset by an increase in large claims.

Profit before tax attributable to shareholders' profits² has reduced to £995 million (2017: £1,044 million) as a result of lower profits on disposal compared to 2017, partially offset by lower adverse investment variances and economic assumption changes.

Cash

Cash remitted to the Group^{3,4} was £447 million (2017: £485 million). Higher dividends from France and Poland were offset by Italy, where the dividend was withheld to withstand the volatile market conditions experienced in the year.

Expenses

Total operating expenses³ were up 2% to £847 million (2017: £820 million) due to the inclusion of the Friends First business in

Ireland for the first time and the absorption of integration costs into operating expenses³ in 2018, partly offset by a reduction due to the disposal of our Spanish businesses. Excluding these items, operating expenses³ are flat year on year.

New business

Excluding disposals, PVNBP³ was up by 20% to £12,625 million (2017: £10,552 million) and VNB³ increased by 13%. In Italy VNB³ growth of 36% was mainly due to continued growth in sales of our hybrid savings product. In France, PVNBP³ was up 6% reflecting growth in sales of savings products, although VNB³ was down 4% primarily due to reduced protection volumes and new business margin reflecting increased competition in this market.

Net written premiums (NWP)

Excluding Avipop, NWP was broadly flat with growth in France offset by decreases in Poland, Italy and Ireland, as we maintained strong underwriting discipline. In France, NWP grew to £1,118 million (2017: £1,053 million) with growth mainly in commercial lines. In Poland, NWP decreased by 10% to £106 million (2017: £117 million) reflecting a change in product mix from bancassurance business. In Italy, NWP decreased by 7% due to continued underwriting action taken on segments of the motor book. In Ireland, NWP was down 2% mainly due to rate reductions in a softening motor market.

Combined operating ratio (COR)³

Excluding the disposal of Avipop, COR³ in Europe has improved by 0.4pp to 93.5% primarily reflecting an improved performance in Italy as underwriting action on the motor book takes effect.

Operational highlights

- In 2018, we completed the sale of our shareholdings in Caja Murcia Vida, Caja Granada Vida and Pelayo Vida, concluding the exit of our Spanish businesses. In Italy, we completed the sale of our shareholdings in Avipop Assicurazioni S.p.A and Avipop Vita S.p.A. (collectively known as Avipop) in March 2018. In Ireland, we completed our acquisition of Friends First Life Assurance Company in June 2018.
- In France we achieved strong profit growth and continued to outperform the market by shifting our product mix towards capital-efficient unit-linked products. In 2018, we realigned under a single brand and made it easy for our customers to get the same products at the same price no matter which distribution channel they choose. We were also the first insurer to be granted a license to transfer our pensions business into a supplementary occupational pension fund (known as FRPS), improving our capital efficiency and providing a unique offering to retirement and pensions customers.
- In Italy our hybrid product continued to be highly successful, supported by our continued innovation and top performing funds, driving strong value of new business on an adjusted Solvency II basis (VNB)³ growth and net flows in the Group.
- Our Polish business has experienced profit growth due mainly to positive macroeconomic factors and supported by a strong reputation in the market. MyAviva platform has increased both the unique user base and the number of online transactions. The Santander relationship in Poland has been improved and there is a good level of growth from ING Poland.

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4 Cash remitted to Group is managed at legal entity level. As Ireland constitutes a branch of the United Kingdom business, cash remittances from Ireland are not aligned to our management structure within Europe, but they are reported within the United Kingdom

- In Ireland we completed the acquisition of Friends First and made significant progress with the integration. The integration programme is ahead of expectations with benefits in 2018 continuing in 2019 and 2020. Our strong brand continued to shine as we achieved the most trusted insurance brand of 2018¹.
- In Turkey we developed a new distribution model, launched in February 2019, that allows our direct sales force to sell general insurance and health products, manufactured by other insurers, alongside Aviva life insurance products

Market context and challenges

- In France we offer a full range of life, general insurance, protection and health insurance products with strength in distribution through AFER, the number 1 savers association², UFF the number 2 financial adviser network² and through our number 2 direct general insurance business². In late 2018 the French government proposed new laws that seek to shift savings and investment towards the real economy, bringing about further opportunities for our savings and retirement business.
- In Italy we offer life, general and health insurance, with distribution through two major bancassurance partnerships, multi-agents and independent financial advisers. Political uncertainty and a change of government have caused volatility in financial markets.
- In Poland we are one of the leading life insurers³ with one of the largest tied agent salesforces on the market. We provide general insurance distributed through a direct sales network, financial advisers and two key bancassurance partnerships.
- In Ireland we are a market leading composite insurer⁴, and continue to benefit from a strong macroeconomic environment with high GDP and low unemployment. Despite softening in the general insurance market, we achieved a 92% combined operating ratio (COR)⁵ demonstrating the strength of our underwriting capability.

- In Turkey we have a life insurance business through our joint venture with Sabanci. Our business has responded well to the political instability and financial volatility in the second half of 2018.

Priorities for 2019

- In France we will leverage the benefits of our single brand with focus on four customer propositions (digital, professionals, affluent and partnerships). We will also look to strengthen our broker distribution and develop savings solutions aligned to customer needs and the real economy, continuing to shift our product mix towards unit-linked products and grow our protection business.
- In Italy we will focus on brand awareness, growing the non-motor general insurance business in an under-penetrated market; invest in our direct channel to drive forward our new SME propositions, and continue growth in hybrid sales.
- In Poland we remain focused on digitising through both self-service and IFA platforms. We will continue expansion of bancassurance partnerships with additional product launches in pipeline and also look to exploit profitable and growing niches in group life business and commercial lines general insurance.
- In Ireland we will focus on delivering the benefits of a strong combined life insurance business with the integration of Friends First. In particular, we will invest in new propositions and improved customer journeys to meet the changing needs of our customers. We will maintain a market leading position in general insurance by leveraging our best-in-class underwriting, pricing and indemnity management capabilities, and will continue to invest in digitisation to improve efficiency and our customer experience.
- In Turkey we will closely monitor the impact of current political and financial uncertainty and take action where required. We will simplify our portfolio and implement cross-sell initiatives to maximise the potential of our partnership with Sabanci.

1 Aviva Global Brand Tracker Quarter 4 2018 – Ireland

2 AFER website, UFF website and French Insurance Federation

3 Polish Insurance association.

4 Insurance Ireland Industry Statistics, GI and Milliman Temperature Gauge, Life.

5 This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

Asia

Overview

We are focused on six key markets: four large populous nations China, India, Indonesia and Vietnam, and two advanced regional wealth management centres in Hong Kong and Singapore. These markets provide an accessible population of over 3 billion people with relatively low insurance penetrations compared to more developed Western markets. This offers us tremendous growth opportunities in the region.

We currently provide life and health insurance solutions to over 4.5 million customers across our markets in Asia and a multi-product offering including general insurance in Singapore. We operate a multi-distribution strategy which includes tied agency, financial advisers, bancassurance, digital, affinity partnerships, telemarketing and direct sales force.

Our core strategy is to disrupt current market practices by placing a greater emphasis on our customers and offering products, individually or in tailored combinations, to meet their preferences to create real value.

Investment in Asia's distribution, digital and analytics capabilities continued throughout 2018. Singapore continues to grow its distribution network, including our financial adviser subsidiaries Aviva Financial Advisers with 816 (2017: 673) advisers and Professional Investment Advisory Services with 724 (2017: 593) advisers on board. Aviva-COFCO, our joint venture in China, posted a modest growth in adjusted operating profit^{1,3} amid regulatory tightening and an economic slowdown. In Hong Kong, we launched Blue, our new digital life joint venture with Tencent and Hillhouse in September 2018, which is expected to disrupt the insurance market. Aviva Vietnam, which is now a wholly owned subsidiary, is accelerating its business via a stronger partnership with Vietinbank. In 2018, we also completed the sale of our entire 49% shareholding in a joint venture in Taiwan.

Financial performance

	2018 £m	2017 £m
Adjusted operating profit^{1,3}		
Life	300	235
General insurance & health	(16)	(8)
	284	227
Cash remitted to Group²	6	—
Expenses		
Operating expenses ^{2,4}	186	207
Integration and restructuring costs	—	—
	186	207
New business		
Present value of new business premiums (PVNBP) ²	2,656	2,719
Value of new business on an adjusted Solvency II basis (VNB) ²	189	162
General Insurance		
Combined Operating Ratio (COR) ²	122.1%	123.2%
Net written premiums (NWP)	13	13

All percentage movements below are quoted in constant currency unless otherwise stated.

Profit

	2018 £m	2017 £m
Adjusted operating profit^{1,3}		
Life adjusted operating profit^{1,3}		
Singapore	141	118
Other Asia (excl. FPI, Taiwan)	8	(3)
Total (excl. FPI, Taiwan)	149	115
General insurance & health adjusted operating profit^{1,3}	(16)	(8)
Total adjusted operating profit^{1,3} (excl. FPI, Taiwan)	133	107
FPI ⁵	151	119
Taiwan ⁶	—	1
Total adjusted operating profit^{1,3}	284	227

Adjusted operating profit^{1,3} from our life and general insurance and health businesses was £284 million (2017: £227 million). Excluding FPI and Taiwan, life adjusted operating profit^{1,3} increased by 31% to £149 million (2017: £115 million). Within this, Singapore's adjusted operating profit^{1,3} improved by 21% to £141 million (2017: £118 million), which was mainly due to a higher contribution from the financial advisory channel. Improved results in China, Indonesia and Vietnam were partly offset by the initial set up costs of Blue in Hong Kong. Life adjusted operating profit^{1,3} for FPI improved from £119 million to £151 million as a result of improved operational performance and cost reductions.

The general insurance and health business reported a £16 million adjusted operating loss^{1,3} (2017: £8 million loss) as a result of higher claims experience in our health business in Singapore. Management has identified a number of actions, including re-pricing, product design changes and cost containment measures to improve the portfolio performance. These remediation actions have commenced in 2018 and will continue throughout 2019.

Profit before tax attributable to shareholders' profit³ of £101 million has increased from a loss of £146 million in 2017, due in part to the improved adjusted operating profit^{1,3} and also to the non-recurrence of the £118 million initial remeasurement loss recognised on FPI in 2017.

Cash

Cash remitted to Group² in 2018 was £6 million (2017: £nil) as the successful progress of our business in Singapore has allowed the business to resume paying a dividend.

Expenses

Total operating expenses² for Asia were £186 million (2017: £207 million). Excluding FPI, operating expenses² were £143 million (2017: £150 million). The decrease is mainly as a result of cost saving initiatives as well as lower project development and IT costs.

New business

	PVNBP		VNB ²		New Business Margin	
Gross of tax and non-controlling interests	2018 £m	2017 £m	2018 £m	2017 £m	2018 %	2017 %
Singapore	1,279	1,164	152	123	11.9%	10.6%
Other Asia	929	930	39	38	4.2%	4.0%
Total (excl. FPI, Taiwan)	2,208	2,094	191	161	8.6%	7.7%
FPI ⁵	448	467	(2)	(6)	(0.3)%	(1.2)%
Taiwan ⁶	—	158	—	7	—	4.4%
Total	2,656	2,719	189	162	7.1%	6.0%

1 Adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to note B in the 'Accounting Policies' section, note 5 'Segmental Information' and 'Other Information' within the Annual report and accounts for further information.

2 This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

3 The amounts shown above in respect of adjusted operating profit and profit before tax attributable to shareholders' profits do not reconcile to the corresponding amounts in note 5 - 'Segmental information' within the Annual report and accounts due to the reclassification of non-insurance business to Other Group activities.

4 Operating expenses relate to subsidiaries and exclude joint ventures.

5 In July 2017, Aviva announced the sale of Friends Provident International Limited (FPI). The subsidiary has been classified as held for sale from July 2017, when management were committed to a plan to sell the business.

6 In 2018 Aviva completed the sale of our entire 49% shareholding in a joint venture in Taiwan.

While PVNBP¹ has remained stable at £2,656 million in 2018, estimated VNB¹ increased by 18% to £189 million (2017: £162 million). Excluding FPI and Taiwan, VNB¹ increased 22% to £191 million (2017: £161 million), primarily driven by Singapore where higher new business volumes from the financial advisory channel and an improved product mix towards protection products improved VNB¹ to £152 million (2017: £123 million).

Net written premiums (NWP) and combined operating ratio (COR¹)

General insurance NWP were flat at £13 million (2017: £13 million). The general insurance COR¹ improved by 1.1pp to 122.1% (2017: 123.2%) as a result of improved claims experience.

Operational highlights

- In May 2018, we were the first and only insurer in Singapore to launch eCall assistance service in collaboration with Bosch for our motor clients. This eCall assistance is expected to be quicker by 40% compared to the average emergency response
- In July 2018, we launched Aviva's global data science practice in Singapore, Quantum Asia Hub, to use data and technology to better understand customer experience and provide tailored products and services to help our customers manage uncertainty
- We launched Blue, our digital insurance joint venture with Hillhouse Capital and Tencent in Hong Kong, in September 2018 to fundamentally change the traditional insurance market with zero commission, no intermediaries and easy-to-use, digital insurance.

Market context and challenges

We continue to believe that the long-term favourable trends of the emerging middle-class, increasing awareness of retirement planning and a growing market in healthcare will persist across the region. We also believe Asia will continue to outperform other markets in insurance growth towards 2020. Rising interest rates could also potentially benefit life insurers.

Asia is experiencing rapid growth in internet, social media and mobile activity, and China is leading in the technology revolution and digital applications. Today, digital has become an essential part of our daily lives and we are strongly encouraged by the Asian governments' support of Fintech and consumers' continued rapid adoption.

Priorities for 2019

- We will continue to invest in our independent financial adviser model in Singapore to accelerate growth while looking to capture similar opportunities in other Asian markets
- We will continue to invest in our digital capabilities which will help us to drive customer engagement, improve customer experiences and increase operational efficiency
- We will further embrace the True Customer Composite model in Asia to serve our customers in life, health, general insurance and asset management
- Our focus in China is to accelerate growth by enhancing our agency programme and geographical branch expansion
- We will continue to implement remediation actions to improve the portfolio performance of our health business in Singapore.

¹ This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

Aviva Investors

Overview

We are Aviva's global asset management business with expertise in multi-asset, fixed income, equity, real assets and solutions. We currently invest £331 billion on behalf of our customers across a number of major markets. This gives us the size and scale to successfully seek out opportunities that will deliver specific investor outcomes.

Aviva Investors' strategy is to be a global leader in outcome-orientated solutions. Being an integral part of the Group, we provide asset management services and solutions to both internal and external customers, while at the same time building our external base of institutional and wholesale clients around the world. We combine our insurance heritage and DNA with our skills and experience in asset allocation, portfolio construction and risk management to provide asset management solutions to institutional, wholesale and Aviva's end retail clients. These solutions deliver the investment outcomes clients are looking for.

In a world of low interest rates and Solvency II, we provide the solutions for investors to achieve the returns they need. We offer solutions to the Group and external investors alike.

Financial performance

	2018 £m	2017 £m
Revenue: Fee income	597	577
Expenses		
Operating expenses ²	447	409
Integration and restructuring costs	—	3
	447	412
Adjusted operating profit^{1,2}		
Fund management	150	168
Other operations	—	32
	150	200
Assets under management²	331bn	351bn
Cash remitted to Group²	92	58

We continue to invest in growing our investment capabilities across all asset classes and propositions, particularly in strengthening Equities. During the year, we created a new Real Assets division, focused on direct real estate and infrastructure investing. We further expanded our distribution capability, particularly in the US. As a result, we have experienced new business wins across a broader range of products, creating a more diversified client base.

Revenue

Revenue increased by 4% to £597 million (2017: £577 million) driven by sales across the business including £2.3 billion of Stewardship fund assets in 2018 which were previously externally managed.

Expenses

Operating expenses² in Aviva Investors were £447 million (2017: £409 million). The increase in expenses reflects our investment in our front office capabilities and expanded distribution reach. It also reflects increased costs due to regulatory changes.

Profit

Fund management adjusted operating profit¹ decreased by £18 million to £150 million (2017: £168 million) due to continued investment in capabilities (equities and real assets), expansion of our global distribution reach and absorption of regulatory costs (particularly MiFID II) which we did not pass on to our clients. Profit before tax attributable to shareholders' profit has reduced to £170 million (2017: £188 million) due to the lower fund management adjusted operating profit¹. £32 million of insurance recoveries included in 2017 adjusted operating profit¹ are largely offset by the 2018 gain on disposal recognised on the transfer of the Real Estate Multi-Manager business and our interest in the management of a pan-European commercial property fund to another leading real estate global asset manager³.

Cash

Cash remitted to Group² was £92 million in 2018, an increase of £34 million from 2017 (2017: £58 million).

Assets under management and under administration²

Assets under management² represents all assets managed by Aviva Investors. These comprise Aviva (internal) assets which are included within the Group's statement of financial position and those belonging to external clients outside the Aviva Group which are therefore not included in the Group's statement of financial position. These assets under management² exclude those funds that are managed by third parties. Assets under administration² comprise assets managed by Aviva Investors and by third parties on platforms administered by Aviva Investors.

Assets under management² decreased by £20.0 billion to £330.7 billion (2017: £350.7 billion) during the period. This is due to £6.3 billion of disposals³, £12.4 billion adverse market and foreign exchange movements and £1.3 billion net outflows. Assets under management and administration² at 31 December 2018 were £359.8 billion (2017: £381.2 billion).

Operational highlights

- We took a decision to strengthen our Equity team in 2018. David Cumming was hired to head the area and we added an additional 14 portfolio managers to bolster both our standalone Equity propositions and idea generation for our multi-asset solutions.
- We created an integrated Real Assets business in May, combining our Real Estate and Alternative Income Solutions functions. We are already at a position of strength, as we have a long history in this area and £40 billion of assets under management². With global allocations to private assets expected to double by 2025, we now have the right structure in place to deliver opportunities for clients.
- As part of the integration of our Real Assets business, we transferred our indirect Real Estate Multi-Manager business and our interest in the management of a pan-European commercial property fund to another leading real estate global asset manager.
- We successfully onboarded the management of £2.3 billion in Stewardship funds in 2018, which had previously been outsourced.
- We also created a new solutions function under Al Denholm, focused on insurance solutions and environmental, social thinking and governance (ESG) capabilities while working across our broad capability set to deliver tailored outcome-orientated solutions for the Group and external clients.

1 Adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to note B in the 'Accounting Policies' section, note 5 'Segmental Information' and 'Other Information' within the Annual report and accounts for further information

2 This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

3 On 5 November 2018, Aviva Investors completed the sale of an indirect Real Estate Multi-Manager business and our interest in the management of a pan-European commercial property fund to another leading real estate global asset manager.

Market context and challenges

Brexit uncertainty continues to present challenges for the asset management industry. We continue to plan for all eventualities but believe Aviva Investors is already well placed both globally, and particularly within Europe, as we have a significant and long-standing established presence in France, Luxembourg and Poland. Our preparations are also well underway for the outcomes of the FCA's Asset Management Market Study and the Senior Manager and Certification Regime.

Market conditions have been volatile due to uncertainty around Brexit and growing trade tensions between the US and the rest of the world. This led to investment performance in certain areas of the business not meeting expectations. We have however taken steps to enhance our investment capabilities in 2018, including adding additional resource to our Multi-Asset team and investing heavily in our Equities capability, primarily to enhance our equity performance but also idea generation into our broader solutions including AIMS. We believe we are at something of an inflection point in markets as the period of quantitative easing draws to a close and we transition to an environment of quantitative tightening. We expect global growth to ease in 2019.

In a slowing growth environment, market participants are likely to focus even more on the downside risks. That should provide a basis for positive, but likely mixed returns across risk assets.

Priorities for 2019

We will continue to build our investment capabilities, while also selectively diversifying our business. Our key focus is on enhancing investment returns for our clients. We will do this by:

- Building our Real Asset manufacturing capability across Europe
- Continuing to invest in our Equity proposition to add value to our Multi-Asset propositions
- Continuing to build our solutions business. Our insurance DNA for both the Group and our external clients should help us win in this space
- Continuing to build out our distribution efforts in key markets including third party insurers and partnerships with global financial institutions
- Continuing to simplify and streamline our operating model delivering a single Middle office, reducing fund complexity and using proprietary digital tools as a foundation to enhance our client and staff experience.

[Risk and risk management](#)

Risk and risk management

Risk management is key to Aviva's success. We accept the risks inherent to our core business lines of life, general, health and protection and asset management. We diversify these risks through our scale, geographic spread, the variety of the products and services we offer and the channels through which we sell them.

We receive premiums which we invest to maximise risk-adjusted returns, so that we can fulfil our promises to customers while providing a return to our shareholders.

In doing so we have a preference for retaining those risks we believe we are capable of managing to generate a return.

Looking forward, these risks may be magnified or dampened by current and emerging external trends (for example, climate change, cyber crime and political risks, such as Brexit) which may impact upon our current and longer term profitability and viability, in particular our ability to write profitable new business.

This includes the risk of failing to adapt our business model to take advantage of these trends. The 'Principal risk trends and causal factors' table in this section describes these trends, their impact, future outlook and how we manage these risks.

How we manage risk

Rigorous and consistent risk management is embedded across the Group through our Risk Management Framework, comprising our systems of governance, risk management processes and risk appetite framework.

Our governance

This includes risk policies and business standards, risk oversight committees and roles and responsibilities. Line management in the business is accountable for risk management which, together with the risk function and internal audit, form our 'three lines of defence'. The roles and responsibilities of the Board Governance, Audit and Risk Committees and management's Disclosure, Asset Liability and Operational Risk Committees in relation to the oversight of risk management and internal control is set out in the 'Directors' and corporate governance report' in the Annual report and accounts.

Our process

The processes we use to identify, measure, manage, monitor and report risks, including the use of our risk models, and stress and scenario testing, are designed to enable dynamic risk-based decision-making and effective day-to-day risk management. Having identified and measured the risks of our business, depending on our risk appetite, we either accept these risks or take action to reduce, transfer or mitigate them.

Our risk appetite framework

This refers to the risks that we select in pursuit of return on capital deployed, the risks we accept but seek to minimise and the risks we seek to avoid or transfer to third parties, including quantitative expressions of the level of risk we can support (e.g. the amount of capital we are prepared to put at risk).

Types of risk inherent to our business model

Risks customers transfer to us

- Life insurance risk includes longevity risk (annuity customers living longer than we expect), mortality risk (customers with life protection), critical illness risk, expense risk (the amount it costs us to administer policies) and persistency risk (customers lapsing or surrendering their policies)
- General insurance risk is the risk arising from loss events (fire, flooding, windstorms, accidents etc)
- Accident and Health insurance risk covers healthcare costs and loss of earnings arising from customers falling ill

Risks arising from our investments

- Credit risks (actual defaults and market expectation of defaults) create uncertainty in our ability to offer a minimum investment return on our investments
- Liquidity risk is the risk of not being able to make payments as they become due because there are insufficient assets in cash form
- Market risks result from fluctuations in asset values, including equity prices, property prices, foreign exchange, inflation and interest rates

Risks from our operations and other business risks

- Operational risk is the risk of direct or indirect loss, arising from inadequate or failed internal processes, people and systems, or external events including changes in the regulatory environment
- Asset management risk is the risk of customers redeeming funds, not investing with us, or switching funds, resulting in reduced fee income

Principal risk types

The types of risk to which the Group is exposed, described in the table below, have not changed significantly over the year. All of the risks below, and in particular operational risks, may have an adverse impact on our brand and reputation.

Risk type	Risk preference	Mitigation
Credit risk <ul style="list-style-type: none"> • Credit spread¹ • Credit default 	We like credit risk as we believe we have the expertise to manage it and the structural investment advantages conferred to insurers with long-dated, relatively illiquid liabilities enable us to earn superior investment returns.	<ul style="list-style-type: none"> • Risk appetites set to limit overall level of credit risk • Credit limit framework imposes limits on credit concentration by issuer, sector and type of instrument • Investment restrictions on certain sovereign and corporate exposures • Credit risk hedging programme • Specific asset de-risking
Market risk <ul style="list-style-type: none"> • Equity price¹ • Property • Interest rate • Foreign exchange • Inflation 	We actively seek some market risks as part of our investment and product strategy. We have a limited appetite for interest rate, foreign exchange and inflation risks as we do not believe that these are adequately rewarded.	<ul style="list-style-type: none"> • Risk appetites set to limit exposures to key market risks • Active asset management and hedging in business units • Scalable Group-level equity and foreign exchange hedging programme • Pension fund active risk management • Asset and liability duration matching limits impact of interest rate changes and actions taken to manage guarantee risk, through product design
Life insurance risk <ul style="list-style-type: none"> • Longevity¹ • Persistency • Mortality • Expenses 	We take measured amounts of life insurance risk provided we have the appropriate core skills in underwriting and pricing. We like longevity risk as it diversifies well (i.e. has little or no correlation against other risks we retain).	<ul style="list-style-type: none"> • Risk selection and underwriting on acceptance of new business • Aviva's staff pension scheme longevity swap covering approximately £5 billion of pensioner-in-payment scheme liabilities • Product design that ensures products and propositions meet customer needs • Use of reinsurance to mitigate mortality/morbidity risks and, since 2016, longevity risk for bulk purchase annuities and guaranteed annuity options
General insurance risk <ul style="list-style-type: none"> • GI catastrophe • GI reserving (latent and non-latent) • GI underwriting • Expenses 	We take general insurance risk in measured amounts for explicit reward, in line with our core skills in underwriting and pricing. We have a preference for those risks that we understand well, that are intrinsically well managed and where there is a spread of risks in the same category. GI risk diversifies well with our Life Insurance and other risks.	<ul style="list-style-type: none"> • Use of reinsurance to reduce the financial impact of a catastrophe and manage earnings volatility • Application of robust and consistent reserving framework to derive best estimate with results subject to internal and external review, including independent reviews and audit reviews • Extensive use of data, financial models and analysis to improve pricing and risk selection • Underwriting appetite framework linked to delegations of authority that govern underwriting decisions and underwriting limits • Product development and management framework that ensures products and propositions meet customer needs • Formal and documented claims management procedures
Liquidity risk²	The relatively illiquid nature of insurance liabilities is a potential source of additional investment return by allowing us to invest in higher yielding, but less liquid, assets such as commercial mortgages.	<ul style="list-style-type: none"> • Maintaining committed borrowing facilities (£1.65 billion) from banks • Asset liability matching methodology develops optimal asset portfolio maturity structures in our businesses to ensure cash flows are sufficient to meet liabilities • Commercial paper issuance • Use of our limit framework covering minimum liquidity cover ratio and minimum central liquidity • Contingency funding plan in place to address liquidity funding requirements in a significant stress scenario
Asset management risk <ul style="list-style-type: none"> • Fund liquidity, performance and margin, Product, and Persistency risks 	Operational risks specific to asset management should generally be reduced to as low a level as is commercially sensible, on the basis that taking on these risks will rarely provide us with an upside.	<ul style="list-style-type: none"> • Product development and review process • Investment performance and risk management oversight and review process • Propositions based on customer needs • Client relationship teams managing client retention risk
Operational risk <ul style="list-style-type: none"> • Conduct • Legal & regulatory • People • Process • Data security • Technology 	Operational risk should generally be reduced to as low a level as is commercially sensible, on the basis that taking operational risk will rarely provide us with an upside.	<ul style="list-style-type: none"> • Application of enhanced business standards covering key processes • Our Operational Risk & Control Management Framework which includes the tools, processes and standardised reporting necessary to identify, measure, manage, monitor and report on the operational risks and the controls in place to mitigate those risks within centrally set tolerances • Enhanced scenario-based approach to determine appropriate level of capital to be held in respect of operational risks • On-going investment in simplifying our technology estate to improve the resilience and reliability of our systems and in IT security to protect ours and our customers' data

¹ Top three risks ranked by diversified Solvency II Solvency Capital Requirement

² Not quantifiable in terms of economic capital

Principal risk trends and causal factors

This table describes the external trends and causal factors impacting our inherent risks, their impact, future outlook and how we take action to manage these risks:

Key trends and movement	Risk management	Outlook
<p>Economic & credit cycle – uncertainty over prospects for future macroeconomic growth, credit and interest rates, and the response of Central Banks, could adversely impact the valuation of our investments or credit default experience as well as the level of the returns we can offer to customers.</p> <p>Trend: Increasing</p> <p>Risks impacted: Credit risk, Market risks, Liquidity risk</p>	<p>Over the last few years we have taken significant steps to reduce the sensitivity of our balance sheet to investment risks. We aim to closely duration-match assets and liabilities and take additional measures to limit interest rate risk. We hold substantial capital against market risks, and we protect our capital with a variety of hedging strategies to reduce our sensitivity to shocks. We regularly monitor our exposures and employ both formal and ad hoc processes to evaluate changing market conditions. Other actions taken in the past include reducing sales of products with guarantees and shifting our sales towards protection and unit-linked products.</p>	<p>While interest rates are still well below pre-financial crisis levels, during 2018 the US Federal Reserve raised interest rates on four occasions, in August the Bank of England raised its base rate and in December the European Central Bank ended its asset purchase programme. While rates may remain below pre-2008 financial crisis levels in the EU and UK for some time to come, there is a risk that a rapid increase in rates and a deterioration in companies' fundamentals could result in a re-rating of financial assets leading to a collapse in bond prices, widening spreads or credit defaults and reducing asset prices.</p>
<p>UK-EU relations (Brexit uncertainty) – there remains considerable uncertainty over the UK's future relationship with the EU, and the implications for economic growth and productivity and in the longer term for financial services regulation, including Solvency II.</p> <p>Trend: Volatile</p> <p>Risks impacted: Credit risk, Market risks, Operational risk</p>	<p>Brexit is not expected to have a significant operational impact on Aviva. We have been actively engaged to ensure the interests of our customers, the Company and the industry are appropriately taken into account. We have addressed the loss of our ability to passport business into the EU through insurance portfolio transfers to our business in Ireland and expansion of our business in Luxembourg to serve our EEA asset management clients and funds. We have reviewed and are amending contractual terms for data sharing and transfers to allow continued uninterrupted flow of personal data between our EU businesses and the UK. Our Financial Event Response Plan ensures that we will be able to respond swiftly and effectively to any severe adverse financial event.</p>	<p>UK Parliamentary approval of the EU Withdrawal agreement remains uncertain and there are a number of possible alternative outcomes including departure from the EU without a deal, deferral of the UK's departure and a renegotiated deal or even continuing membership of the EU after a second referendum.</p> <p>Uncertainty over UK-EU relations will continue if as planned the UK withdraws on 29 March 2019, as the UK and EU start to negotiate their future free trade agreement. While these negotiations are intended to complete by 31 December 2020, the end of the transition period under the withdrawal agreement, there is a risk they may need to be extended.</p>
<p>Changes in public policy – any change in public policy (government or regulatory) could influence the demand for, and profitability of, our products. In some markets there are (or could be in the future) restrictions and controls on premium rates, rating factors and charges.</p> <p>Trend: Volatile</p> <p>Risks impacted: Operational risk (developing the right strategy, regulatory compliance)</p>	<p>We actively engage with governments and regulators in the development of public policy and regulation. We do this to understand how public policy may change and to help ensure better outcomes for our customers and the Company. The Group's multi-channel distribution and product strategy and geographic diversification underpin the Group's adaptability to public policy risk, and often provides a hedge to the risk. For example, since the end of compulsory annuitisation in 2015 in the UK we have compensated for falling sales of individual annuities by increasing sales of other life and pension products including bulk purchase annuities.</p>	<p>The UK government's lack of parliamentary majority and Brexit divisions could trigger a general election and change of government resulting in a shift in public policy with consequences for the products we sell and our investment strategy. Planned key UK regulatory changes include Guaranteed Minimum Pension equalisation, renewal pricing, Equity Release Mortgage regulation, changes to the Ogden rate and Whiplash Reform. In our other markets: general elections will be held in Canada and Poland in 2019; in France the Pacte Law 1 will significantly change the French savings market; and Italy-EU relations may remain volatile over Italian fiscal policy.</p>
<p>New technologies & data – failure to understand and react to the impact of new technology and its effect on customer behaviour and how we distribute products could potentially result in our business model becoming obsolete. Failure to keep pace with the use of data to price more accurately and to detect insurance fraud could lead to loss of competitive advantage and underwriting losses.</p> <p>Trend: Increasing</p> <p>Risks impacted: Operational risk (developing the right strategy)</p>	<p>Aviva's strategy is focused on transformation into a digital leader by taking an enterprise-wide approach to digital and automation, focused on: [1] Digital customer centric propositions (e.g. AvivaPlus) [2] A single view of the customer, consolidating individual and company data on a single platform [3] MyAviva, our digital portal for customers and intermediaries [4] Quantum, our data science practice facilitating market leading innovation in use of data analytics to significantly improve the customer journey (e.g. Ask it Never), improve our understanding of how customers interact with us, and improve underwriting margins. Our Data Charter sets out our public commitment to use data responsibly and securely. Considerable work is going into modernising our legacy infrastructure.</p>	<p>Data creation is likely to continue to grow, while effective use of "Big data" through artificial intelligence and advanced analytics will increasingly become a critical driver of competitive advantage for insurers, and subject to increasing regulatory scrutiny.</p> <p>The competitive threat to traditional insurers is likely to increase with the potential for big technology companies and low cost innovative digital start-ups to enter the insurance market, where previously underwriting capability, risk selection and required capital have proven to be a sufficient barrier to entry.</p>

Key trends and movement	Risk management	Outlook
<p>Climate change – potentially resulting in higher than expected weather-related claims (including business continuity claims) and inaccurate pricing of general insurance risk, as well as adversely impacting economic growth and investment markets.</p> <p>Trend: Increasing</p> <p>Risks impacted: General insurance risk, Credit risk, Market risk</p>	<p>We are actively engaged in public policy debate on the risks and impacts of climate change to our business and customers. We use reinsurance to reduce the financial impact of catastrophic weather events. In the UK, our flood mapping analytics helps us identify properties most at risk and improve our risk selection. Our responsible investment strategy ensures climate change, as well as other environmental and social issues are integrated into our investment decisions. You can read more about the physical, transition and liability risks we face as an asset owner, insurer and asset manager in our 'Climate-related financial disclosure'.</p>	<p>Global average temperatures over the last five years have been the hottest on record. Despite the UNFCCC Paris agreement, the current trend of increasing CO₂e emissions is expected to continue with global temperatures likely to exceed pre-industrial levels by at least 2°C and weather events (floods, droughts, windstorms) increasing in frequency and severity. Disclosure of potential impacts against various climate scenarios and time horizons will become increasingly common for all companies.</p>
<p>Medical advances and healthier life styles – these contribute to an increase in life expectancy of our annuity customers and thus future payments over their lifetime may be higher than we currently expect.</p> <p>Trend: Decreasing</p> <p>Risks impacted: Life insurance risk (longevity)</p>	<p>We monitor our own experience carefully and analyse external population data to identify emerging trends. Detailed analysis of the factors that influence mortality informs our pricing and reserving policies. We add qualitative medical expert inputs to our statistical analysis and analyse factors influencing mortality and trends in mortality by cause of death. We also use longevity swaps to hedge some of the longevity risk from the Aviva Staff Pension Scheme and longevity reinsurance for bulk purchase annuities and guaranteed annuity options.</p>	<p>There is considerable uncertainty as to whether the improvements in life expectancy that has been experienced over the last 40 years will continue into the future. Despite continued medical advances emerging, dietary changes, increasing obesity and strains on public health services have begun to slow this trend, leading in the UK to some significant industry-wide longevity reserve releases in 2018, and in the longer term may even result in a reversal in the trend of increasing life expectancy.</p>
<p>Cyber crime – criminals may attempt to access our IT systems to steal or utilise company and customer data, or plant malware viruses, in order to access customer or company funds, and/or damage our reputation and brand.</p> <p>Trend: Increasing</p> <p>Risks impacted: Operational risk (fraud, business interruption)</p>	<p>We are not complacent. We continue to invest significantly in IT Security, introducing additional automated controls to protect our data, detect and prevent cyber-attacks. In addition to implementing secure development practices we employ our own 'white hat' hackers to regularly test our IT security defences. We undertake regular activities with our people to promote awareness of cyber and data security, including: employee phishing exercises, computer-based training and more regular communications about specific threats as they are identified.</p>	<p>In 2018 there continued to be several high profile cyber security incidents for corporates in the UK and elsewhere, and we expect this to further increase in 2019 as the multiple threat sources, including cyber criminals and rogue states, become ever more sophisticated and given the growing importance of digital automation in business strategy. We will continuously review the near-to-mid-term threat environment to ensure that our cyber investment remains appropriate to mitigate the continued and changing nature of the cyber threat.</p>
<p>Changes in customer behaviour – will impact how customers wish to interact with us and the product offering they expect, including the exercise of options embedded in contracts already sold by us.</p> <p>Trend: Stable</p> <p>Risks impacted: Operational risk (developing the right strategy, regulatory compliance)</p>	<p>Not only do we listen to our customers to ensure we meet their needs, we also seek to transform the customer experience through our digital strategy, creating an effortless customer experience. Our new vulnerable customer policy recognises the needs of our less digitally aware customers. For information on how we are mitigating this risk through the execution of Digital First and True Customer Composite strategies refer to 'Our strategy'.</p>	<p>We expect customers will be much more in control, expecting to self-service and self-solve. They will want to access data and insight and use it to guide their own decisions. However, we also expect regulatory scrutiny to increase to ensure we continue to serve and treat fairly our existing customers who are vulnerable and less digitally aware.</p>
<p>Outsourcing – we rely on a number of outsourcing providers for business processes, customer servicing, investment operations and IT support. The failure of a critical outsourcing provider could significantly disrupt our operations.</p> <p>Trend: Increasing</p> <p>Risks impacted: Operational risk</p>	<p>Our businesses are required to identify business critical outsourced functions (internal and external) and for each to have exit and termination plans and business continuity and disaster recovery plans in the event of supplier failure, which are reviewed annually. Business continuity and disaster recovery plans are subject to at least annual testing. We also carry out supplier financial stability reviews at least annually.</p>	<p>In 2018, the insolvency of Carillion, which was not a direct supplier of services to Aviva, and financial difficulties faced by other outsourcing providers, as well as customer service issues following the migration of our third party provided investment platform has brought added focus to this risk and we expect regulatory scrutiny of outsourcing arrangements to increase.</p>

Corporate responsibility

Defying uncertainty

Aviva's purpose to Defy Uncertainty means helping our customers look to the future with confidence. To do that we have to be a responsible, sustainable business so that we can help protect and improve the future for everyone.

Doing the right thing for our customers, our communities and the wider society we serve underpins the long-term growth of our business. We need a healthy planet, strong communities and a sustainable global economy so that we can all continue to thrive.

As a result we are committed to helping tackle some of the world's most pressing social and environmental challenges, from the implications of aging populations to climate change. We were particularly proud this year to receive the UN Foundation's leadership award in recognition of our work to support the UN's Sustainable Development Goals (SDGs).

Putting the customer at the centre of everything we do

It all starts with helping our 33 million customers protect what's important to them and save for the future. In 2018 we paid out £32.9 billion in benefits and claims around the world. We pay out 98%¹ of all claims. We are improving our digital technology to pay our customers more quickly and simplifying language so our customers can better understand what their policy covers. We have also enhanced our support for vulnerable customers.

Globally, we have 50 environmental and social products or services which enable our customers to be more environmentally responsible or gives them easier access to the protection they need for themselves and their families.

For example, the 'Build back better' programme in Canada uses 10% of the total loss to commercial property to upgrade the rebuild and ensure it is more resilient to prevent future losses. In Poland, we launched an anti-smog campaign and funded 300 external air quality sensors. Also in Poland, we extended our cover to include cancer treatments during the early stages of the illness. In the UK, we are working in partnership with a leading cancer charity to speed up the handling of critical illness claims for cancer patients from 60 days to just 24 hours.

During 2018, Aviva Ventures, our global capital investment business, invested in a number of start-ups that have a positive social impact such as Biofourmis, a personalised healthcare analytics platform that uses Artificial Intelligence and Machine Learning to predict health deterioration.

We work hard to offer great customer service and this is reflected in our NPS score® which measures the likelihood of our customers to recommend Aviva. Eight out of nine of our businesses are at or above the market average which is an increase on last year. We have renewed our strategic partnership with the British Red Cross (BRC) for a further two years. Through this partnership, we have trained our frontline service team in crisis response to better respond to our customers' personal emergencies (watch the video at <https://youtu.be/KRUDNSvmmfI>). As a result, those who received

the psychosocial training from the BRC secured a 6% uplift in customer satisfaction.

We know that we do not always get it right and we take any complaints and feedback we receive seriously and investigate them thoroughly. Our customer service commitment is reflected in the Customer Experience Business Standard all our markets abide by (see the policies section of www.aviva.com/social-purpose).

Making a difference in communities

The Aviva Community Fund (ACF) is now launched in ten markets and helps local communities on a range of issues from social inclusion and diversity to supporting small and medium enterprises (SMEs) and water sanitation.

In 2018, we increased our community investment by 47%, totalling £17.6 million (2017: £11.9 million), helping to benefit more than 1.5 million people and supporting over 3,000 local projects. We have now helped over 7,000 projects since 2015, exceeding our target of 5,000 projects by 2020. Aviva France is incorporating La Fabrique Aviva, their local version of ACF, into their Corporate and SME strategy, offering discounts on essential insurances needed by start-ups. ACF applications for funding in Canada are up almost 20%, with more than 800 high-quality powerful social purpose projects submitted.

Aviva's people continue to make a difference in communities around the world. Over 7,000 employees contributed more than 57,500 hours of volunteering time and gave or fundraised over £2.1 million.

In 2018, through the British Red Cross partnership, our #mapamillion campaign mapped buildings in North Indonesia following the devastating earthquake and tsunami. In 2018 we reached our goal of putting one million people on the map, ensuring future aid work can be channelled to the point of need.

The Community Reserve Volunteer project aims to register 10,000 volunteers by the end of 2019 to support their local communities in times of need. We have already signed up nearly 6,000 volunteers including customers and our people. In 2019, we will increase the impact of the Aviva Community Fund and BRC work across the world and aim to support over 2.5 million beneficiaries through our community activities by 2020.

Good governance and business ethics

We are committed to the highest standards of ethical behaviour as outlined by our Business Ethics Code. This underscores our commitment to operate responsibly and transparently. We require all our people, at every level, to read and sign-up to our Code every year (99% of our employees did so in 2018).

We have a zero-tolerance approach to acts of bribery and corruption and to manage this we have a risk management framework which sets policies and standards across all markets. These policies and standards apply to everyone at Aviva and it is the responsibility of CEOs (or equivalent) to ensure that their business operates in line with them.

The Financial Crime Business Standard guides our risk-based financial crime programmes. These seek to prevent, detect and report financial crime, including any instances of bribery and corruption, while complying fully with relevant legislation and regulation. We use risk-based training to ensure employees and others acting on Aviva's behalf know what is expected of them and how they should manage bribery and corruption risks.

¹ The percentage was calculated by dividing all paid and rejected claims by the total number of claims received between 1 January and 31 December 2017. The figure includes all insurance product lines across all our businesses and excludes benefits and pensions, which have a payout ratio of 100%. It also excludes invalid or incomplete claims, such as instances where claims were opened in error, abandoned or withdrawn by customers.

At a Group level, the Chief Risk Officer provides Aviva's Board Governance Committee with regular reporting on financial crime matters. These include Aviva's anti-bribery and anti-corruption programme.

Our malpractice helpline, Speak Up, makes it easy to report any concerns in confidence, with all reports referred to an independent investigation team. In 2018, 50 cases were reported through Speak Up (previously known as Right Call) (2017: 25), with zero related to bribery and corruption concerns. 37 cases reached conclusion, and 13 remain under investigation. There has been no material litigation arising from any case reported in 2018.

We conduct due diligence when recruiting and when engaging external partners. In 2018, 82% of Group and UK managed suppliers agreed to our Code of Behaviour (or had their own equivalent code of behaviour) which requires compliance with all applicable financial crime laws and regulations. In 2018, we engaged 95% of our managed suppliers on corporate responsibility issues (including modern slavery).

Our Board Governance Committee oversees our responsible and sustainable business strategy and the policies that underpin it. Aviva plc is subject to the UK Corporate Governance Code (the Code), which we aim to comply with fully.

Details of the Company's compliance with the Code can be found in the Directors' and Corporate Governance Report in the Annual report and accounts and online at www.aviva.com/investors/corporate-governance. The activities of the Board Governance Committee can be found in the Governance Committee Report in the Annual report and accounts.

We have assessed the environmental risks that we face as a business. The most significant of these is the potential impact of climate change on our customers' lives and our company's assets. More detail can be found in this report in the 'Risk and risk management' section and in 'Our climate-related financial disclosure' section below.

We also manage the risks associated with our community investment activities through the controls outlined in our overarching Corporate Responsibility Business Standard. This includes a governance framework for our charitable donations and partnerships and details of how we manage the risks associated with employee volunteering (for example, through safeguarding). This standard is reviewed each year and communicated to all Aviva businesses.

Caring more about human rights: Respecting human rights is the right thing to do and it makes commercial sense. We support initiatives such as the Corporate Human Rights Benchmark and participate in forums, such as the UK Home Office 'Business Against Slavery'.

Our human rights policy (www.aviva.com/content/dam/aviva-corporate/documents/socialpurpose/pdfs/policies-responses/20171025-Human-Rights-Policy-Final.pdf) identifies our main stakeholders as well as the most salient human rights issues for our business. The scope of this policy is group-wide and sets out the Group's commitment to respect human rights.

Our approach to modern slavery is part our overall approach to human rights. In 2018, we:

- Expanded the scope of our work to include Canada, Poland, Ireland, France, Italy and Singapore. Procurement teams, company secretaries, and corporate responsibility representatives from these markets were briefed on our responsibilities regarding modern slavery. We engaged our key suppliers in these markets covering areas such as diversity and inclusion, awareness of the

Sustainable Development Goals (SDGs), human rights and modern slavery issues

- Completed modern slavery threat assessments on eight suppliers to include a review of recruitment processes, policies and procedures. These assessments were carried out with two suppliers in Singapore, two in Poland, and four in the UK across the following services: car valeting, cleaning, media production and digitisation
- Collaborated with the UN Global Compact as part of the UK working group on modern slavery (which brings together peers from across different industry sectors to share information to support our work in tackling modern slavery). We peer-reviewed participants' modern slavery statements, received training and shared experiences from within civil society and government organisations
- Contributed to the review of the Modern Slavery Act (MSA) 2015 commissioned by the UK Government to strengthen and enhance the current legislation. We participated in a number of high level forums in 2018, including a workshop organised by the Home Office and the Modern Slavery Review Secretariat 2015. Our Group Company Secretary also participated in the UN Forum on Business and Human Rights in Geneva to discuss due diligence, emerging practice and challenges to accelerate progress and support survivors.

We have adopted the following performance indicators to track Aviva's impact on preventing modern slavery issues.

	2018
Number of cases of modern slavery discovered at Aviva or in our supply chain	—
Number of risk of modern slavery assessments conducted on suppliers	8

From 2019, we will also report on two additional KPIs: % of supplier and contract owners in Aviva that have received training on modern slavery during the year and number of suppliers engaged by Aviva that declare they have improved their management of MSA risks as a result of this engagement¹.

For our complete modern slavery statement, please see: www.aviva.com/modernslavystatement

Towards a more sustainable future

Responsible investment is central to the way we deliver on Aviva's values to care more and create legacy. We use Environmental, Social and Governance (ESG) insight to re-orientate capital away from short-term thinking and actively promote good practice among the companies in which we invest. We aim to identify and reduce ESG risks in our portfolios by understanding the quality of the Board of directors of a company and its strategy on issues, such as climate change, human rights or the Living Wage. This helps us gauge how well prepared they are to deal with current or emerging ESG issues.

We believe the UN Sustainable Development Goals (SDGs) can guide us, our customers and society towards a brighter, more sustainable future. In September 2018 Aviva launched the World Benchmarking Alliance, along with the Index Initiative and the United Nations Foundation. The Alliance will establish public, transparent and authoritative league tables, ranking companies on their contribution to the SDGs. The first set of benchmarks will be published in 2020 and will address food and agriculture, climate and energy, digital inclusion and gender equality and empowerment. The alliance is supported by the Governments of the UK, the Netherlands and Denmark and was named as one of the 10 winning initiatives at the November 2018 Paris Peace Forum.

¹ Includes assessments, training, and other meaningful engagement with suppliers

We continue to engage with a range of governments and wider stakeholders worldwide, to drive market reform. This work included co-convening a Finance Summit in July with HRH the Prince of Wales at St James' Palace and participating in the G20 Investor Summit in Buenos Aires.

In 2014 Aviva France launched Aviva Impact Investing France. It became the first financial institution in the country to create an investment fund dedicated to financing socially and environmentally responsible companies. This fund is now endowed with €30 million and has invested in 48 enterprises. At the 7th edition of the 'Instil Invest Crowns' Aviva France was awarded 'Best Initiative in Impact Investing' in the 'Major Themes' category. This reward recognises that investments can create social good as well as healthy financial earnings.

We use our role as responsible shareholders to engage on issues such as Anti Microbial Resistance (AMR) and climate change. We worked with our investee companies, predominantly in the pharmaceutical and food sectors, to develop a robust policy on AMR and phase out antibiotic use across their supply chains. We also fulfilled the Chairman's promise made at the AGM, working with other investors, to engage with the Polish coal mining sector on climate risk and the need for greater transparency and disclosure.

As a further example of our commitment to the environment, Aviva Investors became one of the largest shareholders in DS Smith, a disruptor in the packaging and recycling industry with the majority of their packaging materials now coming from recovered resources, contributing to a reduction in waste to landfill. Aviva's operations in the UK continue to uphold our zero to landfill commitment which we achieved in 2015. In 2018 we pledged to avoid single-use plastics in all our sites which has resulted in a 50-tonne reduction in waste per year.

Our investments also support the transition to a low-carbon economy (see below for more details). In 2018, Aviva assigned £1.8 billion of new investment in wind, solar, biomass and energy efficiency. We also set an associated carbon savings target for this investment of 100,000 tonnes of CO₂e annually. Aviva also hold nearly £1.3 billion in green bonds to support the transition to a low-carbon economy.

Leading by example on our own sustainability record

As the first financial services company to be a carbon neutral company we continue to offset 100% of any remaining carbon emissions. Our offsetting projects have helped over one million people since 2012 live better lives (e.g. through provision of clean cook-stoves in Kenya, providing safe water, improving health, creating jobs and stimulating local economies).

We continue to manage the impact of our business on the environment. Our Corporate Responsibility, Environment and Climate change business standard focuses on the most material operational environmental impacts, which we have identified as greenhouse gas emissions. We report these as carbon dioxide equivalent emissions (CO₂e) on an operational basis in respect of Aviva's Group-wide operations. See the table below.

For example, in 2017 our Canadian head office moved into a Gold LEED certified building and in 2018 we merged four other locations into one energy efficient office site. Over 1,800 employees were merged into the new office space reducing our operational footprint (square footage) by 25%.

To date globally we have achieved a 60% reduction in CO₂e against our 2010 baseline, meeting our 2020 target (of 50%) early. We continue to work towards our ambitious long-term target of a 70% reduction by 2030. Under the Carbon Reduction Commitment Energy Efficiency Scheme, we reported total emissions of 82,278 tonnes of CO₂e in 2018 costing £1.4 million. This mandatory scheme is limited to UK business emissions from building energy, and

includes the property portfolio of our investment funds managed by Aviva Investors.

Across the UK more than 400 employees have signed up to our car share programme and there are 180 active car-sharing groups. We have also introduced electric vehicle charging points at eight UK locations and moved 30% of our car fleet to hybrid. In the past year this has helped save 4,257 kg of CO₂ emissions.

In addition to the car share, we have been granted planning permission to install a car park solar system at our Horizon building in Norwich. This will be the first of its kind anywhere in the UK and will make Horizon energy self-sufficient when the sun is shining. The array will be made up of 1,908 solar panels which will generate 528,148 kWh per year. The Horizon building will consume 68% of this clean energy and will export the remainder into the national grid. The annual carbon emissions saved will be around 232 tonnes per annum. Last year, Aviva Investors made a £400 million investment to help fund the construction of what will be the world's largest offshore windfarm (www.avivainvestors.com/en-gb/about/company-news/2018/11/aviva-investors-finances-construction-of-hornsea-1).

More details of our environmental KPI data and our independent assurance process can be found at www.aviva.com/CRkpisandassurance2018

Operational global greenhouse gas emissions data boundaries

Our carbon footprint boundaries show the scope of the data we monitor and the emissions we offset. We report on Greenhouse Gas (GHG) emission sources on a carbon dioxide emissions equivalents basis (CO₂e) as required under the Companies Act 2006 (Strategic report and Directors' reports) 2013 Regulations. We also refer to the GHG Protocol Corporate Accounting and Reporting Standard, and emission factors from the UK Government's GHG Conversion Factors for Company Reporting 2018. The table below shows the absolute operational carbon emissions:

Tonnes CO ₂ e	2018	2017	2016
Scope 1	16,198	17,915	19,210
Scope 2	25,012	31,280	41,008
Scope 3	17,739	19,305	19,193
Absolute CO ₂ e*	58,949	68,500	79,410
Carbon offsetting**	(58,949)	(68,500)	(79,410)
Total net emissions	—	—	—

Scope 1 – natural gas, fugitive emissions (leakage of gases from air conditioning and refrigeration systems), oil, and company owned cars.

Scope 2 – electricity.

Scope 3 – business travel and grey fleet (private cars used for business), waste and water.

The following table shows the carbon intensity of our operations:

	CO ₂ e tonnes per employee	CO ₂ e per £m GWP
2018	1.6	2.06
2017	1.6	2.48
2016	2.0	3.12

* 2018 Assurance provided by PricewaterhouseCoopers LLP available at www.aviva.com/CRkpisandassurance2018

** Carbon offsetting through the acquisition and surrender of emissions units on the voluntary and compliance markets.

Corporate responsibility (CR) key performance indicators (including 2016-2018 figures) and the accompanying limited assurance statement by PwC can be found on www.aviva.com/social-purpose, alongside Aviva's 2018 CR Summary and Environmental, Social and Governance Data sheet. More details of our internal diversity, inclusion and wellbeing approach can be found in the 'Our People' section of this report.

[Our climate-related financial disclosure](#)

Our climate-related financial disclosure

As an international insurance group¹, our sustainability and financial strength is underpinned by an effective risk management framework. Our business is directly impacted by the effects of climate change. Aviva believes that unmitigated climate-related risks present a systemic threat to financial stability over the coming decades.

We have reported on climate change in our Annual Report and Accounts since 2004. Our 2018 disclosure reflects Aviva's response to the recommendations of the Taskforce on Climate-related Financial Disclosures, published in June 2017, and reflects our multiple roles as an asset owner, an insurer and an asset manager. This response sets out how Aviva incorporates climate-related risks and opportunities into our governance, strategy, risk management, metrics and targets and how we disclose our exposure. These pages, along with the expanded version of our response, are available at www.aviva.com/TCFD.

Governance

Acknowledging the increasing impact of climate-related changes, Aviva has built a strong system of governance, with effective and robust controls. Aviva's Chief Risk Officer and Group General Counsel and Company Secretary are the executive sponsors overseeing this disclosure. However, other group executives and local markets are responsible for managing specific areas of the business which may impact or be impacted by climate change: insurance, asset management, operations and finance.

At Board level, the Board Risk Committee and Board Governance Committee oversee our management of climate-related risks and opportunities.

- **The Board Risk Committee** met 5 times in 2018 to review, manage and monitor all aspects of risk management, including climate-related risks. Climate change is classified as an emerging risk and it is assessed for its proximity and significance to Aviva as part of our emerging risk processes.
- **The Board Governance Committee** met 4 times in 2018 to oversee how Aviva meets its corporate and societal obligations and formally considered Aviva's strategic approach to climate change during the year. This includes setting the guidance, direction and policies for Aviva's customer and corporate responsibility agenda and advising the Board and management.

In December 2018, as part of our regular training programme, Aviva's climate-related risks and opportunities were presented to the Board. The Board will use this training to give appropriate direction to the Company and ensure actions are taken to identify, measure, manage, monitor and report these risks and opportunities.

Strategy

This response focuses on the key climate-related risk factors and related opportunities (i.e. physical, transition, and liability) described in the Prudential Regulation Authority 2015 report². The materiality and horizons over which these risks and opportunities impact our business depend on the specific insurance products, geographies and investments being considered or decisions being made.

For example, our general insurance business considers risks in the underwriting and pricing processes and setting the reinsurance strategy based on a relatively short time horizon (one to three years). Aviva recognises that the increased severity and frequency of weather-related losses has the potential to negatively impact our profitability. Consequently, large catastrophic losses are already explicitly considered in our economic capital modelling to ensure resilience to such catastrophic scenarios.

In contrast, when developing our new product strategy and updating Aviva's overall business plan, the impacts of these risks need to be considered over the medium term (three to five years). With respect to life and pensions, when setting premium rates and reserves for annuities in payment as well as our investment strategy to back those insurance liabilities, the impacts of these risks need to be considered over a much longer time horizon (five years plus).

In our Strategic Response to Climate Change, published in 2015, we have focused on five pillars:

- **Integrating climate risk into investment considerations** – Aviva committed in 2012 to integrate Environmental, Social and Governance factors across all asset classes and regions, to deliver long-term sustainable and superior investment outcomes for our customers
- **Investment in lower carbon infrastructure** – Aviva announced in 2015 an investment target of £500 million annually for the next five years in lower carbon infrastructure
- **Supporting strong policy action** – Aviva continues to provide strong and vocal support for capital market reform, to mobilise the trillions of pounds required to transition to a low carbon economy and properly correct existing market failures with respect to climate change
- **Active stewardship on climate risk** – Aviva actively engages with companies to achieve climate resilient business strategies
- **Divestment where necessary** – Aviva aims to use our shareholder influence to encourage companies to transition to a low carbon economy and divest highly carbon-intensive fossil fuel companies where they are not making sufficient progress towards the engagement goals set.

Alongside this strategic investment response, Aviva has continued to further integrate consideration of climate-related risks and opportunities into our insurance products. For example:

- **GI reinsurance** is now set on an annual aggregate basis and on a per occurrence basis, taking into account the possibility of extreme weather events
- **Our exposure to flood risk** for UK residential customers is managed by ceding policies to FloodRe
- Promote **customer awareness** and risk prevention measures of climate-related issues such as air pollution. For example, Aviva Poland has installed air monitors in local communities to enable their customers to access up to date information about air pollution levels on their smartphones.
- **Help customers to build resilience** to extreme weather such as the upgrade to Commercial Property Insurance in Canada which provides a 'build back better' element
- Provide **products and services that support customers' choices** to reduce their environmental impact, such as bespoke electric vehicle policies and supporting the sharing economy
- **Limit our exposure** to underwriting the most carbon intensive elements of the economy through restrictions in the terms of our Group Underwriting Boundaries for sectors such as mining and power generation. In line with our commitments to manage climate change, Aviva's Global Corporate and Specialty team has announced an immediate move away from insuring fossil fuel power production to renewable energy generation in the UK.

¹ Aviva is an asset owner with assets under management to the value of £470 billion, an insurer with gross written premiums of £28.7 billion, and Aviva Investors has assets under management of £331 billion.

² www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/publication/impact-of-climate-change-on-the-uk-insurance-sector.pdf

Our climate-related financial disclosure > [Continued](#)

Aviva continues to deliver in all areas of our current climate change strategy. However, in the light of the latest Intergovernmental Panel on Climate Change (IPCC) report¹ and the risk of climate tipping points being reached that could cause runaway warming, as well as the findings from our internal analysis of potential climate change impacts, our strategy is being refreshed to accelerate our ambition to be aligned to a 2°C (or lower) transition.

Risk management

Rigorous and consistent risk management is embedded across Aviva through our Risk Management Framework, comprising our systems of governance, risk management processes and risk appetite framework. This framework sets out how Aviva identifies, measures, manages, monitors and reports on the risks to which it is, or could be, exposed (including climate-related risks). It also defines the accountabilities of management, the risk function and internal audit with respect to enterprise-wide risk management.

Aviva considers climate change to be a material long-term risk to our business model, and a proximate risk, because its impacts are already being felt. We are therefore taking action now to mitigate and manage the impacts of climate change both today and in the future. Through these actions, Aviva continues to build resilience to climate-related transition, physical and liability risks.

In conjunction with the United Nations Environment Programme Finance Initiative (UNEP FI), Aviva has developed models and scenario analysis tools to assess the potential impact on our business of the four IPCC scenarios. Outputs include financial metrics such as direct/indirect emission costs, additional capital expenditure, and revenue implications broken down by sector and geography. Each scenario describes a potential trajectory for future levels of greenhouse gases and other air pollutants and can be mapped to likely temperature rises (levels of mitigation required): 1.5°C (emissions halved by 2050), 2°C (emissions stabilise at half today's levels by 2060), 3°C (emissions rise to 2080 then fall) and 4°C (emissions continue rising at current rates).

To assess the impact of climate change on our business, Aviva is calculating a Climate Value-at-Risk (Climate VaR) from the model outputs for each IPCC scenario to assess the climate-related risks and opportunities over the next 15 years with the ability to look at shorter time periods (three to five years) where appropriate. A range of different financial indicators are used to assess the impact on our investments and insurance liabilities. These impacts are aggregated together to determine the overall impact of climate-related risks and opportunities across all scenarios by assigning relative likelihoods or probabilities to each scenario.

The Climate VaR includes the financial impact of **transition** risks and opportunities. This covers the projected costs of policy action related to limiting greenhouse gas emissions as well as projected profit from green revenues arising from developing new technologies and patents. In addition, it captures the financial impact of **physical** risks from extreme weather (e.g. flood, windstorm and wildfires) as well as the impact of rising sea levels and mean temperatures, although we recognise that the most extreme physical effects may only be felt in the second half of the century. Aviva also recognises the growing trend in climate-related litigation and has assessed its potential exposure to **litigation** risks accordingly.

Metrics and targets

In addition to Climate VaR, Aviva uses a variety of other metrics to manage, monitor and report its alignment with global or national targets on climate change mitigation and the associated potential financial impact on our business. These are covered below.

We **use carbon foot-printing** and weighted average carbon intensity data (tCO₂e/£m sales) to assess and manage the exposure of our assets to a potential increase in carbon prices. In addition, we measure our operational carbon emissions and we have already reduced our emissions by 60% since 2010 and have a long-term reduction target of 70% by 2030 compared to this baseline. In 2018, Aviva was recognised as one of 20 companies that reported 100% of their Scope 1² emissions. These figures can be found in the expanded version of this report (www.aviva.com/social-purpose/policies).

We divest where necessary. To date we have divested Aviva's own assets from 17 thermal coal mining and power generation companies from the Coal 40³. In addition in 2018, we were asked by Urgewald, an environmental and human rights non-governmental organisation (NGO), to review our holdings against their CoalExit list of 120 coal companies. Aviva actively-manages positions within our beneficial holdings in 15 of these companies with a total market value of £415 million or 0.09% of our total assets. Ten of the 120 companies on the list are companies that we have put on our investment stoplist. More details of this engagement can be found on www.aviva.com/social-purpose.

Aviva is also committed to investing in **lower carbon infrastructure**, amounting to £2.5 billion in the period between 2015-2020, with the intention of delivering 100,000 tonnes of CO₂ savings per year. Aviva currently holds more than £4.3 billion of green assets, including £3.1 billion in low carbon infrastructure investments (mainly solar, wind and waste-to-heat biomass) and £1.3 billion in green bonds.

Aviva has used Carbon Delta's **warming potential** metric to assess our corporate bond and equity holdings' alignment with the Paris agreement 2°C target. This warming potential methodology captures investments' Scope 1² emissions as well as investments in low-carbon technology to provide a forward-looking perspective. We plan to extend this analysis to our whole portfolio over time.

Aviva has used Notre-Dame University's Notre Dame-Global Adaptation Index measure for country climate change risk to assess the physical risk profile of **Sovereign holdings**. This measure considers exposure and vulnerability to climate change; readiness and adaptation; ability to raise money for mitigation and post-disaster repair; ability to raise money via taxation and debt; reliance on foreign aid and support of the International Monetary Fund and other supra-national bodies.

Aviva uses the **Global Real Estate Sustainability Benchmark** to understand climate resilience and broader sustainability performance of individual properties and real estate funds within our investment portfolio. In 2018, we assessed the performance of 18 property funds and Aviva Investors have achieved 32 green stars. Whilst three funds have improved their performance over the year, the remaining fifteen recorded a small reduction in their overall score. This is because the benchmark is designed to encourage continual improvement in the entities that it is assessing, and as such the scoring methodology becomes more challenging each year. We will continue to work in new areas to maintain and improve our scores.

We build the possibility of **extreme weather events** into our planning to ensure our pricing is adequate. Catastrophic event model results are supplemented by in-house disaster scenarios. We have purchased property catastrophe protection up to a 1-in-250-year return period or beyond that limits Aviva's losses depending on the territory to a relatively low retention level (£150 million on a per occurrence basis and £175 million on an annual aggregate basis).

¹ www.ipcc.ch/sr15/

² Scope 1 emissions cover: natural gas, fugitive emissions, oil and company owned cars

³ Coal 40 – 40 thermal coal mining and power generation companies selected from Aviva's beneficial holdings for targeted engagement in an effort to influence the transition to a lower carbon economy

Governance

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Chairman's Governance Letter

Our governance

Good governance is the foundation of what we do at Aviva. It underpins our values, our culture and the way we operate our businesses. Without good governance, we would be unable to deliver on our core purpose to help our customers 'Defy Uncertainty.'

In July 2018 the Financial Reporting Council introduced a revised UK Corporate Governance Code. The revised Code emphasises the requirement for boards to adopt a longer-term time horizon when considering issues and making decisions. Our company has been operating successfully for more than three hundred years because we understand the importance of long-term thinking, and the Board will continue to govern the Company in this way.

The revised Code also places emphasis on the role the Board plays in creating a positive, responsible and responsive culture and we welcome the importance the new Code affords to workforce engagement and the representation of the employee voice in the boardroom. We have a wide range of processes and mechanisms that speak to this requirement and are particularly proud of the ongoing dialogue between board members and the Evolution Council (a diverse group of high calibre leaders from across the business), and Your Forum, a broad-based body which represents UK and European employees and includes trade union representatives. A description of our stakeholder engagement activities appear later in this report.

Our Preference shareholders

There were challenges of our own making during the year, including our announcement in March 2018 that we were "evaluating alternatives" for the Aviva plc and General Accident plc preference shares. While we responded quickly to certain investor concerns by confirming we would take no action, and put in place a goodwill payments scheme for eligible preference shareholders who incurred losses from selling these securities during the period, it was a disappointing episode and lessons have been learned.

Our external environment

We constantly strive to make sure that our approach to risk management is effective, extending beyond financial risk to a wider range of operational risks. There is a full report on our activities in this area in our 'Risk and risk management report.' We have worked hard to ensure that Aviva is appropriately positioned for all eventualities in relation to Brexit. The political climate in the UK is possibly the most uncertain it has been for several decades, and we have factored that uncertainty into our Board discussions and specifically into determining how we can best position our business to continue providing excellent service to all our customers. The range of outcomes on Brexit, and the consequences of the final decision, will continue to be a focus for the Board during our strategic discussions in 2019.

The Board also remains committed to ensuring that Aviva operates as a responsible corporate citizen, and we have taken steps to minimise our impact on the environment wherever we operate. This includes our commitment to avoid the use of single use plastics in our offices. We also see it as a vital part of our wider corporate purpose to support organisations such as the Red Cross, providing funds and volunteers to help victims of natural disasters and other emergencies both in the UK and globally (see our 'Corporate responsibility' report for more detail). In uncertain times our core purpose to 'Defy Uncertainty' is more pertinent and more important than ever.

During 2018 we have created the Aviva Foundation. Its goals are to promote financial capability and inclusion, develop community resilience and enable sustainable finance. To support the Foundation we have released dormant assets held on our share register for a minimum of twelve years. This is an ongoing programme, and I look forward to being able to provide further updates on the achievements of the Foundation.

Changes to the Board

On 9 October 2018, Mark Wilson stepped down as Group CEO of Aviva and I became Executive Chairman whilst the search for a new CEO was underway. We were pleased to be able to interview a number of excellent internal and external candidates for the position in a thorough and highly competitive process. In this task, we were guided by the recommendations of our Nomination Committee who ensured that there was a diverse selection of candidates and that all the candidates aligned with the culture and value set of the company. This process led to a unanimous conclusion with the appointment of Maurice Tulloch as Group Chief Executive on 4 March 2019.

Maurice is appointed at a time of great challenge but also of great possibility, and we look forward to the future under his leadership with confidence and excitement.

Maurice joined Aviva in 1992 and was appointed to the Board of Aviva plc in June 2017. Maurice was previously Aviva's Chief Executive Officer, International Insurance. Maurice had responsibility for Aviva's life insurance and general insurance operations in France, Canada, Ireland, Italy, Poland, Turkey and India. Prior to that Maurice was Chief Executive Officer of Aviva UK and Ireland General Insurance, one of the largest businesses in the Aviva group.

Following the appointment of Maurice as Group CEO, I returned to my previous role of Non-Executive Chairman.

We announced in January 2019 that, following nine years on the Board, Michael Hawker would retire from the Board as a Non-Executive Director, and as Chairman of the Risk Committee and as a member of the Audit and Nomination Committees with effect from 31 March 2019. Michael has brought to the Board a wealth of knowledge and experience gained over a long career in the banking and insurance industries in both executive and non-executive roles in Europe, Asia and Australia, and was a distinguished Chairman of the Risk Committee. I would like to thank him for the enormous contribution he has made to Aviva. The appointment of the new Risk Committee Chair is well advanced, and will be announced following completion of the relevant regulatory approval process.

Board and Group Executive diversity

The charts below illustrate the diversity of the Board and senior management as at the date of this report.

Composition	Board of Directors		Group Executive
	Non-Executive	Executive	
Total	8	3	9
Gender			
Male	5	3	6
Female	3	—	3
Experience and Skills¹			
Insurance	7	3	8
Banking	6	3	6
Actuarial	6	3	5
Transformation	8	3	3
Law	6	3	3
Government	7	2	1
Customer	8	3	5
IT/Digital	8	2	1
Strategy	8	3	6
International experience¹			
Europe	8	3	8
Asia Pacific	3	1	2
The Americas	1	2	3
Middle East & Africa	1	—	1
Tenure			
>10 years	—	—	—
5-10 years	5	—	4
4 years	—	1	2
3 years	2	1	2
2 years	1	—	—
1 year	—	1	—
<1 year	—	—	1
Age			
30-39	—	—	—
40-49	1	—	1
50-59	3	3	7
60+	4	—	1

¹ Individual directors may fall into one or more categories

Diversity remains an important area of focus, with the revised Code stressing the importance of diversity in creating a successful and sustainable business. The Board and I are committed to improving diversity in its widest sense, including gender, ethnicity, diversity of thought, tenure, age, experience, skills, geographical expertise, educational and professional background.

We continue to support the target for women to represent a minimum of 33% of our Board, and a minimum of 33% of Executive Committee members and direct reports, by 2020. As at the date of this report the percentage of women on the Board is 27%. Female representation on our Group Executive stands at 33%.

I am proud to be an active member of the FTSE 100 30% Club and that we are part of the Future Boards Scheme. Our Board Diversity and Inclusion Statement was published in May 2017 and reflects the continued support for the diversity and inclusiveness programme throughout the business. You can find the statement on our website at www.aviva.com/corporate-governance.

Future appointments to the Board and Group Executive will be made in line with the Board Diversity and Inclusion Statement, and for the Group Executive to be consistent with our Global Inclusive Diversity Strategy, which is described in the Directors' and corporate governance report.

Sir Adrian Montague CBE

Chairman

6 March 2019

[Our Board of Directors: Biographies](#)

Our Board of Directors

Sir Adrian Montague, CBE ▲

Position: Chairman

Nationality: British

Committee Membership: Nomination Committee (Chair)

Tenure: 6 years 2 months. Appointed to the Board as a Non-Executive Director in January 2013, as Chairman in April 2015 and Executive Chairman from October 2018 to March 2019

Qualifications: MA, Law (Cambridge); Qualified Solicitor

Skills and Experience: In October 2018 Sir Adrian was asked by the Board to assume executive responsibilities during the search for, and transition period to, a new Group Chief Executive Officer. After the appointment of the new Group Chief Executive Officer, Sir Adrian reverted to the role of Non-Executive Chairman. Having held appointments as Chairman of Anglian Water Group Ltd, Friends Provident plc, British Energy Group plc, Michael Page International plc and Crossrail Ltd, Sir Adrian possesses a wealth of experience as a Chairman. He has extensive leadership skills, together with deep knowledge of the financial services industry, government affairs and regulatory matters. His diverse skill-set and strategic awareness facilitate open discussion and allow for constructive challenge in the boardroom.

External Appointments: Chairman of The Manchester Airports Group and Cadent Gas Ltd and trustee of the Commonwealth War Graves Foundation.

Maurice Tulloch ■

Position: Group Chief Executive Officer (CEO)

Nationality: British/Canadian

Committee Membership: N/A

Tenure: 1 year 9 months. Appointed to the Board as an Executive Director in June 2017 and as CEO in March 2019

Qualifications: Chartered Professional Accountant (CPA, CMA); Master's degree in Business Administration (MBA) (Heriot-Watt University, Edinburgh); BA Economics (University of Waterloo, Ontario)

Skills and Experience: Maurice has more than 25 years' experience within Aviva and most recently held the role of CEO of International Insurance. Maurice had responsibility for Aviva's life insurance and general insurance operations in France, Canada, Ireland, Italy, Poland, Turkey and India, together with our Global Corporate and Speciality (GCS) business. He brings deep expertise of general insurance and the Group's International businesses into the Boardroom.

External Appointments: Non-Executive Director of Pool Reinsurance Company Ltd and a member of the Insurance Development Forum.

Thomas Stoddard ■

Position: Chief Financial Officer

Nationality: American

Committee Membership: N/A

Tenure: 4 years 11 months. Appointed to the Board and as Chief Financial Officer in April 2014

Qualifications: BA Economics (Swarthmore College); Juris Doctor (University of Chicago Law School)

Skills and Experience: Tom's financial expertise and strategic decision-making skills play a fundamental role in driving Aviva to attain its financial goals. As a result of Tom's work Aviva has strengthened its financial position and now has sufficient financial flexibility to withstand stress and invest in opportunity. Prior to joining Aviva, Tom worked in senior positions as an investment banker in highly respected US firms, including Blackstone Advisory Partners LP, where he was responsible for successfully driving Blackstone's business advising banks, insurers and other financial institutions globally.

External Appointments: N/A.

Andy Briggs ■

Position: Chief Executive Officer, UK Insurance

Nationality: British

Committee Membership: N/A

Tenure: 3 years 11 months. Appointed to the Board as Executive Director in April 2015

Qualifications: Fellow of the Institute of Actuaries

Skills and Experience: Andy is the CEO of UK Insurance and is responsible for all Aviva's insurance businesses in the UK. Previously CEO of the Friends Life business, Andy's knowledge and experience of the UK insurance sector is invaluable to the Board. His role as Senior Independent Director, and previously Chairman, of the Association of British Insurers gives him a unique perspective of the UK insurance industry and regulatory environment.

External Appointments: Chairman of the NSPCC's Fundraising Committee and a member of the Board of Trustees and Senior Independent Director of the Association of British Insurers. Andy is also the Government's Business Champion for Older Workers.

Claudia Arney ▲

Position: Independent Non-Executive Director

Nationality: British

Committee Membership: Governance Committee (Chair), Nomination Committee, Remuneration Committee, Risk Committee

Tenure: 3 years 1 month. Appointed to the Board in February 2016

Qualifications: MBA (INSEAD)

Skills and Experience: Claudia has significant experience of building digital businesses, strategy formulation, business transformation and customer strategy. Claudia previously worked for the Financial Times, where she was part of the team that launched FT.com. In addition, Claudia acted as CEO of the internet start up, TheStreet.co.uk.

External Appointments: Non-Executive Director of Kingfisher plc, Derwent London plc, Halfords Group plc (until 1 March 2019) and the Premier League.

Glyn Barker ▲

Position: Senior Independent Non-Executive Director

Nationality: British

Committee Membership: Audit Committee, Nomination Committee, Risk Committee, Governance Committee, Remuneration Committee

Tenure: 7 years 1 month. Appointed to the Board in February 2012 and became Senior Independent Non-Executive Director in May 2017

Qualifications: Member of the Institute of Chartered Accountants of England and Wales (ICAEW); BSc Economics and Accounting (Bristol University)

Skills and Experience: Glyn's knowledge of the Aviva Group and his in depth understanding of the issues that may affect shareholders and other stakeholders of the company provides him with the skills to fulfil the role of Senior Independent Director. His experience enables him to support the Chairman and the Board in driving the appropriate culture and values throughout the Company. Glyn was previously a Vice Chairman of PricewaterhouseCoopers LLP (PwC) and was responsible for leading the strategy and business development for Europe, the Middle East, Africa and India.

External Appointments: Chairman of Irwin Mitchell Holdings Ltd and Interserve plc, Senior Independent Non-Executive Director of Berkeley Group Holdings plc and Non-Executive Director of Transocean Ltd.

Our Board of Directors: Biographies > [Continued](#)

Patricia Cross ▲

Position: Independent Non-Executive Director

Nationality: Australian

Committee Membership: Remuneration Committee (Chair), Audit Committee, Nomination Committee

Tenure: 5 years 3 months. Appointed to the Board in December 2013

Qualifications: BSc (Hons), International Economics (Georgetown University); Life fellow of the Australian Institute of Company Directors

Skills and Experience: Patricia is an experienced company director with over 20 years' experience of serving on multiple ASX-30 Boards including Macquarie Group Ltd and Macquarie Bank Ltd, National Australia Bank, Wesfarmers Ltd, AMP Ltd, and Qantas Airways Ltd. She is the founding Chair of the 30% Club in Australia. Patricia has held a number of Australian government positions, including with the Financial Sector Advisory Council, Companies and Securities Advisory Committee, Panel of Experts to Australia as a Financial Centre Forum and Sydney APEC Business Advisory Council. Patricia has served on a wide range of not for profit boards, including the Murdoch Children's Research Institute, and she was a founding Director of The Grattan Institute. In 2001, Patricia received the Australian Centenary Medal for service to Australian society through the finance industry and was awarded Life Fellowship of the Australian Institute of Company Directors in 2018. Having started her career in the U.S. Government working in foreign affairs, Patricia had a long career in senior executive roles in very large international banking and investment management organisations. She has lived and worked in seven countries in Europe, the U.S. and Australia.

External Appointments: Chair of the Commonwealth Superannuation Corporation, and Ambassador for the Australian Indigenous Education Foundation.

Belén Romana García ▲

Position: Independent Non-Executive Director

Nationality: Spanish

Committee Membership: Governance Committee, Nomination Committee, Risk Committee

Tenure: 3 years 8 months. Appointed to the Board in June 2015

Qualifications: BSc, Business and Economics (Universidad Autonomo de Madrid)

Skills and Experience: Belén has extensive governmental and regulatory experience and a detailed knowledge of the financial services industry and European regulation and she brings this expertise to the Boardroom. Belén has held senior positions at the Spanish Treasury and represented the Spanish government at the Organisation for Economic Co-operation and Development.

External Appointments: Independent Non-Executive Director of Banco Santander.

Michael Hawker, AM* ▲

Position: Independent Non-Executive Director

Nationality: Australian

Committee Membership: Risk Committee (Chair), Audit Committee, Nomination Committee

Tenure: 9 years 2 months. Appointed to the Board in January 2010

Qualifications: BSc (University of Sydney); Senior Fellow of the Financial Services Institute of Australia

Skills and Experience: Michael brings to the Board broad experience from his career in both the banking and insurance industries within Europe, Asia and Australia, which included seven years as CEO of Australia's largest general insurer (IAG). Michael's tenure at Aviva makes him well placed to determine the nature and extent of the potential risks that could stop Aviva achieving its strategic objectives and maintaining sound risk management and internal controls.

External Appointments: Non-Executive Director of Macquarie Group Ltd, Macquarie Bank Ltd, Washington H Soul Pattinson Pty and Company Limited (an investment house) and Rugby World Cup Ltd. Michael is also Chairman of The George Institute for Global Health.

*Michael Hawker will retire from the Board with effect from 31 March 2019.

Michael Mire ▲

Position: Independent Non-Executive Director

Nationality: British

Committee Membership: Governance Committee, Nomination Committee, Remuneration Committee, Risk Committee

Tenure: 5 years 6 months. Appointed to the Board in September 2013

Qualifications: MBA, (Harvard)

Skills and Experience: Michael has a detailed understanding of the financial services sector and a wealth of experience in business transformation and developing strategies for retail and financial services companies, which alongside his governmental experience, allows Michael to bring a unique perspective and insight to the Board.

External Appointments: Chairman of HM Land Registry, Non-Executive Director of the Department of Health and Social Care, and senior adviser to Lazard.

Keith Williams ▲

Position: Independent Non-Executive Director

Nationality: British

Committee Membership: Audit Committee (Chair), Governance Committee, Nomination Committee, Risk Committee

Tenure: 2 years 7 months. Appointed to the Board in August 2016

Qualifications: Associate member of the Institute of Chartered Accountants (ICAEW)

Skills and Experience: Keith has significant financial experience including a detailed knowledge of business planning, capital projects and project finance gained in a number of industries. Keith has more than ten years of executive experience as CFO and CEO at British Airways plc until 2016 and, during that time, Keith transformed the company into a customer focused organisation.

External Appointments: Non-Executive Chairman of Halfords Group plc, Non-Executive Deputy Chairman of the John Lewis Partnership, Non-Executive Director of Royal Mail plc and member of the Audit Committee of the British Museum. Keith is also Independent Chair of the UK Transport Department's Rail Review.

Kirstine Cooper ◆

Position: Group General Counsel and Company Secretary

Nationality: British

Committee Membership: N/A

Tenure: 8 years 3 months. Appointed as Company Secretary in December 2010 and a member of the Group Executive in May 2012

Qualifications: Bachelor of Laws degree (Glasgow University); Qualified Solicitor; Graduate of the General Manager Programme (INSEAD)

Skills and Experience: Kirstine has over 25 years' experience at Aviva and is a trusted advisor to the Board. As a qualified solicitor Kirstine is able to execute the role of Company Secretary by advising the Board on governance issues and the regulatory environment. Kirstine established the legal and secretarial function as a global team and is responsible for the provision of legal services to the Group. She also leads the team on public policy and corporate responsibility. During March 2016 to March 2017, Kirstine was the Commissioner on the Cabinet Office's Dormant Assets Commission which was tasked with identifying new pools of dormant assets and working with industry to encourage the contribution of these assets to good causes.

External Appointments: Trustee of the Royal Opera House and Non-Executive Director of HM Land Registry. Kirstine is also Insurance and Pension champion for the Dormant Assets Commission.

The full biographies for all our Board and Group Executive committee members are available online at www.aviva.com/about-us

Key

■ Executive

▲ Non-Executive

◆ Group General Counsel and Company Secretary

Mark Wilson stepped down from the Board and as Chief Executive Officer of the Group on 9 October 2018 and will remain with the Group until April 2019.

[Directors' and Corporate Governance report](#)

Directors' and Corporate Governance report

The UK Corporate Governance Code

As a UK Premium Listed company, Aviva's governance structure is based on the principles of the 2016 UK Corporate Governance Code (2016 Code). Details of how we have applied the principles of the 2016 Code and complied with its provisions are set out in this report and the Directors' Remuneration Report. The Board can confirm that the Company was compliant with the 2016 Code throughout the financial year under review, with the exception of the interim change in status for Sir Adrian Montague from Non-Executive Chairman to Executive Chairman from 9 October 2018 until the appointment of Maurice Tulloch as our new Group Chief Executive Officer (Group CEO) on 4 March 2019. As a result, the company was non-compliant with Provision A.2.1 of the 2016 Code for this interim period. Further details of the role of the Executive Chairman are given below.

The Board welcomes the introduction of the 2018 UK Corporate Governance Code (2018 Code) which applies to the Company for its financial year beginning 1 January 2019. The Company will report on its compliance with the 2018 Code in the 2019 Annual report and accounts.

Changes to the Board

On 9 October 2018, Mark Wilson stepped down as the Group CEO. Sir Adrian Montague, the Non-Executive Chairman of Aviva, assumed the role of Executive Chairman whilst the search for a new Group CEO was undertaken. The Board considered a number of options for the interim leadership of the Group, and agreed that the appointment of the Chairman as Executive Chairman would provide continuity in the leadership of the Group and would support the transition of responsibilities to the new Group CEO. Whilst discharging these responsibilities, Sir Adrian led a Chairman's Committee comprised of the three executive directors, Andy Briggs (CEO, UK Insurance), Tom Stoddard (Chief Financial Officer) and Maurice Tulloch (CEO, International Insurance). Sir Adrian Montague reverted to the role of Non-Executive Chairman of Aviva upon appointment of the new Group CEO. These interim arrangements were discussed and agreed with our regulators.

The role profile for the position of Executive Chairman included arrangements for potential conflicts of interest in the execution of Sir Adrian's executive responsibilities within the company alongside his role as Chairman of the Board. The role profile for the Senior Independent Director, Glyn Barker, was also amended to include additional responsibilities around assisting Sir Adrian in his Chairman's role, and monitoring any issues around conflicts. No conflicts were identified in the discharge of the role of Executive Chairman. No additional remuneration was paid in respect of these additional responsibilities, as set out in the Directors' Remuneration Report, and there were no other changes in the terms of any other directors during this period.

The Nomination Committee led the process to appoint a new Group CEO and interviewed a number of excellent internal and external candidates for the position in a thorough and highly competitive process. The Nomination Committee ensured that there was a diverse selection of candidates and that all the candidates aligned

with the culture and values set of the company. This process led to a unanimous conclusion with the appointment of Maurice Tulloch as Group Chief Executive.

We announced in January that Michael Hawker will retire from the Board as a Non-Executive Director, as Chairman of the Risk Committee and as a member of the Audit and Nomination Committees, with effect from 31 March 2019. He has served as a Non-Executive Director since January 2010. We would like to thank Michael for his enormous contribution to Aviva over the past nine years. He has brought to the Board a wealth of knowledge and experience gained over a long career in the banking and insurance industries in both executive and non-executive roles in Europe, Asia and Australia, and has been a distinguished Chairman of the Risk Committee. The appointment of the new Risk Committee Chair is well advanced, and will be announced following the completion of the relevant regulatory approval process.

The Board

As at the date of this report the Board is comprised of the Chairman, three Executive Directors and seven Independent Non-Executive Directors (NEDs). As noted above Michael Hawker will be retiring from the Board and the committees he serves on 31 March 2019. Details of the role of the Board and its committees are described in this report. The duties of the Board and of each of its committees are set out in the respective Terms of Reference. Our committees' Terms of Reference can be found on the Company's website at www.aviva.com/committees and are also available on request from the Group Company Secretary. The Terms of Reference list both matters that are specifically reserved for decision by our Board and those matters that must be reported to it. The Board delegates clearly defined responsibilities to various committees and reports from the Audit, Governance, Nomination and Risk Committees are contained in this report. A report from the Remuneration Committee is included in the Directors' Remuneration Report.

Board diversity and inclusion

Diversity and inclusion are integral parts of Aviva's culture, and our Board seeks to reflect this. The Board agreed a Diversity and Inclusion Statement in May 2017 and this supports the Nomination Committee in its approach to succession planning, and was incorporated into the Committee's approach to identifying Maurice Tulloch as our new Group CEO. The statement sets out our beliefs around the importance of diversity and inclusion in the Group, and aligns with our Global Inclusive Diversity Strategy (Diversity Strategy). The Diversity and Inclusion Statement can be found on the Company's website at www.aviva.com/corporate-governance.

The approach to Board diversity is monitored by the Nomination Committee which reviews the balance of skills, knowledge, experience and diversity on the Board; leads on succession planning for appointments to the Board and the senior executive team; and oversees the talent development and broader talent pipeline across the Group. The Board's approach to NED succession planning was refreshed during the year to further enhance the periodic review of tenure, skills and capabilities, delivering a more continuous succession review cycle. The Board's skills matrix supports this approach by enabling us to map the broad diversity of skills, knowledge and experience of the Board and to link these to our strategy. The Nomination Committee continued to review the internal and external talent pipeline for senior executive positions, both for immediate readiness to take on roles, and for the medium term. This included making progress in the development programmes that supported the talent development pipeline.

We recognise that the Board sets the tone for inclusion and diversity across the Group and believe that a diverse leadership team supports good decision making. At Aviva, diversity encompasses a broad range of factors including experience, skills, tenure, age,

geographical expertise, professional background, ethnicity, disability and sexual orientation. As at the date of this report, the percentage of women Board members has increased to 27%. We continue to support our target of at least 33% women on the Board by 2020, as evidenced from our participation in initiatives such as the Women in Finance Charter and the 30% Club. The diversity charts in the Chairman's Governance Letter show that the Board has a broad mix of financial services experience, relevant professional skills and international business exposure.

Board activities during 2018

Board strategy and business plans

- Approved the 2019-2021 Group Plan and received presentations and reports from our businesses in respect of strategy execution and performance against the Group Plan
- Held an annual dedicated two day offsite strategy session in June 2018, supplemented by further specific strategy sessions, to review and further develop the Group's strategy
- Reviewed and constructively challenged reports from the Group CEO and CFO, proposals for significant transactions, changes in senior management, regulatory developments, the control environment, and progress against the Group Plan and the Group's strategy
- Discussed regular updates from the Chairman (or Executive Chairman when appointed) on Board matters for which he is responsible, such as Board composition

Stakeholder Engagement

- Customer
 - Received updates on customer metrics, strategies and challenged action plans to reduce customer complaints
 - Undertook deep dives into renewal pricing, customer experience journeys, and customer operations and transformation
 - Monitored customer reputation issues in relation to IT platform migrations
 - Discussed reports from the Governance Committee on customer conduct issues
- Shareholders
 - Considered the views of major shareholders on company strategy and performance, and assessed investor sentiment more broadly in conjunction with the Group's corporate brokers
 - Reviewed and agreed our investor relations strategy
- Government and regulators
 - Discussed and provided input into dialogue with regulatory and governmental authorities in the UK
 - Engaged with the regulatory authorities in our key markets
- Our people
 - Discussed reports from the Evolution Council on various matters including strategy, cyber risk and Aviva's products, and held several informal discussions with the Council

Oversight of risk and risk management

- Scrutinised reports from the Chief Risk Officer (CRO), and assessed the Group's significant risks and regulatory issues, approved the Group's risk appetite, approved the Group risk policies which provide the risk framework for managing risk across the Group, and received updates on the Group's capital and liquidity position
- Reviewed and discussed the strategy for the simplification and rationalisation of legacy IT systems
- Undertook regular reviews of the Group's cyber risk profile
- Discussed updates on the operational impact of Brexit on the company; considered and agreed a risk management approach to Brexit planning
- Monitored reports on the migration to a cloud based IT architecture

Corporate governance

- Discussed regular updates from Board committees and management on legislation and proposed consultations that will affect the Group's legal and regulatory obligations, including the 2018 Code
- Received assurance that governance structures remained appropriate for the businesses and the global markets in which we operate, while supporting the Group's overall strategy and culture
- Discussed and agreed strategies around the management of the Group's preference shares, and the subsequent goodwill payment programme launched in July 2018

Significant transactions and expenditure

- Approved financial matters in line with the Group Funding Plan, including a capital return to shareholders via a £600 million share buyback programme, the redemption of the €500 million Tier 2 debt instrument, and the redemption of US\$575 million perpetual subordinated loan notes issued by Friends Life Holdings plc (a Group subsidiary)
- Approved strategic M&A activities including the disposal of the Group's two Spanish joint ventures to Bankia, and the launch of a digital insurance joint venture in Hong Kong with Hillhouse Capital Group and Tencent Holdings Limited. Concluded the disposal of Aviva's shareholding in its joint venture in Italy, Avipop Assicurazioni S.p.A. to Banco BPM S.p.A. in March 2018

Financial reporting and controls, capital structure and dividend policy

- Monitored the Group's financial performance, financial results, and approved dividend payments
- Assessed the Group capital and liquidity requirements, arising from the Group's strategy and Group Plan
- Discussed reports provided by its committees on key matters of financial reporting, providing the opportunity for the Board to input and challenge where necessary
- Approved the full year results and Annual report and accounts, and the half year results

People, culture, succession planning and Board effectiveness

- Reviewed and discussed the succession plan for the Board, with particular emphasis on identifying Maurice Tulloch, our new Group CEO
- Undertook an external evaluation of the Board's effectiveness, the effectiveness of each committee and individual directors and implemented an action plan in accordance with its recommendations
- Reviewed the results of the 2018 Voice of Aviva survey, and discussed them in respect of culture
- Regularly discussed the current Group culture, its alignment with strategy, and how it has been further strengthened during the year
- Approved the new Board succession planning process

Board appointments

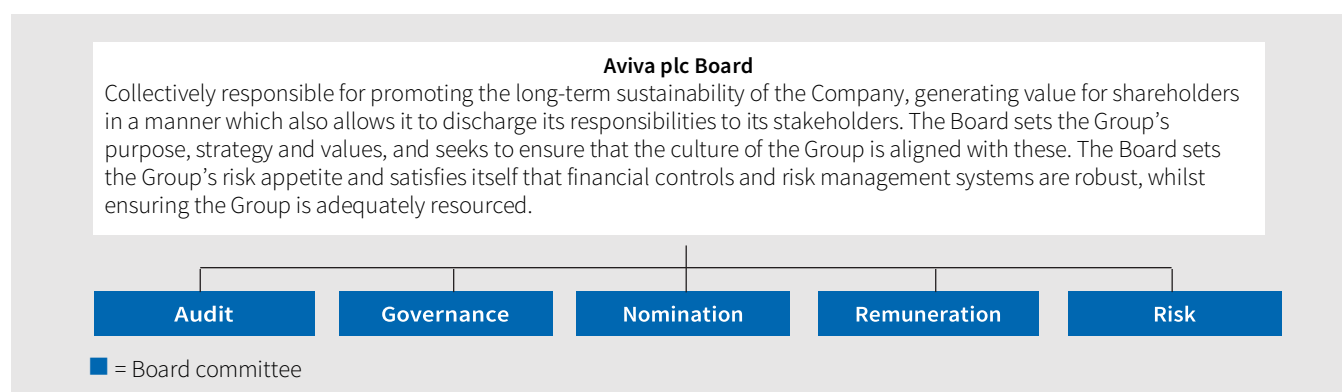
Maurice Tulloch was appointed as Group CEO on 4 March 2019. Maurice was appointed following an extensive search that produced a shortlist of exceptional external and internal candidates. Maurice brings a deep understanding of insurance, both general and life insurance, to the board. He is exceptionally well qualified to re-energise Aviva and deliver long term growth.

The Board has processes in place to appoint NEDs who can apply their wider business skills, knowledge and experience to the oversight of the Group, and provide input and challenge in the boardroom to assist in the development and execution of the Board's strategy. Similarly, Executive Director appointments are made to ensure the effective formulation and implementation of the Group's strategy. The Nomination Committee, on behalf of the Board, reviews the skills of Board members at least annually, identifying any areas of skills, experience and knowledge that we can further strengthen. All director appointments are made by the Board and are subject to a formal, rigorous, and transparent

process, and to the appropriate regulatory approvals. No new NED appointments were made during the year.

The Nomination Committee report sets out the process that would be adopted to identify and appoint new NEDs, which includes consideration of diversity criteria. The NEDs assist management in the development of the Group's strategy, so it is important that they have experience of strategy formulation, business planning and transformation. To be effective, it is the Board's view that the majority of our NEDs should also have a sound understanding of the financial services industry to be able to fully understand the strategic issues and opportunities the Company faces so that they can provide appropriate challenge. All Board appointments are also subject to continued satisfactory performance following the Board's annual effectiveness review, and the Company's articles of association (Articles), which prescribe that all serving directors will retire and stand for election or re-election at each Annual General Meeting (AGM).

Board and Committee structure



Board independence

The Nomination Committee, having considered the matter carefully, is of the opinion that the current NEDs remain independent, in line with the definition set out in the 2016 Code, and are free from any relationship or circumstances that could affect, or appear to affect, their independent judgement. Over half of the Board members, excluding the Chairman, are independent NEDs.

Michael Hawker has served as a director since his appointment in January 2010 and Glyn Barker since his appointment in February 2012. In accordance with Provision B.1.1 of the 2016 Code, the independence of Michael Hawker and Glyn Barker was subject to a particularly stringent review by the Nomination Committee. The review recognised Michael Hawker's deep knowledge of Aviva and his extensive operational experience of the insurance industry which he brings to his role as Chair of the Risk Committee and to the Board. Glyn's deep understanding of accounting and regulatory issues and his extensive experience as a business leader means he also continues to provide independent insight and challenge in the boardroom. After careful consideration, it was agreed that both Michael and Glyn remain independent and continue to make a valuable contribution to the Board. Michael Hawker will step down from the Board and its committees on 31 March 2019. The appointment of the new Risk Committee Chair is well advanced, and will be announced following the completion of the relevant regulatory approval process.

The review of the directors' other interests, examined the 'cross directorships' of Keith Williams and Claudia Arney who both sat on the Board of Halfords plc (Keith Williams is Non-Executive Chairman). The Nomination Committee was satisfied that the cross directorships did not impact the independence of either Claudia

Arney or Keith Williams or their ability to carry out their role as directors of the Company and Claudia Arney stepped down from the board of Halfords plc on 1 March 2019. The Nomination Committee also examined the cross directorships of Patricia Cross and Michael Hawker on the board of Macquarie Group and was satisfied that the cross directorships did not impact the independence of either Patricia Cross or Michael Hawker or their ability to carry out their role as directors of the Company. Patricia Cross stepped off the Macquarie Group Board during 2018. The Nomination Committee examined Glyn Barker's former position as a partner at the Group's current auditors and was satisfied this did not affect the judgement or independence of Glyn Barker as a director.

Time commitment

Each NED must be able to devote sufficient time to the role in order to discharge his or her responsibilities effectively. The Chairman assesses the time commitment of the NEDs as part of the annual review of their effectiveness, and the Senior Independent Director (SID) reviews the time commitment of the Chairman. This assessment takes into account the number of external commitments each director has and considers whether each director has demonstrated that they have sufficient time to devote to their present role within Aviva including under potential periods of corporate stress.

Prior to accepting the role of interim Executive Chairman, Sir Adrian discussed how he would discharge the role with the Executive and Non-Executive Directors, and also with our regulators. This included the creation of a Chairman's Committee, composed of the Executive Chairman and Executive Directors, to advise the Executive Chairman on the strategic, monitoring and control aspects of the day to day management of the Group. In addition the role of the

Senior Independent Director was expanded to ensure that any potential conflicts between the Chairman's role as Executive Chairman and Non-Executive Chairman were managed appropriately. The creation of the Chairman's Committee, an increased personal time commitment to Aviva, and the interim nature of the role, enabled Sir Adrian to effectively discharge the role of Executive Chairman.

According to the Board's policy, Executive Directors may hold one external directorship and must obtain the prior consent of the Board before accepting a non-executive directorship in any other company. During the year, this procedure was followed when former Group CEO Mark Wilson became a non-executive director of BlackRock, Inc. the US-based asset manager in March 2018. The time commitment and potential conflicts involved were carefully examined and the appointment was approved on the basis that exposure to BlackRock's businesses for Mark would be to the benefit of Aviva, particularly in terms of developing Mark's exposure to the priorities of strategic investors. In addition the potential conflicts could be adequately managed by the Chairman and Chief Financial Officer.

Conflicts of interest

In accordance with the Companies Act 2006, the Company's Articles of Association allow the Board to authorise potential conflicts of interest that may arise and to impose such limits or conditions as it thinks fit. The decision to authorise a conflict of interest can only be made by non-conflicted directors (those who have no interest in the matter being considered) and in making such a decision the directors must act in a way they consider, in good faith, will be most likely to promote the Company's success for the benefit of its shareholders as a whole.

The Board's procedure is to review and approve actual and potential conflicts of interest as they arise. This procedure operated effectively during the year, including the review of Mark Wilson's appointment as a Non-Executive Director of BlackRock, Inc. in March 2018, and the review of any potential conflicts resulting from Sir Adrian Montague's assumption of the Executive Chairman role in October 2018. In both cases, nothing was found to exist to prevent acceptance of these roles, with appropriate mitigation being put in place should any conflict arise which would include being recused from certain discussions that could give rise to a conflict.

Independent advice

All directors have access to the advice and services of the Group Company Secretary and directors wishing to do so may take independent professional advice at the Company's expense. During the year, the Board took independent advice to further inform and support its discussions with management on the Company's strategy. The Company arranges appropriate insurance cover in respect of legal actions against its directors. The Company has also entered into indemnities with its directors as described in the Other Statutory Information section in this report.

Executive Chairman, non-Executive Chairman, and Group Chief Executive Officer

Consistent with the Board Terms of Reference and those of the Chairman's Committee while it operated, and separately with the Senior Insurance Managers Regime (SIMR), there are role profiles for

the Non-Executive Chairman, Executive Chairman (when appointed), and the Group CEO which set out the duties of each role. The Non-Executive Chairman's priority is to lead the Board, monitor the Group's culture and ensure its effectiveness. The priority of the Group CEO and the interim Executive Chairman is the management of the Group. The Board has delegated the day-to-day running of the Group to the Group CEO or the interim Executive Chairman within certain limits, above which matters must be escalated to the Board for determination. Summaries of the role profiles for the Chairman, Executive Chairman, SID, Group CEO and NEDs are available on the Company's website at www.aviva.com/about-us/roles.

Senior independent director (SID)

The SID's role is to act as a sounding board for the Chairman, to serve as an intermediary for the other directors where necessary and to be available to shareholders should they have concerns they have been unable to resolve through normal channels, or when such channels would be inappropriate. In addition, Glyn Barker met each NED from time to time, providing a forum in which they could raise matters. The SID role profile was also amended to enhance his role in managing any potential conflicts of interest following the appointment of an Executive Chairman.

Induction, training and development

The Board believes strongly in the professional development of the directors and all the Group's employees. Each director commits to continuing their professional development as part of their service contract. During the year, the directors attended a number of internal training sessions on topics including longevity assumptions, cash and operating capital generation and responsible investing. Training sessions have been built into the Board and Committees' plans for 2019. The Chairman ensures that any new directors receive a comprehensive induction programme over a number of months, tailored to their particular needs. All new directors would receive induction materials, which include: the current strategic and operational plan; recent Board and committee minutes and meeting packs; organisation structure charts; role profiles; a history of the Group; and relevant policies, procedures and governance material. Any knowledge or skill enhancements identified during the director's regulatory application process would also be addressed through their induction programme. No new non-executive directors were appointed during the year.

Board calendar

During 2018, 14 Board meetings were held, of which nine were scheduled meetings and five were additional meetings called at short notice. In addition, the Board delegated responsibility for certain items to specially created Board committees, which met twice only to discuss these particular items.

The Board visits different markets each year and during 2018 held a Board meeting at our Italian head office. This gave the Board the opportunity to meet the senior management teams and to gain a deeper understanding of the operations and performance of the Italian market. In June 2018, the Board held its annual two-day strategy meeting offsite in the UK to set and monitor progress against the Group's strategic plan.

Board and Committee meetings attendance during 2018

Number of meetings held ¹	Board ¹ 14	Audit Committee 7	Governance Committee 4	Nomination Committee 3	Remuneration Committee 7	Risk Committee 5
Executive Chairman (interim)						
Sir Adrian Montague ²	14/14	—	—	3/3	—	—
Executive Directors						
Mark Wilson ³	11/11	—	—	—	—	—
Tom Stoddard	14/14	—	—	—	—	—
Andy Briggs	14/14	—	—	—	—	—
Maurice Tulloch	14/14	—	—	—	—	—
Non-Executive Directors						
Glyn Barker ^{4, 6}	12/14	7/7	4/4	3/3	6/7	5/5
Patricia Cross ⁵	14/14	6/7	—	3/3	7/7	—
Belén Romana García ⁴	13/14	—	4/4	3/3	—	5/5
Michael Hawker ^{4, 7}	13/14	7/7	—	3/3	—	5/5
Michael Mire	14/14	—	4/4	3/3	7/7	5/5
Claudia Arney ⁶	14/14	—	4/4	3/3	6/7	5/5
Keith Williams	14/14	7/7	4/4	3/3	—	5/5

1 During the year there were 14 Board meetings, of which 9 were scheduled meetings and 5 were called at short notice. In addition, there were two further Board sub-committee meetings held at short notice and attended by the Chairman and the NEDs.

2 Sir Adrian Montague assumed executive responsibilities on 9 October 2018 immediately after Mark Wilson stepped down as Group CEO. He reverted to the role of Non-Executive Chairman upon appointment of the new Chief Executive Officer on 4 March 2019.

3 Mark Wilson stepped down as the Chief Executive Officer of the Group on 9 October 2018.

4 The Board meeting on 22 March 2018 was called at short notice and, due to this, Glyn Barker, Michael Hawker, and Belén Romana García were unable to attend due to other prior commitments. The Board meeting on 8 October 2018 was also called at short notice and due to this Glyn Barker was unable to attend due to other prior commitments. Papers were circulated to all directors before the meetings and those unable to attend could raise issues and give comments to the Chairman in advance of the meetings taking place.

5 Patricia Cross was unable to attend the Audit Committee meeting on 8 May 2018 due to medical reasons.

6 Claudia Arney was unable to attend the Remuneration Committee meeting on 2 October 2018, and Glyn Barker was unable to attend the Remuneration Committee meeting on 6 October 2018, both due to other prior commitments as the meetings were called at short notice.

7 Michael Hawker will retire from the Board of Aviva on 31 March 2019.

Board priorities

The Board made solid progress during 2018 on a number of the objectives set at the beginning of the year. These included the execution of capital management strategies to reduce expensive subordinated debt; the buy-back of £600m of ordinary shares and further increase in value for our shareholders by implementing the fourth consecutive year of double digit dividend growth. Succession planning was also a focus of activity in relation to the departure of Mark Wilson and the identification of a new Group CEO.

The Board continued to monitor customer metrics to ensure that we deliver on our purpose to Defy Uncertainty through our comprehensive product offering and customer service. The Board also engaged, challenged and worked with management when the Group did not meet our customer and stakeholder expectations, such as in the migration of some of our digital platforms to a new vendor system.

Consistent with our Digital First ambition and linking to our customer agenda, in October 2018 we launched Blue, our Hong Kong digital insurance joint venture together with Hillhouse Capital and Tencent Holdings Limited. These items were in addition to the Board's routine standing agenda which includes financial reporting and strategic planning.

During the year, the Board was supported by the Evolution Council, made up of high calibre developing leaders from across the business, which provided insights from an employee perspective on digital, brand and customer.

During 2019, the Board's agenda will focus on further orientating the organisation towards our customers, embedding our new CEO, continuing to evolve our strategy and simplifying our IT estate. The Board will continue to drive progress to achieve consistently excellent customer service and a comprehensive product offering that meets customers' evolving needs. Digital First will remain our preferred approach, for example through our new AvivaPlus proposition. We will continue to monitor our risks and controls around IT and Cyber Security, the operational impact of Brexit, and developments in our IT platforms that will simplify and support digitising our service delivery to customers. Offsite strategy days are used to set, and reflect on progress against the Company's strategy. In these sessions the Board discusses the strategic priorities for the year ahead and sets the three-year strategic plan and these sessions will continue to occur in 2019.

The Audit, Governance and Risk Committees will continue to consider the opportunities and risks associated with each market and the Remuneration Committee will assess any consequential impact on reward decisions. As part of our employee engagement commitments, the Board will continue to interact with the Evolution Council, 'Your Forum', and other employee forums and to carefully consider and respond to the annual all-employee survey, 'Voice of Aviva'. Succession planning and the continued development of the talent pipeline will continue to be a focus for both the Board and the Nomination Committee.

Board evaluation

The effectiveness of the Board is vital to the success of the Group. The Board undertakes a rigorous evaluation process each year to assess how it, its committees and individual directors are performing. During 2017, an external evaluation was conducted, with a series of outcomes reported during 2018. A follow up external evaluation was conducted in 2018, with the outcomes reported in 2019. Both external evaluations were facilitated by Independent Board Evaluation (IBE). IBE is an external board evaluation facilitator which has no other connection with Aviva. Although the 2016 Code only requires an externally facilitated evaluation every three years, the Board considered that an externally facilitated evaluation in 2018 would support its strategic thinking, and further

develop its effectiveness. Interviews were conducted with every Board member, according to a set agenda tailored for the Board, which had been agreed with the Chairman and the Group Company Secretary. In addition, interviews were held with senior managers and advisers. Following the final report, recommendations were considered by the Board and shared with each committee, and a further action plan for areas of focus was agreed. The 2018 actions are outlined in the table below. These will be reviewed during 2019.

In addition, during the year the NEDs, led by the Chairman, met to discuss the executives' performance. The NEDs, led by the SID Glyn Barker, also met without the Chairman present to consider the Chairman's performance.

Outcomes and steps taken in 2018

Focus area	Theme	Feedback/actions
Strategic focus	Focussing on strategic themes and incorporating investors' input	The Board prioritised discussions on strategy during 2018 and held in depth strategy discussions in June and September. The Board undertook an investor survey to garner investor thoughts and feedback. This feedback was incorporated into Board discussions on strategy and into the areas of focus for the Board during the year.
Succession planning	Board and executive level succession planning	The identification of Maurice Tulloch as our new Group CEO built on the succession planning work carried out by the Board in previous years. The Board also considered ways in which a pipeline of suitable candidates for executive and non-executive directorships could be maintained and enhanced, and refreshed and strengthened its NED succession framework during the year.
Governance	Developing the relationship between Aviva plc and subsidiary boards	The annual Chairman's conference was held in November 2018, allowing the Board to engage with subsidiary company board members. The appointment of Non-Executive Directors from the Board to the Group's material subsidiaries has strengthened communications and strategic linkages between Group companies. During the course of the year, the Board received reports and deep dives into different business areas and markets and held a Board meeting in Italy to get a greater insight into the Italian business and to meet with the Italian board. A number of Aviva plc directors also attended subsidiary board meetings.
International focus	Strategic priorities	The Board has enhanced its focus on its international markets through business unit presentations from key international markets and visits to offices outside the UK. This was supported by Maurice Tulloch's appointment to the Board in June 2017.
Culture	Diversity and inclusion	The Board is committed to playing a leading role in maintaining a culture which values diversity and inclusion throughout the Group. It uses information from the Voice of Aviva all-employee engagement survey, input from the Evolution Council and from NED participation in the 'Your Forum' employee forum to increase insight into our Group's culture. The Board monitors closely feedback from the Group employee survey and the progress of culture development programmes.

Our stakeholders

The Board understands that the long-term sustainable success of Aviva is dependent on effective engagement with our key stakeholders. We recognise the role that each stakeholder group plays in our success and our responsibilities towards them. Building strong stakeholder engagement mechanisms, based on dialogue and participation, is a foundational part of our social 'licence to operate.' The table below identifies those key stakeholders and sets out how the Board engages with them.

Our stakeholders	Why they are important to us	How are we engaging
Customers	Our customers are the users of our products and services and are those who we support to 'Defy Uncertainty.' We serve customers in our eight major markets and in other jurisdictions where we have strategic investments.	The Board received two formal presentations on customer issues during the year and focused on customer issues during the Board's strategy offsite meetings. The Governance Committee, working in support of the Board, considers customer matters at every meeting to ensure a consistent and deep focus on the customer experience and on customer issues. As noted in the Directors' Remuneration Report, customer measures have been introduced into the annual bonus element of executive directors' pay, to further encourage a more customer centric approach. As a business we conduct extensive direct customer testing and during 2019 the Board has made the customer a priority area of focus.
Our people	Our people are essential to meeting our purpose to help our customers to Defy Uncertainty and deliver simple, innovative and customer centric products and services.	The Board engages with our people in several ways. The Board receives regular updates on the culture and engagement of our employees. We have a fully elected employee forum 'Your Forum' representing UK and European employees, which meets with one of our Non-Executive Directors annually. We also have the 'Evolution Council,' made up of high calibre developing leaders from across the business, that provides insight on digital, brand and strategy. The Executive Chairman chairs all meetings of the Evolution Council and two other Non-Executive Directors have also attended meetings. We also engage with our people through forums such as 'Uncut', unscripted Q&A sessions with senior managers streamed live, and a programme of town hall meetings.
Business partners/suppliers	Our business suppliers and partners provide us with the tools and services we need to deliver for our customers.	Our Procurement function conducts supplier surveys and supports a programme of supplier engagement, some of which is linked to our annual statement on Modern Slavery. During 2019 the Board will continue to review this engagement activity.
Shareholders	Our shareholders are the ultimate owners of the Company and are involved with certain stewardship activities.	The Board meets with shareholders at the Annual General Meeting which provides an opportunity, predominantly for our retail shareholders, to engage directly with the Board. The Chairman and Executive Directors have a programme of meetings with institutional investors during the year. The Board also receives weekly reports from the Investor Relations team and briefings from our corporate brokers on investor views.
Regulators	Aviva is subject to financial services regulations in all the markets it operates and requires regulatory approval to operate.	Aviva is subject to close and continuous supervision from its regulators. This includes a programme of regular meetings between Board members and our regulators.
Communities	Aviva approaches business in a responsible and sustainable way that aligns with our purpose and values and supports the communities in which we operate.	The Board receives regular updates on our community activities, such as our partnership with the Red Cross, and the establishment of the Aviva Foundation. The Governance Committee supports the Board in this area and approves the corporate responsibility strategy for the Group and oversees the implementation of that strategy.

Employee engagement

The 2018 Code, which Aviva will report against in our 2019 Annual report and accounts, sets out three ways in which companies can engage with the workforce. The Board will consider its approach during the year and currently the company is applying a hybrid arrangement. This consists of engagement with 'Your Forum', our workforce engagement forum, which is supplemented by attendance from Non-Executive Directors where appropriate. The Evolution Council provides a further employee engagement forum and is also attended by Board members. This enables the Board attendees to share output from these employee bodies with the wider Board and provide feedback to the Your Forum and Evolution Council. In addition to these arrangements the Board meets with employees at 'Talent Breakfasts' and regularly conducts business unit meetings to engage with a wider pool of employees.

Committee effectiveness

As part of the Board effectiveness review process, each committee considers the feedback from the Board evaluation exercise and develops an action plan as appropriate.

Frameworks for risk management and internal control

The Board is responsible for promoting the long-term success of the Company for the benefit of shareholders, as well as taking account of other stakeholders including employees and customers. This includes ensuring that an appropriate system of risk governance is in place throughout the Group. To discharge this responsibility, the Board has established frameworks for risk management and internal control using a 'three lines of defence' model and reserves for itself the setting of the Group's risk appetite. Further details are contained on the following pages.

In-depth monitoring of the establishment and operation of prudent and effective controls in order to assess and manage risks associated with the Group's operations is delegated to the Risk, Governance and Audit Committees which report regularly to the Board. However, the Board retains ultimate responsibility for the Group's systems of internal control and risk management and has reviewed their effectiveness for the year. The frameworks for risk management and internal control play a key role in the management of risks that may impact the fulfilment of the Board's objectives. They are designed to identify and manage, rather than eliminate, the risk of the Group failing to achieve its business objectives and can only provide reasonable and not absolute assurance against material misstatement and loss. The frameworks are regularly reviewed and were in place for the financial year under review and up to the date of this report. They help ensure the Group complies with the Financial Reporting Council's (FRC) guidance on Risk Management, Internal Controls and Related Financial and Business Reporting.

A robust assessment was conducted by the Board of the principal risks facing the Company, including consideration by the Risk Committee of those emerging risks that could impact the Group's business model, future performance, solvency and liquidity. In 2018 the Risk Committee reviewed a number of emerging risk scenarios and focused on Brexit (regular updates), systemic cloud risk and 'silent cyber', competitive threats from technology companies entering the insurance market, risks posed by climate change, outsourcing supplier collapse risk and other emerging risks and sources of market uncertainty. Further information is contained in the Risk Committee report.

Risk management framework

The Risk Management Framework (RMF) is designed to identify, measure, manage, monitor and report the principal risks to the achievement of the Group's business objectives and is embedded throughout the Group. It is codified through risk policies and business standards which set out the risk strategy, appetite, framework and minimum requirements and controls for the Group's worldwide operations. Further detail is set out in note 59.

Internal controls

Internal controls facilitate effective and efficient operations, the development of robust and reliable internal reporting and compliance with laws and regulations. Group reporting manuals in relation to IFRS and Solvency II reporting requirements and a Financial Reporting Control Framework (FRCF) are in place across the Group. FRCF relates to the preparation of reliable financial reporting, covering both IFRS and Solvency II reporting activity. The FRCF process follows a risk-based approach, with management identification, assessment (documentation and testing), remediation (as required), reporting and certification over key financial reporting related controls. Management regularly undertakes quality assurance procedures over the application of the FRCF process and controls.

In 2018, the Group was focused on reinforcing its operational resilience by driving major control improvements in a number of areas, including continued investment in the Group's IT estate, disaster recovery capability and the strengthening of its cyber security controls. This work will continue through 2019. More broadly, the Group seeks to continue to monitor and further enhance its control frameworks across the business, including financial crime prevention and data privacy. Further information can be found in the Audit and Risk Committee reports.

First line – management monitoring

The Group Executive members and each market Chief Executive Officer are responsible for the application of the RMF, for implementing and monitoring the operation of the system of internal control and for providing assurance to the Audit, Governance and Risk Committees and the Board.

Second line – risk management, compliance and actuarial functions

The Risk Management function is accountable for the quantitative and qualitative oversight and challenge of the identification, measurement, monitoring and reporting of principal risks and for developing the RMF.

The Actuarial function is accountable for the Group wide actuarial methodology, reporting to the relevant governing body on the adequacy of reserves and capital requirements, as well as underwriting and reinsurance arrangements. The Compliance function supports and advises the business on the identification, measurement and management of its regulatory, financial crime and conduct risks. It is accountable for maintaining the compliance standards and framework within which the Group operates, and monitoring and reporting on its compliance risk profile.

Third line – internal audit

The third line of defence is Internal Audit. This function provides independent and objective assessment on the robustness of the RMF and the appropriateness and effectiveness of internal control to the Audit, Governance and Risk Committees, market audit committees and the Board. Further information can be found in the Audit Committee report.

The principal committees that oversee risk management are as follows

The Risk Committee	The Governance Committee	The Audit Committee
Assists the Board in its oversight of risk and risk management across the Group and makes recommendations on risk appetite to the Board. Reviews the effectiveness of the Risk Management Framework, and the methodology in determining the Group's capital and liquidity requirements. Ensures that risk management is properly considered in setting remuneration policy.	Works closely with the Risk Committee and is responsible for assisting the Board in its oversight of operational risk across the Group, particularly the risk of not delivering good customer outcomes and compliance with our corporate governance principles.	Works closely with the Risk Committee and is responsible for assisting the Board in discharging its responsibilities for the integrity of the Company's financial statements, the effectiveness of the system of internal controls and for monitoring the effectiveness, performance and objectivity of the internal and external auditors.

Board oversight of risk management

The Board's delegated responsibilities regarding oversight of risk management and the approach to internal controls are set out on the previous pages. There are good working relationships between the Board committees and they provide regular reports to the Board on their activities and escalate significant matters where appropriate. The responsibilities and activities of each Board committee are set out in the committee reports.

Assessment of effectiveness of risk management

Each business unit Chief Executive Officer and Chief Risk Officer is required to make a declaration that the Group's governance and system of internal controls are effective and are fit for purpose for their business and that they are kept under review through the year.

Any material risks not previously identified, control weaknesses or non-compliance with the Group's risk policies or local delegations of authority must be highlighted as part of this process. This is supplemented by investigations carried out at Group level and a Group CEO and CRO declaration for Aviva plc.

The effectiveness assessment also draws on the regular cycle of assurance activity conducted during the year, as well as the results of the annual assessment process. During 2018, this has been supported by the application of the Group's Operational Risk & Control Management framework. Through this the Group has defined a common system and methodology for the management of operational risks and the controls to be deployed throughout the Group. This framework includes tools, processes and standardised reporting necessary to identify, measure, manage, monitor and report on the operational risks to which the business is, or could be, exposed and the controls in place to mitigate those risks within centrally set tolerances. The details of key failings or weaknesses are reported to the Audit Committee and the Board on a regular basis and are summarised annually to enable them to carry out an effectiveness assessment.

The Audit Committee, working closely with the Risk Committee on behalf of the Board, carried out a full review of the effectiveness of the systems of internal control and risk management in March 2018 covering all material controls, including financial, operational and compliance controls and the Risk Management Framework (RMF). There has been regular reporting to the committee throughout the year to ensure that outstanding areas of improvement are both identified and remediated. Whilst there has been substantial progress during the year there remains a number of areas where significant work is still required. The reports to the committee refer to the need to embed controls in a number of areas and the need to make significant improvement in areas which represent key aspects of the Group's control environment, such as cyber security, IT resilience and disaster recovery, as well as financial crime prevention, data management, UK Insurance complaints management (including data migrations) and ongoing improvements in Canada. The Audit Committee on behalf of the Board will continue to monitor progress throughout 2019.

The risk management framework of a small number of our joint ventures and strategic equity holdings differs from the RMF outlined in this report. We continue to work with these entities to understand how their risks are managed and to align them, where possible, with our framework.

Communication with shareholders

The Company places considerable importance on communication with shareholders. The Executive Directors have an ongoing dialogue and a programme of meetings with institutional investors, fund managers and analysts which are managed by the Company's Investor Relations function. The Chairman met a number of the Company's major shareholders during 2018. At these meetings a range of issues were discussed within the constraints of information already made public, to understand shareholders' perspectives. Shareholders' views are regularly communicated to the Board through the Group CEO's, or Executive Chairman's, and CFO's reports and weekly briefings from the corporate brokers and the Investor Relations function. The SID was available to meet with major investors to discuss any concerns that could not be resolved through normal channels.

2019 AGM

The 2019 AGM will be held on Thursday 23 May 2019 and the Notice of AGM and related papers will, unless otherwise noted, be sent to shareholders at least 20 working days before the meeting. The AGM provides a valuable opportunity for the Board to communicate with private shareholders. All serving directors attended the Company's 2018 AGM, and plan to attend the 2019 AGM. A presentation on the Group's performance will be given at the 2019 AGM and made available on the Company's website after the meeting at www.aviva.com/agm.

Shareholders are invited to ask questions related to the business of the meeting at the AGM and have an opportunity to meet with the directors following the conclusion of the meeting. Further details on the AGM are provided in the Shareholder Services section of this report.

Nomination Committee report

Committee focus during 2018

I am pleased to present the Nomination Committee's report for the year ended 31 December 2018.

During the year, the Committee reviewed and refreshed the Non-Executive Director succession process and reviewed the succession and talent development framework for senior executives.

On 9 October 2018, the Group Chief Executive Officer (Group CEO) Mark Wilson stepped down from the Board and during the remainder of the year, the Committee was focused on overseeing the selection process for the new Group CEO.

Committee membership

The members of the Committee are shown in the table below. Details of their experience and qualifications are shown in the Directors' biographies, and their attendance at Committee meetings during the year is shown within the Directors' and Corporate Governance report. There were no changes to the composition of the Committee during 2018.

In January 2019, we announced that Michael Hawker would retire from the Board as a Non-Executive Director and as Chairman of the Risk Committee and as a member of the Audit and Nomination Committees with effect from 31 March 2019. The appointment of the new Risk Committee Chair is well advanced and will be announced following completion of the relevant regulatory approval process.

Name	Member Since	Years on the Committee
Sir Adrian Montague ¹	06/03/2013	6
Claudia Arney	08/02/2016	3
Glyn Barker	01/07/2012	6
Patricia Cross	01/12/2013	5
Belén Romana García	26/06/2015	3
Michael Hawker ²	01/07/2012	6
Michael Mire	12/09/2013	5
Keith Williams	01/08/2016	2

¹ Chair

² Michael Hawker will retire from the Nomination Committee with effect from 31 March 2019.

Committee Purpose

The main purpose of the Committee is to monitor and maintain an appropriate balance of skills, knowledge, experience and diversity amongst the Directors. To assist in identifying and nominating candidates for the Board, the Committee oversees succession planning for the Executive and Non-Executive Directors and Senior Management. The Nomination Committee also has responsibility for the oversight of talent development throughout the Group.

Independence

During 2018, the Committee reviewed the balance of skills, experience and independence of the Board. For Non-Executive Directors, independence in thought and judgement is vital to facilitating constructive and challenging debate in the boardroom, and is essential to the operational effectiveness of the Board and Committees of Aviva.

The Committee determines a Non-Executive Director's independence by evaluating their character and judgement, in line with the 2016 UK Corporate Governance Code.

The Committee conducted a rigorous review of Glyn Barker, who has served on the Board for more than six years, and concluded that he remains independent. Glyn has a deep understanding of accounting and regulatory issues and extensive experience as a business leader and continues to provide independent oversight and challenge in the boardroom.

The Committee also reviews the appointment of Executive Directors to external positions. During the year Mark Wilson, at the time Group CEO, was invited to become a Non-Executive Director of BlackRock Inc. Aviva's policy is to permit Executive Directors to hold one external Non-Executive role, provided there are no conflicts with the interests of Aviva, and to retain any fees from such appointments. The Committee considered the time commitment required by the BlackRock role and any potential conflicts of interest that might be created. Following a review of the proposed role and a discussion of the potential conflicts, the Committee authorised Mark's acceptance of the BlackRock Non-Executive Director role, subject to certain safeguards being put in place around potential conflicts of interest. These included the Group CEO recusing himself from any meetings that were held with BlackRock as a shareholder in the Company, with the Chairman and CFO assuming this responsibility. In addition the day-to-day management of Aviva Investors, the Group's asset management business, was carried out directly by the management and Board of Aviva Investors.

Board and executive succession planning

In July 2018, the Financial Reporting Council introduced the revised UK Corporate Governance Code (the 2018 Code). The new Code places greater emphasis on succession planning and, in preparation for the 2018 Code, the Committee has built on its existing processes to enhance its focus in this area. To support effective future succession and appointments, the Committee will continue to engage with external stakeholders (including shareholders and regulators) when appropriate.

CEO Appointment

Maurice Tulloch was appointed as Group CEO on 4 March 2019 and was selected following an extensive search that produced a shortlist of exceptional candidates. The Committee appointed Spencer Stuart to support the search and interviewed a number of excellent internal and external candidates for the position in a thorough and highly competitive process. The Committee ensured that there was a diverse selection of candidates and that all the candidates aligned with the culture and value set of the Company. This process led to a unanimous conclusion with the Committee recommending the appointment of Maurice Tulloch as Group CEO.

Talent Management

The Committee also maintains close involvement in the managing and strengthening of the talent pipeline across the Group. During the year the Committee reviewed the Group talent development framework and discussed executive succession, senior leadership capability, and the Group's leadership development programmes. The framework also aims to improve diversity in our talent pipeline: for example, through our 'Women in Leadership' programme, we target development of future female leaders. Members of the Committee have also been involved in various initiatives including an ongoing programme of 'Talent Breakfasts' where high potential employees meet the Board.

Diversity

We believe at Aviva that a diverse board better understands its customer base and its business. The Board is committed to having a diverse and inclusive leadership team which provides a range of perspectives, insights and the challenge needed to support good decision making. Diversity at Aviva is not limited to gender; but is inclusive of all strands of diversity including skills and experience, geographical expertise, ethnicity, disability, and sexual orientation. The Board is supportive of the recommendations set out in the Parker Review and we aim to increase the ethnic diversity of the Board by 2021, as well as monitoring ethnic diversity in our leadership pipeline. As a global business Aviva recognises the importance of reflecting the diversity of the customers we serve in the composition of our Board and the senior management of the markets we operate in.

At the date of the report the representation of women on the Board was 27%. As part of our goal for diversity, we actively support women advancing into senior roles, with the Chairman an active member of the 30% Club. We are a charter signatory of HM Treasury's Women in Finance Charter, which commits financial services companies to a range of measures to improve gender diversity amongst senior management. During 2018, Aviva sponsored 'The Female FTSE Board Report 2018' produced by Cranfield University, examining changes in women's representation on Boards and measures that could be used to accelerate progress.

In May 2017, the Board adopted a Diversity and Inclusion statement which supports the Committee in its approach to succession planning. This Diversity and Inclusion statement, which is in line with the overall Group Diversity and Inclusion strategy, is available on the Company's website at www.aviva.com/corporate-governance.

Board effectiveness review

The Committee undertakes a review of its effectiveness annually. More information can be found in the Directors' and Corporate Governance report.

2019 priorities

In 2019 the Committee will continue to focus on succession planning both for the Board and at senior management level, and will continue to develop a strong talent pipeline and associated leadership programmes.

Sir Adrian Montague

Chair of the Nomination Committee
6 March 2019

Committee activities during 2018

Evaluation and annual assessment

- Assessed the Non-Executive Directors' independence
- Considered and recommended to the Board the election/re-election of each continuing director ahead of their election/re-election by shareholders at the Company's 2018 AGM
- Reviewed and made recommendations to the Board in respect of each Directors actual, potential or perceived conflicts of interests

Board composition and diversity

- Led the search process for the new Group CEO
- Reviewed the composition of the Board and its committees and whether the Board required additional skills and experience which would complement those of the existing members and the Company's risk profile and strategy
- Considered specific steps to be taken in relation to diversity in Board and executive succession planning

Succession planning

- Continued to focus on succession planning arrangements at both Board and executive level, against a specification for the role and capabilities required for the position and the composition of the Board
- Considered plans for succession for each Group Executive member, including talent development below Group Executive level
- Recommended the new succession planning framework to the Board for approval

Talent pipeline

- Reviewed the career and development plans for the Group Executive to ensure that there is an adequate talent pool of potential executive directors
- Provided oversight of talent development throughout the Group and ensured there is a sufficient and diverse pipeline of talent available to execute the Company's current and future strategy

Risk Committee report

Committee focus during 2018

I am pleased to present the Committee's report for the year ended 31 December 2018.

The Company's approach to risk and risk management together with the principal risks that face the Group are explained within the Risk and risk management section of this report.

During the year the Committee's focus remained on the political environment, in particular Brexit planning, economic outlook, outsourcer contagion risk, the emerging strategic risks posed by technology changes, risks posed by climate change, the heightened risk of cyber threats and data security, together with ongoing regulatory change.

The Company's overall risk profile has remained fairly constant throughout 2018. The Committee continued to review and oversee the strengthening of the Group's operational risk environment and ongoing monitoring of the businesses' capacity to deliver a number of mandatory and strategic change projects underway.

The Committee continues to monitor the current risk environment, with IT and operational risk remaining as significant themes. This aligns to the Committee's focus on cyber and IT, which includes cyber security, transformation of IT infrastructure, and the ability to deliver data digitally to meet the needs of our customers.

Due to the ongoing Brexit negotiations between the United Kingdom and the European Union, the political landscape has remained volatile in 2018, with the Committee continuing to monitor the political environment, Brexit planning and preparation activities.

Committee membership

The members of the Committee are shown in the table below. Details of their experience and qualifications are shown in the Directors' biographies, and attendance at Committee meetings during the year is shown within the Directors' and Corporate Governance report. There were no changes to the composition of the Committee during 2018.

Name	Member Since	Years on the Committee
Michael Hawker ¹	01/01/2010	9
Glyn Barker	02/05/2012	6
Belén Romana García	26/06/2015	3
Michael Mire	12/09/2013	5
Claudia Arney	01/01/2017	2
Keith Williams	03/08/2017	1

¹ Chair. Michael Hawker will retire from the Risk Committee with effect from 31 March 2019. The appointment of the new Risk Committee Chair is well advanced, and will be announced following completion of the relevant regulatory approval process.

Committee purpose

The main purpose of the Committee is to assist the Board in its oversight of risk within the Group, with particular focus on reviewing the Group's risk appetite and risk profile in relation to capital, liquidity and franchise value and reviewing the effectiveness of the Group's Risk Management Framework. The Committee reviews the methodology used in determining the Group's capital requirements and stress testing and ensures that due diligence appraisals are carried out on strategic or significant transactions. In addition to the

risks inherent in the Group's investment portfolio, the Committee reviews the Group's operational risks, and significant ongoing changes to the regulatory framework, while monitoring the prudential regulatory requirements across the Group. The Committee also works with the Remuneration Committee to ensure that risk management is properly considered in setting the Remuneration Policy, and is responsible for promoting a risk awareness culture for the Group.

Cyber

Given the importance of cyber security to the Group, all cyber activity is governed in one portfolio of transformation activity to ensure efficiency, transparency and the ongoing ability to manage the holistic execution alongside specific people, process and technology delivery. During the year the Committee reviewed the linkage between the Group's cyber environment and customer satisfaction, which remained a key theme of the Cyber Major Control Improvement Topic (MCIT).

The Committee reviewed the Group's Cyber Dashboard, which focused on seven capabilities (threat led strategy, governance, security engineering, detect and respond, assurance, culture and recovery) and further enhanced how the Group assesses and manages cyber risk. The dashboard provides the Group with a strong framework and a simplified process with consistent measures which enables the Committee to review the progress of the Group's capabilities for the benefit of all stakeholders. The Group also recently completed external benchmarking on the Cyber Controls and reviewed these controls within the Operational Risk & Control Management (ORCM) framework to provide increased clarity, rigour and understanding within the business units of the Group's requirements.

Work is progressing to further strengthen the cyber and disaster recovery controls, which the Committee will monitor closely to ensure they continue to evolve with changes in the shifting environment and threats as they emerge.

IT infrastructure and security

A particular focus for the Committee during 2018 was the monitoring of the IT security culture within the Group and it was recognised that the culture had further improved through the delivery of a refreshed training programme and strengthened security awareness. Service improvement was also a key area of focus in 2018 with significant effort on identifying, understanding and addressing the underlying causes of IT service matters. In recognition of the fundamental and long-term nature of the challenges around IT security, the Committee continues to review the strategic approach to IT service remediation and improvement.

During the year the Committee challenged the risk management of the Group's IT estate and ensured business focus on network availability remained a priority to support our customer and business needs. The proposed transformation of the IT infrastructure in 2019 is a key part of supporting the end to end business process and provides enhanced capacity for the future. The Committee recognises that the risk cultural awareness in the businesses has been strengthened further, especially in relation to overall application governance and business prioritisation and remains satisfied that the appropriate steps are being taken to mitigate the risks of a complex IT estate.

Data migration

During the year a number of data migration and functional service activities had not delivered the customer service outcomes we expected or required. The Committee reviewed the lessons learned from these activities and used the insights gained to further enhance risk assessments and monitoring ahead of future migration activity. The Company's data migration risk profile has been driven largely by the Group's external regulatory and conduct environment, and the impact of previous data migration projects. The Committee has further increased its focus on risk management within UK Insurance and Group-wide IT and change projects underway. The risks, governance, regulatory accountability, resource allocation, business prioritisation and project management around the Company's overall change agenda was a particular focus of the Committee's meeting agenda in 2018, and will continue to be a focus as we go into 2019. As a result, the Committee has requested that an enhanced governance structure be established for the most material Group change programmes. This enhanced structure has brought together members of the Board, Non-Executive Director representatives from key operating and regulated group boards, as well as senior executive management. This structure was further supplemented by representatives of the second and third line oversight functions (Risk and Internal Audit) with external third party assurance where appropriate. The enhanced structure supplemented the Committee Chair's ongoing engagement with the Risk Committee Chairs in a number of our regulated subsidiaries.

Capital and liquidity

During the year the Committee reviewed the current and projected liquidity position, risk environment and risk profile including credit cycle analysis and the economic outlook.

While reviewing the risk profile the Committee oversaw the analysis of the Group's current and projected Solvency II capital and liquidity position, which included reviewing forecasted operating capital generation over the plan period. The Committee reviewed the different levels of risk appetite and capital ranges across the Group and reviewed the capital positions in the Group's subsidiaries and Group sensitivities.

Brexit

During the year the Committee monitored the ongoing Brexit negotiations between the UK and EU, and reviewed the Group's operational readiness planning ahead of the scheduled UK departure on 29 March 2019. Specifically, this included reviewing progress in executing the necessary insurance portfolio transfers to subsidiaries in the Republic of Ireland and establishing our fund management business in Luxembourg, which will be the Group's hub to serve clients located in the European Economic Area (EEA). More generally the Committee has also reviewed the Group's contingency plans to ensure continuous service to customers in the event of a hard Brexit, and considered the impact on supply chain. The Committee also considered the potential risk that Brexit could trigger an early general election in the UK. Brexit will remain on the Committee's agenda throughout 2019, whilst we monitor developments and the impacts, both on the external environment and on our business.

Committee effectiveness review

The Committee undertakes a review of its effectiveness annually. More information can be found in the Directors' and Corporate Governance report.

2019 priorities

The Committee will continue to monitor the political environment, the expected exit of the UK from the EU, and the current global economic cycle, particularly the impact around perceived inflated asset values. It will also focus on the economic and market impacts on the Group operationally, together with managing any balance sheet volatility that these may bring. There will be an ongoing and significant focus on further strengthening the control framework, particularly in relation to change management, cyber risk reduction and disaster recovery capabilities of the Group. Particular attention will also remain on emerging risks, and the potential benefits that could be derived from them, particularly around advances in technology across financial services, automotive and healthcare.

Michael Hawker

Chair of the Risk Committee
6 March 2019

Committee activities during 2018

Risk appetite, risk management and risk reporting

- Reviewed reports from the Chief Risk Officer (CRO), which included updates on significant risks facing the Group, the Group's capital and liquidity position, the control environment, emerging risks and risk profile, liquidity risk appetite and operational, regulatory and conduct risk
- Reviewed and recommended the Group's risk policies for Board approval
- Reviewed reports on the updated audit approach under the Group's ORCM Methodology
- Reviewed and recommended for Board approval the Group's Solvency II (SII) Capital and Liquidity risk appetite
- Approved the Group's foreign exchange risk appetite and SII capital risk tolerances by risk type

Group capital and liquidity, financial plan and stress testing

- Approved the 2018 Group Capital and Liquidity Plan and subsequent updates
- Reviewed capital and liquidity projections including the Group's Solvency II shareholder cover ratio and liquidity cover ratio
- Reviewed updates on credit risk and the Company's credit exposure and reviewed mitigating actions
- Received updates on the asset portfolio; including global economics, assessment of macro economic impacts on the equity release market and investment updates
- Approved the Global Systemically Important Insurer Plans, including Recovery Plan and Liquidity Risk Management Plan
- Received the scenarios for group-wide stress testing to support the Group Recovery Plan
- Reviewed the 2019-2021 Group Plan

Internal model

- Undertook a review of the internal model components, reviewed internal model validation reports and governance updates

External factors

- Reviewed regular updates on the performance of the Group's investment portfolios and on the external economic environment, and assessed the implications on the Group's asset portfolio
- Monitored the risk for cyber security, the progress against cyber risks and reviewed the results of simulated security attacks against the Group
- Monitored the potential impact of Brexit, in particular the exit scenarios and regularly reviewed updates regarding the potential impact on our customers and capital and liquidity
- Reviewed the most significant emerging risk scenarios affecting the delivery of the Company's strategy, including EU GDPR

Regulatory, governance and internal audit

- Received updates from the UK Business Units
- Reviewed the Group Own Risk and Solvency Assessment Supervisory Report and approved its submission to the regulator
- Received updates on the disaster recovery, IT security, outsourcing and cyber risk MCITs, and monitored and challenged progress by management
- Received quarterly reports from the Chief Audit Officer (CAO) on internal audit which included progress on improving the control environment, progress on MCITs, and the review of the Internal Audit function
- Approved the refresh of certain Group Business Standards
- Approved the annual objectives of the CRO
- Reviewed the effectiveness of the systems of internal control and risk management
- Recommended the 2019 Risk and Control Goal for approval by the Remuneration Committee
- Reviewed the adequacy and quality of the risk management function
- Assessed the performance of all Group Business Units against the 2018 Group Risk and Control Goal

Audit Committee report

Committee focus during 2018

I am pleased to present the Audit Committee's report for the year ended 31 December 2018.

2018 has been a year of continued political and business turbulence as uncertainty around Brexit continued to impact financial markets and business planning. Against this background, the Committee has continued to focus on the fundamentals of financial reporting, our system of internal controls and the performance of the internal and external auditors. The potential impact of a number of new International Financial Reporting Standards (IFRS), including the new insurance accounting standard (IFRS 17) on the Company's financial operations and financial reporting has remained under close review by the Committee.

The Committee continued to provide oversight on behalf of the Board of all the Major Control Improvement Topics (MCITs) on Cyber Security, Compliance Effectiveness, Data Governance, Disaster Recovery, Outsourcing and Fraud Management. The Committee has specific accountability for the Fraud Management MCIT. Four MCITs were closed during 2017 and are now monitored as part of our business as usual processes. The remaining Cyber Security and Disaster Recovery MCITs remain in operation and will continue to be overseen by the Risk Committee. The MCIT programme was designed to assist management in providing even greater focus on enhancing our control environment around the six thematic areas identified.

Committee membership

The members of the Committee are shown in the table below. Details of their experience, qualifications and attendance at Committee meetings, together with the number of Committee meetings held, during the year are shown in the Directors' Biographies and Directors' and Corporate Governance report. There were no changes of the composition of the Committee during 2018.

Name	Member Since	Years on the Committee
Keith Williams ¹	01/08/2016	2
Glyn Barker	08/08/2012	6
Patricia Cross	01/12/2013	5
Michael Hawker ²	01/09/2011	7

¹ Chair

² Michael Hawker will retire from the Committee with effect from 31 March 2019.

Committee member requirements

The Committee annually reviews how its members meet the expertise criteria set out in the 2016 UK Corporate Governance Code (the 2016 Code) and the Disclosure Guidance and Transparency Rules (DTRs). Following the review undertaken for 2018, a recommendation was made to the Board that I, as Committee Chair, continued to fulfil the Code requirement for recent and relevant financial experience and the DTR requirement for competence in accounting and auditing, as did Glyn Barker. Patricia Cross and Michael Hawker confirmed that they meet the Code requirement for recent and relevant financial experience. The Committee as a whole has competence relevant to both the insurance and financial services industry.

Committee purpose

The main purpose of the Committee is to assist the Board in discharging its responsibilities for monitoring the:

- integrity of the Company's financial statements;
- adequacy and effectiveness of our systems of internal control including whistleblowing provisions; and,
- monitoring the effectiveness, performance and objectivity of our internal and external auditors.

The Committee acts independently of management and works closely with the Governance, Remuneration and Risk Committees. There is cross-membership between these Committees to ensure a good understanding and efficient communication of the work of each.

Significant issues

The significant issues that the Committee considered during the year are set out in the table below.

Areas of focus	Actions taken by the Committee
IFRS and Solvency II (SII) key issues and judgements	Challenged estimates and judgements for IFRS and SII reporting bases. IFRS judgements included goodwill and intangible asset impairment reviews, valuation for hard to value investments, reserving for insurance contracts and the additional liability arising in the UK defined benefit pension schemes for Guaranteed Minimum Pensions (GMPs), following the High Court judgement in October 2018. The Committee also reviewed the product governance provision in respect of historical advised sales by Friends Provident.
Longer Term Viability Statement (the Statement)	Reviewed and challenged the principles underpinning the Statement for 2018, and concluded that the Company and its subsidiaries will be able to continue in operation and meet their liabilities as they become due over the period covered by the Statement. The Committee continues to consider it appropriate that the Statement covers a three year period.
New IFRS	Prepared for the implementation of new IFRS, including IFRS 17, the new insurance accounting standard, IFRS 15, in respect of revenue from contracts, IFRS 9 on financial instruments, and IFRS 16 on leases. The Committee assessed the impact of each on the Group's financial position, processes, systems and data. While the impact of adopting IFRS 17 has yet to be fully assessed it is expected that it will have a significant impact on the measurement and disclosure of insurance contracts. It is not yet possible to assess the effect of adopting IFRS 9 as the Group has elected to apply the deferral approach permitted by IFRS 4 (with the result that the Standard will be considered alongside IFRS 17). The adoption of IFRS 15 in 2018 and IFRS 16 in 2019 does not have a significant impact on the Group.
IFRS and SII Life technical provisions and reserves	Challenged the assumptions used in the calculation of the Best Estimate Liability component of the technical provisions and the reserves required under SII. Reviewed and challenged the longevity, expense and credit default assumptions used for the 2018 half and full year. The challenge around the setting of longevity assumptions was a particularly significant area for review. During 2018, a detailed analysis was conducted, and reviewed by the Committee, to validate changes observed in recent mortality experience and the resulting impact on our existing longevity assumptions. In particular, the Committee reviewed the rate of annuitant mortality improvement reflecting recent experience in the UK market. The Committee met with the Chair of the UK Life Audit Committee, which had conducted its own 'deep dive' on longevity assumptions, together with the UK Life Chief Financial Officer. Following assessment of the proposed assumption changes the Committee considered the associated release of margins and the timing of recognition of changes in longevity experience in the financial statements. During the year the Committee considered, reviewed and approved the adoption of the relevant industry tables for the Bulk Purchase Annuity business in the UK. The Committee also reviewed proposals for adoption of CMI 2017 model for mortality improvement including the selection of parameters within the CMI model. The Committee also reviewed the implementation of a new actuarial modelling system in the UK. During 2018, annuities and certain protection products were transferred onto the new model. In addition, the Committee continued to review the allowance for the possible adverse impact of the decision for the UK to leave the European Union.
IFRS and SII GI reserving issues and judgements	Reviewed and challenged the principal assumptions in the calculation of the GI reserves, in particular the continued appropriateness of maintaining the provision for bodily injury claims, which was first made in the 2016 financial statements. The Committee continued to monitor progress in the changes in Ogden rate, noting the passing of the Civil Liability bill, and the range of estimates for the change in the rate.
Global Finance for The Future	The Committee reviewed and challenged management's plans for the creation of a 'Global Finance for the Future' (GFF) model for the Group's internal finance functions. The primary objective of GFF is to simplify and consolidate finance systems and operations to a single model and underlying IT systems, driving simplicity and lower cost.
Internal controls	The Committee continued to challenge and drive the ongoing implementation of the Operational Risk and Control Management framework (ORCM) to ensure ORCM is adopted across the Group and to further support a risk aware culture.
Preference shares	The Committee received and reviewed the disclosures relating to our ability to cancel our preference shares following a shareholder and court approved reduction of capital.

External auditor

PricewaterhouseCoopers LLP (PwC) was appointed as the Group's External Auditor (Auditor) in 2012 following a formal tender process. In line with the Company's policy for the external audit contract to be put out to tender at least every ten years, and in conformance with European rules on mandatory audit rotation, the Committee propose that a competitive tender process will next be completed no later than for the 2022 year end. While there is no requirement to rotate audit firms until the current auditor has served a maximum of 20 years, in determining the timing of a tender process the Committee is mindful that it is necessary to allow the selected auditor appropriate time to become independent should the Committee propose that an auditor other than PwC be selected to serve shareholders going forwards. For this reason, it is currently proposed that a tender process be completed in the 2020 financial year for the 2022 year end. The Committee will continue to monitor the effectiveness and independence of PwC, as well as considering whether this proposed timing remains appropriate in light of business developments.

The external audit is currently led by the PwC audit partner, Marcus Hine who has held the role for four years. The role of audit partner will be rotated after completion of the 2018 year end reporting process. The incoming PwC audit partner for the year ending 31 December 2019 has been agreed and a transition plan is in place.

An annual review of the Auditor was undertaken through completion of a questionnaire by the Committee, senior management, and members of the Group's finance community. The Committee concluded that PwC continued to perform effectively and is recommended to shareholders for reappointment at the 2019 AGM.

The Company has complied with the Statutory Audit Services for Large Companies Market Investigation (Mandatory Use of Competitive Tender Processes and Audit Committee Responsibilities) Order 2014 for the year ended 31 December 2018.

The Company has an External Auditor Business Standard (Standard) in place which is aimed at safeguarding and supporting the independence and objectivity of the Auditor. The Standard is compliant with all UK and International Federation of Accountants rules and takes into account the FRC's Revised Ethical Standard 2016 and the EU Audit Directive (2014/56/EU).

Non-audit fees

In 2018 the Group paid PwC £20.4 million (2017: £22.3 million) for audit and audit-related assurance services, a saving of £1.9 million following completion of the Friends Life Part VII transfer in 2017. In addition, PwC were paid £1.9 million (2017: £3.0 million) for other services, including £0.9 million (2017: £2.2 million) for other assurance services, giving a total fee to PwC of £22.3 million (2017: £25.3 million).

In line with the Standard, our Committee satisfied itself that for all non-audit engagements, robust controls were in place through a quarterly review process for audit related and non-audit services provided, to ensure that PwC's objectivity and independence was safeguarded, and concluded that it was in the interests of the Company to purchase these services from PwC due to their specific expertise. Further details are provided in note 13 of the financial statements.

Internal control

The Committee is responsible for supporting the Board in ensuring a robust system of internal control and risk management in the Group. The Committee receives regular reports on the status of the control environment, reports on our remaining Group MCIT, and updates on the management of operational risks and controls under ORCM. More information about our system of internal control

and risk management can be found in the Directors' and Corporate Governance report.

The Committee also receives quarterly control reports from the Internal Audit function and reviews and challenges management on the actions being taken to improve the quality of the overall control environment and the risk control culture across the Group.

The Committee reviews and approves the bi-annual Internal Audit Plan. It also conducts an annual review of the Internal Audit Function to assess its effectiveness and to satisfy itself that the quality, experience and expertise of the Internal Audit function is appropriate for the business. This is carried out by reviewing reports issued by Internal Audit and the output of an annual stakeholder effectiveness survey. This formal process is supplemented by regular private discussions with executive management, the Internal Auditor, and the External Auditor. In 2018, the Internal Audit function also undertook an external quality assurance review, and the Committee assessed the outcome of this review. The Committee concluded that for 2018 the function performed well and remained effective.

For the financial year under review, the Company met the relevant provisions of the 2016 Code relating to internal controls, and the FRC's 2014 'Guidance on Risk Management, Internal Control and Related Financial and Business Reporting'.

The Committee is also supported in its work by the Audit Committees that operate in the Group's regulated subsidiary entities. These subsidiary Audit Committees review the operation of internal controls, and actively challenge judgement made by management, strengthening the overall governance and control framework for the Group. The Committee Chair has engaged with subsidiary company entity chairs during the year on Group matters.

Whistleblowing

The Committee Chair is the whistleblowers' champion for the Group and has responsibility to oversee the integrity, independence and effectiveness of the Group's policies. The Committee as a whole is responsible for establishing and overseeing the effectiveness of controls put in place in accordance with regulatory requirements in respect of whistleblowing. The Board annually receives a formal report in respect of whistleblowing activity and compliance in line with our regulatory requirements.

Committee effectiveness review

The Committee undertakes a rigorous review of its effectiveness annually. More information can be found in the 'Directors' and Corporate Governance report' in this report.

2019 priorities

In 2019, in addition to carrying out its principal function, the Committee will continue to monitor the implementation of the new IFRS, with particular focus on IFRS 17, regarding the accounting treatment of insurance contracts, ahead of its expected effective date of 1 January 2022. The Committee will also closely monitor the developments related to the impact of Brexit, changes in the Ogden rate and will continue to support the development of the ORCM framework.

Keith Williams

Chair of the Audit Committee
6 March 2019

Committee activities during 2018**Financial Statements and accounting policies**

- Recommended to the Board for approval the 2018 half and full year results
- Approved the IFRS and SII technical provisions with the 2018 half and full year results
- Recommended to the Board for approval the SII Solvency and Financial Condition Report
- Reviewed and challenged the reserve positions relating to our UK Life and GI operations
- Reviewed and challenged the treatment and recoverability of goodwill and other intangible assets
- Reviewed the Chief Financial Officer's reports which included: IFRS and SII key issues and judgements; accounting developments with particular regard to the new IFRSs; and overview of internal control and risk management over financial reporting
- Reviewed and challenged the going concern assumptions for 2018 and the principles underpinning our Longer Term Viability Statement
- Reviewed and prepared for changes in the Ogden rate
- Reviewed the Group Risk Actuary's report on significant issues related to the technical provisions of SII and IFRS
- Assessed that the Annual Report was considered fair, balanced and understandable

External audit, auditor engagement and policy

- Reviewed the effectiveness of the External Auditor and was satisfied that the services it provided remained effective, objective and fit for purpose
- Reviewed the External Auditor's compliance with the independence criteria set out in the Code
- Monitored compliance with our External Auditor Business Standard on a quarterly basis
- Refreshed our External Auditor Business Standard to reflect new regulatory requirements
- Held private meetings with the External Auditor without management present to provide an appropriate forum for issues to be raised
- Approved auditor terms of engagement and remuneration
- Reviewed reports from the External Auditor with regard to: the 2018 Audit Plan and progress against plan and reports on the audit of the 2018 half and full year results including key assumptions used and outcomes of the audit

Internal audit

- Reviewed reports from the Chief Audit Officer (CAO)
- Reviewed and approved changes to our Internal Audit Charter and Business Standard
- Reviewed and approved our Internal Audit Plan
- Assessed the independence of the CAO
- Held private meetings with the CAO without management present
- Reviewed the objectives of the CAO

Internal controls, including financial reporting control framework and financial reporting developments

- Received quarterly updates on the effectiveness of our FRCF framework and rectification of controls
- Reviewed management's assessment of the effectiveness of our risk management and control environment
- Oversaw the MCIT programme
- Reviewed the Internal Audit function report to ensure adequacy of our systems of internal control and risk management
- Ensured an appropriate whistleblowing framework was in place

Governance Committee report

Committee focus during 2018

I am pleased to present the Governance Committee's report for the year ended 31 December 2018.

During 2018, the Committee considered and monitored a range of matters which included our treatment of our customers, our corporate responsibility agenda, our governance operations, and stakeholder engagement. The customer conduct oversight for Aviva UK Digital (UKD) transitioned during the year from the Committee to the UKD Board following the establishment of a Conduct Committee, with Non-Executive Director membership, to monitor and review conduct and governance matters relating to the UKD business.

Committee membership

The members of the Committee are shown in the table below. Details of their experience, qualifications and attendance at Committee meetings during the year are shown within the Directors' and Corporate Governance report. There were no changes to the composition of the Committee during 2018.

Name	Member Since	Years on the Committee
Claudia Arney ¹	01/06/2016	2
Glyn Barker	10/05/2017	1
Michael Mire	12/09/2013	5
Belén Romana García	26/06/2015	3
Keith Williams	01/08/2016	2

¹ Chair

Committee purpose

The main purpose of the Committee is to assist the Board in overseeing our customer and conduct obligations, our data governance, compliance with our corporate governance principles, our broader compliance activities and shaping the culture and ethical values of the Group and our approach to corporate responsibility.

Customers

During 2018, the Committee received regular updates from management on how we measure customer satisfaction and brand metrics. The regular review of a dashboard of customer data metrics helps us better understand our customers' needs, the challenges they face and how we can address these.

In addition to these enhancements, the Committee has conducted 'deep dives' into customer complaints when our products and services have not met our customers' expectations for any reason, and monitored the resulting upskilling of our people and improvements in our IT systems as we support our customer contact colleagues.

The Committee has also been updated on the culture action programme which aims to drive delivery of our customer first and operational simplicity goals.

Data

Ahead of the implementation date of the General Data Protection Regulation (GDPR) the Committee reviewed our data governance arrangements and monitored our implementation preparations.

The Committee has also reviewed our broader approach to data privacy to assess how Aviva demonstrates that it uses customer information appropriately.

Conduct agenda

In the past year the Committee has continued to pay close attention to Aviva's conduct risk agenda.

In addition to UK conduct risks, the Committee has also reviewed conduct and compliance risks across our markets. During the year, the Committee received a deep dive on conduct risk in our Singapore business from the Chief Risk Officer of Aviva Singapore and in our Polish business from the Chief Executive Officer of Aviva Poland.

Governance

The Committee focused on changes in the internal governance of the Group, particularly governance within our subsidiary businesses. A set of subsidiary governance principles were put in place in 2016 within the Group to provide a consistent governance framework. As part of a review and refresh of the principles, in 2018 a succession management framework was established for subsidiary entities to consider board succession planning, non-executive director tenure profiling and the skills and composition of the boards. The Committee has provided oversight of the succession framework and this has led to enhanced visibility of the subsidiary boards.

The Committee also reviewed the outcomes of the board evaluations completed by subsidiaries across the Group, and monitors the action plans developed by subsidiary boards to reflect those outcomes.

Compliance

The Committee has monitored material compliance developments and changes in the regulatory landscape from a conduct risk perspective. The Committee also approves the annual Group Compliance Plan and reviews performance against this plan. The Committee continued to monitor the financial crime risks for the Group, and associated action plans and during the year particularly focused on further strengthening first line anti-fraud controls. The Committee also monitored the Financial Crime Transformation Programme that built on the existing financial crime structures.

Corporate responsibility

The Committee continued to monitor our approach to corporate responsibility and the corporate responsibility strategy to build pride and trust in our company. During the year, the Committee reviewed Aviva's reporting on modern slavery and also received updates on the Aviva Foundation, which has been established to distribute the proceeds of our share forfeiture programme which became operational in 2018. At the end of 2018, £3 million had been raised for the Aviva Foundation.

Aviva is committed to behaving as a responsible corporate citizen and the Committee sets the guidance, direction and policies for the Group's corporate responsibility agenda. We supported the launch of the World Benchmarking Alliance with the aim of helping businesses to do more to achieve the UN Sustainable Development Goals. Further information on our integrated responsibility and sustainable business approach can be found on the Company's website at: www.aviva.com/social-purpose.

Committee effectiveness review

The Committee undertakes a review of its effectiveness annually. More information can be found in the Directors' and Corporate Governance report.

2019 priorities

In 2019, the Committee will continue to review the customer agenda, concentrating on further improving the experience we provide to customers and reviewing customer conduct risk matters.

We will also review the scope and potential outcomes from a governance review of our UK businesses and how this might be reflected in changes to our governance framework across the Aviva Group.

The Committee will also monitor the wellbeing and engagement of our people through responses to the Voice of Aviva surveys and the embedding of our culture action programme.

Claudia Arney

Chair of the Governance Committee
6 March 2019

Committee activities during 2018

Customer and risk

- Focused on the customer agenda and received regular updates and monitored progress on customer metrics relating to customer complaints and the conduct agenda, sales, retention and claims experience

Corporate responsibility

- Continued to drive the corporate responsibility agenda and monitored compliance with the Group's corporate responsibility strategy
- Reviewed the Group's modern slavery statement, annual corporate responsibility reporting and the Group's Financial Crime, Regulatory Business and Corporate Responsibility, Environment and Climate Change Business Standards
- Received updates on the Group's health and safety performance

Governance

- Considered regular updates from the Group Company Secretary on governance matters, legal and litigation risks which had the potential to impact the reputation of the Group
- Monitored the Group's compliance with the UK Corporate Governance Code and other areas of regulation and guidance
- Reviewed and where appropriate approved changes to the composition of the material subsidiary boards
- Discussed the outcomes of the 2018 effectiveness review
- Considered succession planning for material subsidiaries around the Group

People

- Reviewed the results of the Voice of Aviva surveys
- Reviewed and considered the talent development programmes for leadership across the Group, with particular focus on diversity
- Approved the Business Ethics Code

Regulatory and financial crime

- Regularly reviewed updates from the Group Compliance Oversight Director
- Reviewed potential financial crime risks and any actions required in response
- Monitored data governance
- Monitored the Group's relationship and interaction with regulatory bodies and actions taken in respect of regulatory developments
- Reviewed and challenged management's explanations and actions in response to issues/events

UK Digital (UKD)

- Reviewed the Chief Risk Officer's report and Internal Audit Report on UKD
- During 2018 the UKD Board established a conduct committee and the Committee's role and oversight of the conduct agenda for UKD was transitioned to the UKD Board

Other statutory information

The directors submit their annual report and accounts for Aviva plc, together with the consolidated financial statements of the Aviva group of companies, for the year ended 31 December 2018.

The Directors' report required under the Companies Act 2006 comprises this Directors' and Corporate Governance report, the Directors' Remuneration Report and the following disclosures in the Strategic report:

- Corporate responsibility – Disclosure of our greenhouse gas emissions
- Our people – Inclusive diversity – details of our employment policies
- Our people – Engaging with our people – details of employee engagement
- Our strategy – Delivering on a clear plan of action
- Important events since the financial year end

Details of significant post balance sheet events that have occurred after 31 December 2018 are disclosed in note 65.

The management report required under Disclosure and Transparency Rule 4.1.5R comprises the Strategic report (which includes the principal risks relating to our business) and details of material acquisitions and disposals made by the Group during the year which are included in notes 3 and 4. This Directors' and Corporate Governance report fulfils the requirements of the corporate governance statement under Disclosure and Transparency Rule 7.2.1.

Our policy on hedging

The hedging policy is disclosed in note 60.

Related party transactions

Related party transactions are disclosed in note 62 which is incorporated into this report by reference.

Dividends

Dividends for ordinary shareholders of Aviva plc are as follows:

- Paid interim dividend of 9.25 pence per ordinary share (2017: 8.4 pence)
- Proposed final dividend of 20.75 pence per ordinary share (2017: 19.00 pence)
- Total ordinary dividend of 30.00 pence per ordinary share (2017: 27.40 pence)
- Total cost of ordinary dividends paid in 2018 was £1,128 million (2017: £983 million)

Subject to shareholder approval at the 2019 AGM, the final dividend for 2018 will become due and payable on 30 May 2019 to all holders of ordinary shares on the Register of Members at the close of business on 12 April 2019 (payment date approximately four business days later for holders of the Company's American Depositary Shares (ADS)). In compliance with the rules issued by the Prudential Regulation Authority in relation to the implementation of the Solvency II regime, the dividend is required to remain cancellable at any point prior to becoming due and payable and to be cancelled if, prior to payment, the Group ceases to hold capital resources equal to or in excess of its Solvency Capital Requirement,

or if that would be the case if the dividend was paid. Details of any dividend waivers are disclosed in note 34.

Dividend policy

For the full year dividend for 2018 the Board of Directors has proposed a 9% increase to 30.0 pence per share. We are moving to a progressive dividend policy. Moderating the rate of dividend per share growth will enhance our flexibility to repay debt and invest in business improvement.

Under UK company law, we may only pay dividends if the Company has 'distributable profits' available. 'Distributable profits' are accumulated, realised profits/(losses) not previously distributed or capitalised, less accumulated, unrealised losses not previously written off based on IFRS. Even if distributable profits are available, we pay dividends only if the amount of our net assets is not less than the aggregate of our called-up share capital and undistributable reserves and the payment of the dividend does not reduce the amount of our net assets to less than that aggregate.

As a holding company, the Company is dependent upon dividends and interest from our subsidiaries to pay cash dividends. Many of the Company's subsidiaries are subject to insurance regulations that restrict the amount of dividends that they can pay to us.

Historically, the Company has declared an interim and a final dividend for each year (with the final dividend being paid in the year following the year to which it relates). Subject to the restrictions set out above, the payment of interim dividends on ordinary shares is made at the discretion of the Board, while payment of any final dividend requires the approval of the Company's shareholders at a general meeting. Dividends on preference shares are made at the discretion of the Board.

The Company pays cash dividends in pounds sterling and euros, although the articles of association permit payment of dividends on ordinary shares in any currency and in forms other than cash, such as ordinary shares.

Interim dividends have previously been paid in November of each year. Following feedback from shareholders, to bring Aviva's practice in line with its peers and to reduce the gap between the interim results announcement and dividend payment, from 2018 interim dividends are paid in September, subject to declaration by the Board. A final dividend is typically proposed by the Company's Board after the end of the relevant year and generally paid in May. The following table shows certain information regarding the dividends that we paid on ordinary shares.

Year	Interim dividend per share (pence)	Interim dividend per share (cents) ¹	Final dividend per share (pence)	Final dividend per share (cents) ¹
2013	5.60	N/A	9.40	N/A
2014	5.85	N/A	12.25	N/A
2015	6.75	N/A	14.05	N/A
2016	7.42	N/A	15.88	18.71
2017	8.40	9.50	19.00	21.77
2018	9.25	10.25	xx.xx	–

¹ Euro dividend rate per share

Distributable reserves

Under UK company law, dividends can only be paid if a company has distributable reserves sufficient to cover the dividend. At 31 December 2018, Aviva plc itself had distributable reserves of greater than £4.1 billion. In UK Life, our largest operating subsidiary, distributable reserves, which could be paid to Aviva plc via its intermediate holding company, are based on the updated Companies Act 2006 (Distributions of Insurance Companies) Regulations 2016 which uses an adjusted Solvency II Own Funds measure in determining profits available for distribution. While the

UK insurance regulatory laws applicable to UK Life and our other UK subsidiaries impose no statutory restrictions on an insurer's ability to declare a dividend, the rules require maintenance of each insurance company's solvency margin, which might impact their ability to pay dividends to the parent company. Our other life, general insurance, and fund management subsidiaries' ability to pay dividends and make loans to the parent company is similarly restricted by local corporate or insurance laws and regulations. In all jurisdictions, when paying dividends, the relevant subsidiary must take into account its capital position and must set the level of dividend to maintain sufficient capital to meet minimum solvency requirements and any additional target capital expected by local regulators. We do not believe that the legal and regulatory restrictions constitute a material limitation on the ability of our businesses to meet their obligations or to pay dividends to the parent company, Aviva plc.

Acquisition of own shares

A share re-purchase programme was one method by which we intended to return capital to shareholders. Our capital strength provided us with significant flexibility in terms of capital allocation, and as a result we outlined plans to commence a share buy-back of ordinary shares. The Board believed that a buy-back was a compelling use of Aviva's excess capital.

During 2018, the Company re-purchased 119,491,188 ordinary shares of 25 pence each for an average of £5.0213 per share and an aggregate amount of £600 million. The purchased shares represent 2.54% of called-up share capital as at 31 December 2018. All shares purchased have been cancelled.

Details of shares purchased, held or disposed by employee share plan trusts on behalf of the Company in 2018 are set out in note 34.

Share class and listing

All the Company's shares in issue are fully paid up and the ordinary and preference shares have a Premium and Standard listing respectively on the London Stock Exchange.

Details of the Company's share capital and shares under option at 31 December 2018 and shares issued during the year are given in notes 32 to 35. The calculation of earnings per share and the impact of the share buy-back on the number of shares in issue is included in note 15.

Share capital

During the year, 119,491,188 ordinary shares were cancelled following re-purchase by the Company as outlined above, and 9,160,708 ordinary shares were allotted to satisfy amounts under the Group's employee share and incentive plans. At 31 December 2018 the:

- issued ordinary share capital totalled 3,902,352,211 shares of 25 pence each (83% of total share capital)
- issued preference share capital totalled 200,000,000 shares of £1 each (17% of total share capital)

Further details on the ordinary share capital of the Company are shown in note 32.

Rights and obligations attaching to the Company's ordinary shares and preference shares

Rights and obligations attaching to the Company's shares together with the powers of the Company's directors are set out in the Company's articles of association (the Articles), copies of which can be obtained from Companies House and the Company's website at www.aviva.com/articles, or by writing to the Group Company Secretary. The powers of the Company's directors are subject to relevant legislation and, in certain circumstances (including in relation to the issue or buying back by the Company of its shares),

are subject to authority being given to the directors by shareholders at a general meeting. At the 2019 AGM, shareholders will be asked to renew the directors' authority to allot new securities. Details are contained in the Notice of 2019 Annual General Meeting (Notice of AGM).

Restrictions on transfer of securities

With the exception of restrictions under the Company's employee share incentive plans, while the shares are subject to the plan rules, there are no restrictions on the voting rights attaching to the Company's ordinary shares or the transfer of securities in the Company.

Where, under an employee share incentive plan operated by the Company, participants are the beneficial owners of shares but not the registered owners, the voting rights are normally exercised at the discretion of the participants. No person holds securities in the Company carrying special rights with regard to control of the Company. The Company is not aware of any agreements between holders of securities that may result in restrictions on the transfer of securities or voting rights.

Significant agreements – change of control

There are a number of agreements that take effect, alter or terminate upon a change of control of the Company following a takeover bid, such as commercial contracts and joint venture agreements. None are considered to be significant in terms of their potential impact on the business of the Group as a whole. All of the Company's employee share incentive plans contain provisions relating to a change of control. Outstanding awards and options would normally vest and become exercisable on a change of control, subject to the satisfaction of any performance conditions and pro rata reduction as may be applicable under the rules of the employee share incentive plans.

Authority to purchase own shares

Details of shares purchased during 2018 are outlined above. At the 2019 AGM, shareholders will be asked to renew these authorities for another year and the resolution will once again propose a maximum aggregate number of ordinary shares which the Company can purchase of less than 10% of the issued ordinary share capital. Details are contained in the Notice of AGM available at www.aviva.com/agm. The Company held no treasury shares during the year or up to the date of this report.

Disclosure guidance and transparency rule 5 – major shareholders

The table below shows the holdings of major shareholders in the Company's issued ordinary share capital in accordance with the Disclosure Guidance and Transparency Rules as at 31 December 2018 and 6 March 2019.

Shareholding interest

Shareholder	At 31 December 2018		At 6 March 2019	
	Notified holdings	Nature of holding	Notified holdings	Nature of holding
BlackRock, Inc ¹	Above 5%	Indirect	Above 5%	Indirect

1 Holding includes holdings of subsidiaries.

Directors

The directors as at the date of this report, together with their biographical details and details of Board appointments, resignations and retirements during the year are shown earlier in the report.

The rules regarding the appointment and removal of directors are contained in the Company's Articles. Under the Articles, the Board can appoint additional directors or appoint a director to fill a casual vacancy. The new director must retire at the first AGM following their appointment and can only continue as a director if they are elected by shareholders at the AGM.

At no time during the year did any director hold a material interest in any contract of significance with the Company or any of its subsidiary undertakings other than an indemnity provision between each director and the Company and employment contracts between each executive director and a Group company. The Company has purchased and maintained throughout the year directors' and officers' liability insurance in respect of itself, its directors and others.

The Company has also executed deeds of indemnity for the benefit of each director of the Company, and each person who was a director of the Company during the year, in respect of liabilities that may attach to them in their capacity as directors of the Company or of associated companies. The Articles allow such indemnities to be granted. These indemnities were granted at different times according to the law in place at the time and where relevant are qualifying third-party indemnity provisions as defined by section 234 of the Companies Act 2006. These indemnities were in force throughout the year and are currently in force. Details of directors' remuneration, service contracts, employment contracts and interests in the shares of the Company are set out in the Directors' Remuneration Report.

The Company has also granted indemnities by way of a deed poll to the directors of the Group's subsidiary companies, including former directors who retired during the year and directors appointed during the year, which is a 'qualifying third party indemnity' for the purposes of the applicable sections 309A to 309C of the Companies Act 1985. The deed poll indemnity was in force throughout the year and remains in force.

Financial instruments

Group companies use financial instruments to manage certain types of risks, including those relating to credit, foreign currency exchange, cash flow, liquidity, interest rates, and equity and property prices. Details of the objectives and management of these instruments are contained in the risk and capital management section and in note 59 on risk management.

Political donations

Aviva did not make any political donations during 2018.

Disclosure of information to the auditor

In accordance with section 418 of the Companies Act 2006, the directors in office at the date of approval of this report confirm that, so far as they are each aware, there is no relevant audit information of which the Company's External Auditor, PricewaterhouseCoopers (PwC), is unaware and each director has taken all steps that ought to have been taken as a director in order to make themselves aware of any relevant audit information and to establish that PwC is aware of that information.

Annual general meeting

The 2019 AGM of the Company will be held on Thursday 23 May 2019 at the Queen Elizabeth II Centre, Broad Sanctuary, Westminster, London SW1P 3EE at 11am. The Notice of AGM convening the meeting describes the business to be conducted thereat. Any proxy voting instruction, whether provided online, by post or via CREST, must be received by our Registrar, Computershare Investor Services PLC, by no later than 11am on Tuesday 21 May 2019. Further details can be found in the shareholder information section of the Notice of AGM.

Articles of association

Unless expressly stated to the contrary in the Articles, the Company's Articles may only be amended by special resolution of the shareholders. The Company's current Articles were adopted on 10 May 2018.

Going concern

The Group's business activities, together with the factors likely to affect its future development, performance and position are set out

in the strategic report. The performance review includes the Risk and risk management section. In addition, the financial statements sections include notes on the Group's borrowings (note 52); its contingent liabilities and other risk factors (note 55); its capital management (note 57); management of its risks including market, credit and liquidity risk (note 59); and derivative financial instruments (note 60).

The Group has considerable financial resources together with a diversified business model, with a spread of businesses and geographical reach. The directors believe the Group is well placed to manage its business risks successfully.

After making enquiries, the directors have a reasonable expectation that the Company and the Group as a whole have adequate resources to continue in operational existence for a period of at least 12 months from the date of approval of the financial statements. For this reason, they continue to adopt, and to consider appropriate, the going concern basis in preparing the financial statements.

Longer-term viability statement

It is fundamental to the Group's longer-term strategy that the directors manage and monitor risk, taking into account all key risks the Group faces, including longer-term insurance risks, so that it can continue to meet its obligations to policyholders. The Group is also subject to extensive regulation and supervision including Solvency II from 1 January 2016, as a result of being designated a Global Systemically Important Insurer by the Financial Stability Board.

Against this background, the directors have assessed the prospects of the Group in accordance with provision C.2.2 of the 2016 Code, with reference to the Group's current position and prospects, its strategy, risk appetite, and the potential impact of the principal risks and how these are managed (as detailed in the 'Risk and risk management' section of the Strategic report as well as note 59 of the IFRS financial statements).

The assessment of the Group's prospects by the directors covers the three years to 2021 and is underpinned by management's 2019-2021 business plan which includes projections of the Group's capital, liquidity and solvency.

The Group's stress and scenario testing considers the Group's capacity to respond to a series of relevant financial, insurance (e.g., catastrophe) or operational shocks should future circumstances or events differ from these current assumptions. The Group addresses the impacts of contingent management actions designed to maintain or restore key capital, liquidity and solvency metrics to within the Group's approved risk appetites over the planning period.

Based on this assessment, the directors have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the three year assessment period.

Fair, balanced and understandable

To support the directors' statement below that the annual report and accounts, taken as a whole, is fair, balanced and understandable, the Board considered the process followed to draft the annual report and accounts:

- Each section of the annual report and accounts is prepared by a member of management with appropriate knowledge, seniority and experience. Each preparer receives guidance on the requirement for content included in the annual report and accounts to be fair, balanced and understandable
- The overall co-ordination of the production of the Annual report and accounts is overseen by the Chief Accounting Officer to ensure consistency across the document
- An extensive verification process is undertaken to ensure factual accuracy
- Comprehensive reviews of drafts of the annual report and accounts are undertaken by members of the Group Executive and

other members of senior management and, in relation to certain parts of the report external legal advisers and the External Auditor

- An advanced draft is considered and reviewed by the Disclosure Committee
- The final draft is reviewed by the Audit Committee prior to consideration by the Board
- Board members receive drafts of the Annual report and accounts for their review and input. This includes the opportunity to discuss the drafts with both management and the External Auditor, challenging the disclosures where appropriate.

Directors' responsibilities

The directors are responsible for preparing the Annual report and accounts, the directors' remuneration report and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have prepared the Group and parent company financial statements in accordance with IFRS as adopted by the EU. Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Company and of the profit or loss for that period. In preparing these financial statements, the directors are required to:

- select suitable accounting policies and apply them consistently
- make reasonable and prudent judgements and accounting estimates
- state whether applicable IFRSs as adopted by the EU have been followed, subject to any material departures disclosed and explained in the financial statements
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company and Group will continue in business.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and Group and enable them to ensure that the financial statements and the Directors' Remuneration Report comply with the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation. They are also responsible for safeguarding the assets of the Company and Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are responsible for making, and continuing to make, the Company's Annual report and accounts available on the Company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The directors consider that the Annual report and accounts, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's and the Company's position and performance, business model and strategy.

Each of the current Directors, whose names and functions are detailed in the 'Our Board of Directors' section in the Directors' and Corporate Governance report confirm that, to the best of their knowledge: the Group financial statements, which have been prepared in accordance with IFRSs as adopted by the EU, give a true and fair view of the assets, liabilities, financial position and profit of the Group; and the Strategic report and the Directors' and Corporate Governance report in this Annual report include a fair review of the development and performance of the business and the position of the Group, together with a description of the principal risks and uncertainties that it faces.

Listing requirements

For the purposes of Listing Rule (LR) 9.8.4C R, the information required to be disclosed by LR 9.8.4 R can be found in the following locations:

Section in LR 9.8.4C R	Topic	Location in the Annual report and accounts
12	Shareholder waivers of dividends	IFRS Financial Statements – note 34
13	Shareholder waivers of future dividends	IFRS Financial Statements – note 34

By order of the Board on 6 March 2019.

Tom Stoddard
Chief Financial Officer

[Directors' remuneration report](#)

Remuneration Committee report

On behalf of the Remuneration Committee (Committee), I am pleased to present the Directors' Remuneration Report (DRR), for the year ended 31 December 2018.

Company performance during 2018

2018 has been a year of steady performance overall for Aviva. The Group's businesses have delivered broad-based growth, with six out of our eight major markets increasing Group adjusted operating profit¹ in 2018, while continuing to invest in improving the fundamentals of the business and maintaining a prudent approach to pricing and risk management.

Aviva's progress in recent years has positioned the Group well, putting in place strong financial foundations from which to grow. Solvency II capital surplus remained strong, with an increase in the Group's cover ratio during 2018, despite weaker investment markets and the deployment of £1.5 billion to repay debt and repurchase shares. Profitability has also continued to grow, with Group adjusted operating profit¹ before tax rising 2%, while operating Earnings Per Share (EPS)² increased 7%. Aviva's continued financial strength and satisfactory performance has contributed to the Board proposing a 9% increase in the full-year dividend.

Externally, the Committee recognises that challenges remain. Uncertainty in the political and economic backdrop persists, while the regulatory environment also continues to evolve. Coupled with competitive insurance and savings markets, this has provided a challenging macro-environment for the Group.

There were certain challenges of our making during the year, including our announcement in March 2018 that we were "evaluating alternatives" for the Aviva plc and General Accident plc preference shares. While we responded quickly to certain investor concerns by confirming we would take no action, and put in place a goodwill payments scheme for eligible preference shareholders who incurred losses from selling these securities during this period, it was a disappointing episode and lessons have been learned.

In addition, there were operational challenges in the UK savings business, with UK platform migration issues adversely affecting service standards for customers, although our team worked quickly to resolve these challenges.

The Committee has carefully taken Group, business unit and the individual performance of the Executive Directors (ED) into account in reaching their decisions on remuneration for 2018. At all times we have sought to ensure that executive pay is aligned with Aviva's overall performance during the year.

Remuneration decisions for 2018

2018 Annual Bonus

In considering outcomes under the annual bonus scorecard, the Committee has reflected on the financial and strategic performance of the Group during 2018, including:

- Operating EPS², operating capital generation² and cash remittances² performance were strong, with out-turns on all three showing healthy year-on-year improvement.
- The Group continued its digital transformation in 2018. Growth of 47% in MyAviva active customers resulted in performance between threshold and target. The number of customers with Multiple Product Holdings (MPH) also grew, although performance was below threshold on this element, falling short of the stretching targets set by the Committee at the start of the year.

As a result of this performance, the formulaic outcome against the 2018 bonus scorecard prior to downward adjustments was 137.8% (out of a maximum of 200%).

Separately, however, the Committee was mindful that when the government announced its decision in February 2017 to reduce the Ogden rate³, the degree of uncertainty around where the rate would finally land meant that we delayed the impact on remuneration outcomes. On 20 March 2018 the Government announced it will introduce the Civil Liability Bill (Bill) which includes provisions to amend the Ogden discount rate. In December 2018, the Bill became an Act of Parliament, meaning that the new rate will be set by the Lord Chancellor in 2019. While there is certainty that there will be a change in the Ogden rate in 2019, uncertainty remains around the amount and timing of the final rate. In the Group accounts the claims reserves have been calculated using a discount rate of 0.0%, though the rate to be announced by the Lord Chancellor later this year may result in a different discount rate. The Committee is satisfied that it is appropriate now to reflect this change in the annual bonus pools for 2018.

Accordingly, the assumed discount rate of 0.0% in 2018 has reduced the outcome under the operating EPS² measure, resulting in a reduction in the bonus scorecard outcome of 31.3% (to 106.5%). Adjustments may be considered in future years should the final Ogden rate be different from 0.0%.

Under our remuneration framework, the annual bonus scorecard outcome is also subject to (i) a quality of earnings review, (ii) performance against non-financial modifiers focused on employee engagement, customer outcomes, and risk and controls, and (iii) individual performance. The Committee was satisfied that the quality of earnings assessment was appropriately robust, but determined that a 5% downward adjustment should be applied to the scorecard outcome (to 101.5%) under the Risk & Control modifier.

In its assessment of the individual performance of the EDs during the year, while the Committee recognised that strong performance was delivered in a number of areas with notable financial, strategic and other achievements across their scorecards, the Group experienced several events during 2018 which had an impact on our customers, our shareholders, and our broader stakeholder community. Firstly, we recognise the negative impact that our March 2018 announcement on preference shares had on the Group. Secondly, our UK savings business encountered disruption during the migration of our independent financial advisor platform to a new supplier, which adversely affected our service standards. Thirdly, the Committee is conscious that our oversight in some areas of the Canadian business fell below our high standards and contributed to the issues in financial performance experienced.

Taking these issues into account, the Committee applied a downward adjustment under the individual assessment of 17.5% of the scorecard outcome for all EDs.

1 Group adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to note B in the 'Accounting Policies' section and 'Other Information' within the Annual report and accounts for further information.

2 This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

3 The Ogden discount rate is set by the Lord Chancellor and is applied when calculating the present value of future care costs and loss of earnings for claims settlement purposes. In December 2018, the Civil Liability Bill became an Act of Parliament, and it includes a change in the way the Ogden discount rate is set. Although the rate remains uncertain, it is anticipated that the Government will set a discount rate which is higher than the current -0.75% rate. Aviva has adopted a rate of 0.0% within the full year 2018 reserves. For remuneration purposes, the net impact of the 2016 and 2018 rate changes are incorporated.

As a result, annual bonuses for the EDs were 84% of salary.

As a final check, the Committee reviewed whether the proposed annual bonuses aligned with the wider circumstances and performance context of the Group during 2018. The Committee were satisfied that no further adjustments were required, noting that there has been a 43% reduction in the overall annual bonus amount paid to the EDs (when measured on a like-for-like basis to reflect part-year service). The actions taken by the Committee to address the events of 2018 provide us with a strong platform for Maurice to take the Group forward in 2019.

2016-18 Long Term Incentive Plan (LTIP)

As a result of our three-year performance over the 2016-18 period, the 2016 LTIP vested at 50% of maximum. This reflected strong performance against the adjusted Return on Equity (RoE)¹ performance condition, while the relative Total Shareholder Return (TSR) condition lapsed. The outcome also reflects the impact of an assumed Ogden rate of 0.0%, although this made no difference to the final level of vesting.

Appointment of new Group Chief Executive Officer (CEO)

As announced on 4 March 2019, the Board appointed Maurice Tulloch as our new Group CEO with immediate effect. The Committee gave careful consideration to the remuneration package for Maurice, in doing so taking into account the terms of our Remuneration Policy (Policy), Maurice's current remuneration arrangements, shareholder expectations, and the provisions of the 2018 UK Corporate Governance Code (2018 Code).

Maurice's remuneration consists of:

- A salary of £975,000 per annum
- Our standard benefits package for EDs, including private family medical insurance, life insurance, and reasonable travel benefits
- Pension contributions of 14% of salary
- An annual bonus opportunity of 200% of salary, with one-third of any bonus earned paid in cash after the year end, and two-thirds deferred into shares which will vest in equal annual tranches over three years
- For 2019, Maurice will be eligible for the grant of an award under the LTIP of 300% of basic salary
- Assistance with relocation from Canada to the UK, of an amount up to £250,000 exclusive of tax, payable against receipted costs incurred within a period of 24 months from the date of appointment
- Maurice is also subject to the Group CEO shareholding requirement of 300% of salary

In approving these remuneration terms, the Committee has been mindful of the views of shareholders. Maurice's salary is below that for Mark prior to his departure, reflecting that Maurice is new to the role. We have also reduced Maurice's pension provision to align with the majority of our UK workforce, and he will not be eligible for a car allowance. Finally, Maurice's 2019 LTIP opportunity of 300% is lower than that permitted under our Policy, but in line with awards made in recent years.

Departure of Mark Wilson

On 9 October 2018, Mark stepped down as the Group CEO. The Committee carefully considered the treatment to be applied to Mark's remuneration arrangements as a result of his departure.

As announced on 9 October 2018, the Committee, in its discretion, determined that all of Mark's outstanding LTIP awards should lapse as at the date of departure. Mark retained his deferred bonus shares under the Annual Bonus Plan (ABP) as the Committee's view was that these had been earned based on previous performance under the ABP. All awards remain subject to malus and clawback.

Mark received an annual bonus in respect of 2018, pro-rated to reflect the period prior to being placed on garden leave, for six months, from 9 October 2018. His annual bonus was calculated in the same manner as for the continuing EDs, as outlined above. Mark is not eligible to receive an annual bonus in relation to 2019.

Upon appointment as Executive Chairman following the departure of Mark, Sir Adrian Montague assumed executive responsibilities. No changes were made to his existing remuneration arrangements or conditions during this period, and as such he was not eligible for an annual bonus or LTIP award in respect of 2018 or 2019.

Revised Corporate Governance Code

In July 2018, the Financial Reporting Council (FRC) published the 2018 Code. The Committee welcomes the 2018 Code and is pleased that in several areas our practice is already aligned with the new provisions. For example, approval of the remuneration for the Group Executive (GE) already falls within our remit; our Policy provides unfettered ability to apply discretion to incentive outcomes and; our malus and clawback provisions are aligned with those suggested under the 2018 Code.

Nevertheless, during the latter half of 2018, we discussed at length how the remaining provisions of the 2018 Code could be implemented in the most effective manner for the Company and all our stakeholders. To this end, we have made several changes and will continue to work towards identifying areas where our processes could be improved during 2019, as set out below:

- **Post-cessation shareholding guidelines:** the Committee recognises the importance of ensuring that our EDs are aligned with long-term shareholder interests. Our existing shareholding guidelines, which apply during employment, require EDs to build up and maintain an appropriate level of shareholding in Aviva. To complement these the Committee have reviewed a proposed policy for post employment shareholdings. This will be implemented during 2019 and align to developing market practice. The current expectation is that EDs will be required to hold shares for a further two years following their departure from the Group and this will also apply to the GE. We have set the post-cessation guideline at the same level as the current (within employment) guideline.
- **Wider workforce pay and conditions:** the Committee currently receives information from various sources in this area, but during 2019 we will work towards ensuring that we have access to a broader and more detailed suite of data regarding remuneration-related policies throughout the wider workforce, ensuring that this is appropriately taken into account when considering incentive outcomes for EDs. This is in addition to the various workforce engagement mechanics currently in operation.
- **Pensions:** as outlined above the Committee took into account the new guidance around pension provision in setting arrangements for Maurice upon appointment in March 2019, aligning his provisions with that for the majority of our UK workforce. We will continue to keep the position under review for our other EDs during 2019 and beyond.

CEO Pay Ratio

In addition to the changes introduced by the 2018 Code, last year also saw the introduction of the Companies (Miscellaneous Reporting) Regulations 2018, requiring UK companies to publish information on the pay ratio of the Group CEO to UK employees from 2019. We have chosen to voluntarily disclose this information for 2018 and further details can be found on page 81.

Gender Pay Gap Report (GPGR)

Last year we outlined our commitment to increasing the focus on our diversity agenda at Aviva and our ambition of achieving

¹ Adjusted RoE relate to the 2016 LTIP award only and represent RoE calculated as IFRS profit after tax and non-controlling interest but excluding investment variances, economic assumption changes, pension scheme income/charge over average IFRS equity (excluding pension scheme net surplus/ deficit).

inclusivity across the Group. This continues to be central to our values and critical to the success of our business. We welcomed the introduction of gender pay gap reporting last year and released our second GPGR in January 2019, along with details of actions we are taking to drive change and close the gender pay gap. The report can be found at www.aviva.com/gpgr.

Remuneration in 2019

Salary

Aside from Maurice, the other EDs received salary increases of 2% for 2019, consistent with other Aviva employees in the UK.

Bonus

Customer and financial outcomes continue to be the focus for the Company as critical drivers of our short and longer term success. Consequently, 70% of the bonus will continue to be based on financial performance, although we have changed the balance of the relative weightings, increasing the emphasis on cash remittances¹.

30% will remain subject to customer-focused measures. For 2019, we have revised these measures to align them with our current areas of focus as follows:

- Growth in MPH is retained as 10% of the overall annual bonus, as it is a key measure of our most valuable customers. Our research demonstrates that customers with more than one product tend to stay with us for longer.
- Relationship Net Promoter Score (RNPS) is introduced as the second measure in place of MyAviva active customers, accounting for 20% of the bonus. RNPS is an important measure of the quality of our interactions with customers, reflecting the extent to which our customers are willing to be an advocate for the Group and our brand. Performance will be measured in each of our key markets. The higher weighting of RNPS is to ensure that the primary driver for understanding progress in customer outcomes is derived from the views of our customers.

RNPS has been replaced within the Customer non-financial modifier with a measure of brand trust. The employee engagement and risk and control modifiers remain unchanged.

The Committee considers that these changes are important to ensure that remuneration is aligned with and supports our strategic focus on driving continuous improvement in our customer performance.

2019 LTIP

Award levels under the LTIP for EDs in 2019 will be in line with those in previous years. The Committee considers that the current performance measures remain fit for purpose and no changes are proposed for this year. As detailed in last year's report, as we move forward the Committee continues to keep under review the potential to base a portion of the LTIP award on strategic measures, with a view to supporting our focus in this area. Any change would only be made following appropriate consultation with our shareholders.

2019 focus areas

2019 promises to be another busy year for the Committee. We continue to place a strong emphasis on ensuring that remuneration at Aviva aligns with the overall performance of the Group and the experience of our shareholders. In addition, we will continue to develop our implementation of the 2018 Code, with a view to ensuring that any changes we make are fully aligned with the spirit of the Code's provisions and are appropriate for Aviva.

In terms of the broader remuneration framework, the current intention is to continue with our current Policy until the 2021

Annual General Meeting (AGM). Nevertheless, we will take on board the view of the new Group CEO on our current remuneration framework and whether it supports Maurice's vision for the next stage of Aviva's development. If, as a result of this, there is appetite to make any changes a year early in 2020 we would of course consult with shareholders on any proposals ahead of this.

I look forward to seeing shareholders at the 2019 AGM.

Patricia Cross

Chair of the Remuneration Committee
6 March 2019

¹ This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

Annual report on remuneration

This section of the report sets out how Aviva has implemented its Policy for EDs during the course of 2018. This is in accordance with the requirements of the Large & Medium Sized Companies and Groups (Accounts and Reports) Regulations 2008 (as amended).

The full terms of reference for the Committee can be found on the Company's website at www.aviva.com/remuneration-committee and are also available from the Group General Counsel and Company Secretary.

Committee membership

The members of the Committee are shown below. There have been no changes during 2018.

	Member Since	Years on the Committee
Patricia Cross ¹	01/12/2013	5
Michael Mire	14/05/2015	3
Claudia Arney	01/06/2016	2
Glyn Barker	10/05/2017	1

¹ Chair from 19 February 2014.

The Committee met seven times during 2018, of which four were scheduled meetings and three were additional meetings outside of the normal timetable. Details of attendance at Committee meetings are shown on page 48.

The Group Chairman attended all meetings of the Committee. The Group General Counsel and Company Secretary acted as secretary to the Committee. The Chair of the Committee reported to subsequent meetings of the Board on the Committee's work and the Board received a copy of the agenda and the minutes of each meeting of the Committee.

During the year, the Committee received assistance in considering executive remuneration from a number of senior managers, who attended certain meetings (or parts thereof) by invitation during the year, including:

- the former Group CEO;
- the Chief Financial Officer (CFO);
- the Chief People Officer;
- the Group Reward Director;
- the Chief Accounting Officer;
- the Chief Audit Officer;
- the Group Chief Risk Officer; and
- the Remuneration Committee Chair of Aviva Investors

No person was present during any discussion relating to their own remuneration.

During the year, the Committee received advice on executive remuneration matters from Deloitte LLP. Deloitte LLP were approved as advisors to the Committee in 2012 following a competitive tender process. The Committee regularly reviews and satisfies itself that the advice received from Deloitte LLP is independent and objective. The Committee notes they are a member of the Remuneration Consultants Group and adhere to its Code of Conduct. During the year, Deloitte LLP also provided advice to the Group on taxation, financial due diligence, risk, compliance and other consulting advisory services (including technology

transformation and cyber). Tapestry Compliance LLP, appointed by the Company, provided advice on share incentive plan related matters, including on senior executive remuneration matters and views on shareholder perspectives.

During the year, Deloitte LLP were paid fees totalling £141,600 and Tapestry Compliance LLP were paid fees totalling £60,630 for their advice to the Committee on these matters. Fees were charged on a time plus expenses basis.

The Committee reflects on the quality of the advice provided and whether it properly addresses the issues under consideration as part of its normal deliberations. The Committee is satisfied that the advice received during the year was objective and independent.

The Committee's decisions are taken in the context of the Reward Governance Framework, which sets out the key policies, guidelines and internal controls and is summarised on the next page.

Committee performance and effectiveness

During 2018, the Committee undertook an external evaluation of its effectiveness, alongside the exercise undertaken by the Board. Further details on how this has been carried out and the actions arising are contained in the Directors and Corporate Governance report.

Committee activities during 2018

Governance, regulatory issues and reporting policy

- Formulated and delivered a proposed new Policy, approved by shareholders at the 2018 AGM
- Focused on the alignment of the Policy with an appropriate risk culture and to appropriate sustainability metrics
- Engaged external advisors to advise on changes in the regulatory environment including the 2018 Code, and to benchmark the Company's remuneration policies and practices against industry best practice
- Approved our approach to the new requirements for CEO pay ratio reporting introduced by the Companies (Miscellaneous Reporting) Regulations 2018, and to other changes to reporting in remuneration
- Regularly reviewed the results of engagements with key investors, including discussions on the relationship between senior management remuneration policies and the Group's strategic objectives
- Reviewed and approved the Remuneration Governance Framework Policies
- Approved our 2018 GPGR and considered steps we could take to seek to decrease the gap
- Considered and agreed the remuneration package for the departing Group CEO and associated regulatory disclosures

Senior management objectives, bonus target setting and pay decisions

- Using external advisors, reviewed and benchmarked the EDs' remuneration in relation to their performance in 2018 and against both a FTSE 50 and a financial services peer group
- Reviewed and approved the individual remuneration for each member of the GE for 2018 in relation to their performance against personal targets
- Approved the Aviva Investors 2018 Bonus Deferral Plan and the identification of the Financial Conduct Authority (FCA) Remuneration Code Staff/Material Risk Takers
- Reviewed the Risk and Internal Audit 2018 Performance Opinion in relation to remuneration
- Discussed and approved the overall maximum bonus pool available to senior managers for the 2018 performance year, taking into account metrics on culture and risk as well as on financial performance
- Discussed and approved the ABP targets for 2018 in relation to the financial targets set in the 2018-2020 Group plan. Reviewed the strategic ambition targets set for 2018 in relation to the Company's Digital First strategy including the number of active digital registrations and the volume of sales made

Share plan operation and performance testing

- Reviewed performance testing of all existing LTIP awards, and approved targets for the 2018 LTIP awards
- Approved vesting of the 2015 LTIP and noted the interim testing for the 2016, 2017 and 2018 awards
- Reviewed the proposed changes to future LTIP grants
- Approved the terms of the Aviva Savings Related Share Option Scheme 2018 (SAYE) and the Aviva Ireland Save as You Earn Scheme, the Ireland Profit Share Scheme, and the invitation terms for eligible employees
- Reviewed and approved the Aviva Investors Carried Interest Plan, Deferred Plan rules and Code Staff list
- Reviewed and approved any application of malus/clawback provisions under incentive plans

Reward governance framework

Terms of reference, policies and guidelines					Control and assurance	
Terms of Reference	Remuneration Committee terms of reference Sets out the Committee’s scope and responsibilities, including authorities which may be delegated but which still retain Committee oversight				Remuneration Business Standard Assurance framework to attest Reward operations are conducted within the Global Remuneration Policy, Directors’ Remuneration Policy and supporting policies	Reward Approvals Matrix Approval requirements to ensure Reward operations are conducted within the Global Remuneration Policy, Directors’ Remuneration Policy and supporting policies
	Subsidiary Board Remuneration Committee terms of reference Sets out the Subsidiary Remuneration Committee’s scope and responsibilities					
Overarching Policy	Global Remuneration Policy Approved by the Remuneration Committee, applies to all employees in entities within Aviva Group		Directors’ Remuneration Policy Approved by the shareholders, applies to the Directors of Aviva plc			
Supporting Policies	Identification of Remuneration Regulated Staff	Variable Pay and Risk Adjustment (includes bonus, LTIP, buy-out, retention, recognition awards and funding)		Malus and clawback		
Internal Guidelines and non-Remuneration Committee approved policies (examples)	New Hires & Buyouts		Terminations	Risk Adjustment		
	Retention plans		Recognition Awards	Global Mobility		

Key

Element of the Reward Governance Framework managed as part of the business of the Committee



Element of the Reward Governance Framework managed mainly under delegated authority from the Committee

Single total figures of remuneration for 2018

The table below sets out the total remuneration for 2018 and 2017 for each of our EDs. Sir Adrian Montague remained on his Non-Executive Chairman remuneration arrangements while acting as Executive Chairman for the period 9 October 2018 to 31 December 2018. Given that he was not performing the role of Group CEO and did not receive a typical CEO remuneration package, he is not shown in this table, and is instead shown in table 9.

1 Total 2018 remuneration – Executive Directors (audited information)

	Former Executive Director Mark Wilson ⁶		Tom Stoddard		Andy Briggs		Maurice Tulloch ⁷		Total emoluments of Executive Directors ⁸	
	2018 £000	2017 £000	2018 £000	2017 £000	2018 £000	2017 £000	2018 £000	2017 £000	2018 £000	2017 £000
Basic Salary ¹	816	1,028	728	708	746	726	706	373	2,996	2,835
Benefits ²	99	107	85	86	44	53	51	39	279	285
Annual Bonus ³	692	1,945	616	997	632	1,022	598	456	2,538	4,420
LTIP ⁴	–	950	650	491	666	503	642	69	1,958	2,013
Pension ⁵	229	288	204	198	209	203	198	104	840	793
Total	1,836	4,318	2,283	2,480	2,297	2,507	2,195	1,041	8,611	10,346

1 Basic salary received during 2018.

2 The benefits disclosure includes the cost, where relevant, of private medical insurance, life insurance, accommodation, travel and car benefits. In the case of Mark and Andy this also includes benefits resulting from the UK HMRC tax-advantaged SAYE plan, and for Andy the UK HMRC tax-advantaged share incentive plan, the All Employee Share Ownership Plan (AESOP), in which they participate on the same basis as all eligible employees. All numbers disclosed include the tax charged on the benefits, where applicable.

3 Bonus payable in respect of the financial year including any deferred element at the face value at the date of award. The deferred element is made under the ABP.

4 The value of the LTIP for 2018 relates to the 2016 award, which had a three-year performance period ending 31 December 2018. 50% of the award will vest in March 2019. An assumed share price of 415.20 pence has been used to determine the value of the award based on the average share price over the final quarter of the 2018 financial year. In a similar manner, the LTIP amounts shown in last year's report in respect of the LTIPs awarded in 2015 were calculated with an assumed share price of 502.19 pence. The actual share price at vesting was 493.78 pence, and the table has been updated to reflect this change. The estimated value of the awards for the EDs was £2,046,000; the actual value was £2,013,000 (decrease of £33,000). Additional information on these awards can be found in Table 18.

5 Pension contributions consist of employer defined contribution benefits, excluding salary exchange contributions made by the employees, plus cash payments in lieu of pension. EDs are eligible to participate in a defined contribution plan and receive pension contributions and/or a cash pension allowance from the Company in aggregate totaling 28% of basic salary (14% of salary for Maurice following appointment as Group CEO). No ED has prospective entitlement to benefit in a defined benefit scheme.

6 Mark stepped down as Group CEO and left the Board on 9 October 2018; values for 2018 relate to the period whilst he was an ED. Details of Mark's leaving arrangements are set out on page 79.

7 For Maurice, his 2017 values only relate to his qualifying services as a Director of Aviva from 20 June 2017, when he was appointed as an ED. His basic salary, bonus and benefits are set in Canadian dollars and have been converted to sterling using an average exchange rate for 2018 of CAD 1.73.

8 Year on year decrease is primarily driven by the lower bonus outcomes and prorating of Mark and the lapse of his LTIP award.

Additional disclosures in respect of the single total figure of remuneration table

Malus and clawback

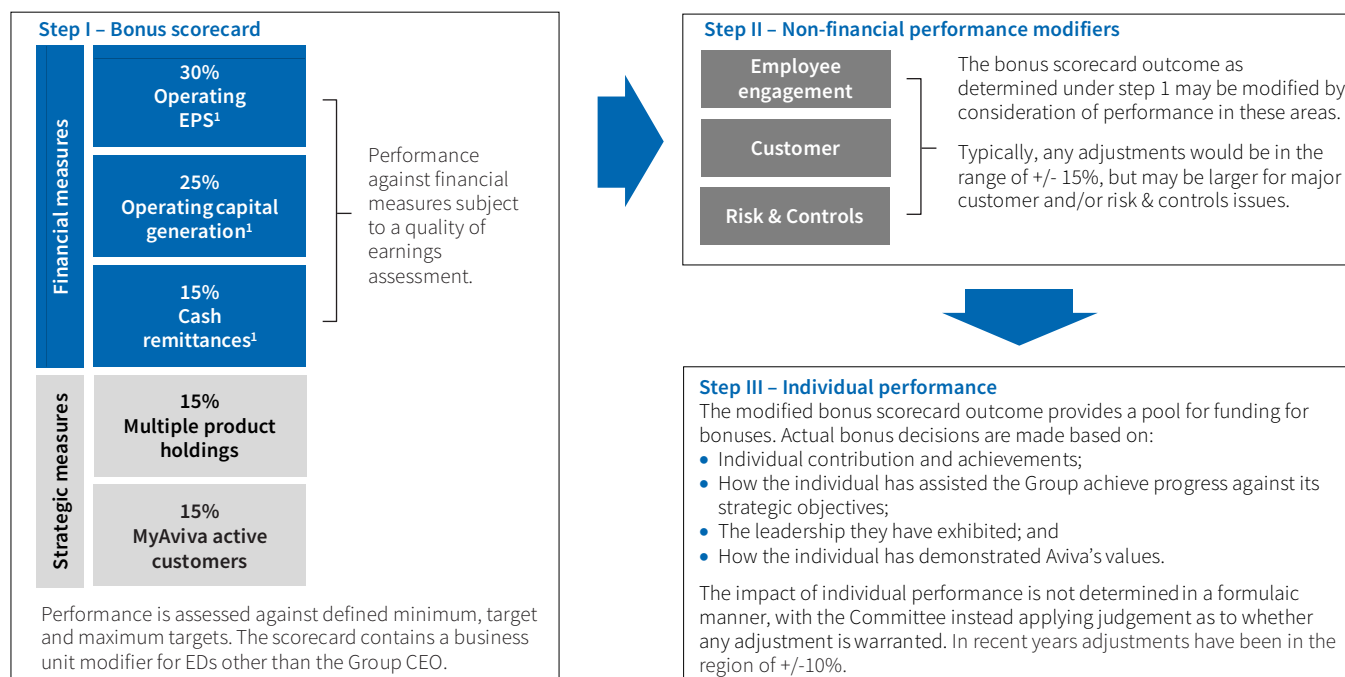
As part of the annual pay review process, the Committee has considered whether any recovery or withholding under the malus and clawback provisions of Aviva's incentive plans is required by any current circumstances. No incidents concerning the EDs are currently subject to action under Aviva's malus and clawback policy.

Other items of remuneration

The EDs have not received any items in the nature of remuneration other than those disclosed in table 1.

2018 annual bonus outcomes

The chart below summarises how our annual bonus operates.



Discretion

The Committee retains overarching discretion to adjust outcomes upwards or downwards in order to align remuneration for the overall performance of the Group and wider circumstances.

1 This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

Step 1 – Bonus scorecard

The table below sets out performance against financial and non-financial targets under the bonus scorecard. The overall scorecard outcome percentage applies to all of the EDs.

As outlined in the Chair's letter on page 68, the Committee was mindful that when the Government announced its decision in February 2017 to reduce the Ogden rate, the degree of uncertainty around where the rate would finally land meant that we delayed the impact on remuneration outcomes. On 20 March 2018 the Government announced it will introduce the Bill which includes provisions to amend the Ogden discount rate. In December 2018, the Bill became an Act of Parliament, meaning that the new rate will be set by the Lord Chancellor in 2019. While there is certainty that there will be a change in the Ogden rate in 2019, uncertainty remains around the amount and timing of the final rate. In the Group accounts the claims reserves have been calculated using a discount rate of 0.0%, though the rate to be announced by the Lord Chancellor later this year may result in a different discount rate. The Committee is satisfied that it is appropriate to reflect this change in the annual bonus pools for 2018.

Accordingly, the assumed discount rate of 0.0% in 2018 has reduced the outcome, under the operating EPS¹ measures, resulting in a reduction in the bonus scorecard outcome of 31.3% (to 106.5%). The Committee would highlight that adjustments may be considered in future years should the final Ogden rate be different from 0.0%.

2 2018 performance against bonus scorecard for Executive Directors' bonuses

Measure	Weighting	Minimum	Target	Maximum	Pre-Ogden outcome	Post-Ogden outcome	Outcome
Financial measures (70% of total)							
Operating EPS ¹	30.0%	51.2p	55.4p	59.6p	58.2p	52.5p	19.7%
Cash remittances ¹	15.0%	£2,753m	£2,976m	£3,199m	£3,137m	£3,137m	50.0%
Operating capital generation ¹	25.0%	£1,848m	£2,048m	£2,248m	£3,200m	£3,200m	25.8%
Total financial measures	70.0%	—	—	—	—	—	95.5%
Strategic measures (30% of total)							
MPH (% growth)	15.0%	3.0%	6.0%	9.0%	0.4%	0.4%	0.0%
MyAviva active customers (m)	15.0%	4.9m	5.7m	6.5m	5.3m	5.3m	11.0%
Total strategic measures	30.0%	—	—	—	—	—	11.0%
Scorecard outcome	100.0%						106.5%

¹ This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

¹ This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

Step II – Non-financial performance modifiers

The Committee considered Group performance against the non-financial modifiers set out below, the outcome of which may result in an adjustment to the bonus scorecard outcome if considered appropriate.

3 2018 non-financial modifiers relating to bonus scorecard

Modifier	Assessment
Employee Employee engagement.	Employee engagement is up one percentage point to 76% with continued notable improvements in UK Insurance (UKI), France and Finance, although slightly down in Canada and Ireland after integration and restructuring in those markets. There have been strong improvements in culture in many parts of the business through initiatives taken to tackle complexity, simplify ways of working and develop innovative solutions that improve the customer experience.
Customer Performance against our RNPS targets and our overall focus on customer outcomes.	Our RNPS survey shows three years of sustained high levels of customer advocacy, with modest improvements in the last 12 months. We are working hard to recognise customer loyalty by keeping things simple for customers and putting them in control, for example, with the launch of AvivaPlus.
Risk & Controls Aviva's reward strategy includes specific risk and control objectives for senior management and EDs. The aim is to help drive and reward effective risk management and a robust control environment across the Group.	Most of our businesses/functions were rated as not falling short, against their overall goal in relation to risk, conduct and control outcomes. The assessments performed by our Risk and Internal Audit functions looked at the effectiveness and robustness of the risk framework and control environment. The outputs of the assessments were shared with the Risk and Audit Committees ahead of decisions being made on impacts to bonus. It was concluded that some specific business areas had been identified that would warrant bonus pool adjustments as part of determining incentive awards for 2018. As a result, the Committee applied a downward adjustment of 5% to the bonus scorecard outcome in respect of this modifier.

The bonus scorecard outcome was revised to 101.5%.

Step III – Individual performance

The Committee assessed EDs on their individual performance in the year. Details of each individual's achievements are set out in the table below.

Mark Wilson

Mark was Group CEO until 8 October 2018. Over this period Mark led the organisation to deliver strong financial results, continued progress on improving the culture and employee engagement, and oversaw our IT roadmap. There were a number of notable milestones in 2018:

- Achieved 9% Group adjusted operating profit¹ growth in our international markets, 7% in the UK, and 14% in Singapore
- Continued strong balance sheet management, with the Solvency II shareholder cover ratio² well above the working range at 204%
- Robust execution of key IT deliveries, including Cloud migrations and IT service improvements
- Improved employee engagement and positive shift in our culture
- Continued progress towards our digital ambitions, including AvivaPlus, providing a solution to the UK market practice of pricing new business below that of renewing business and the launch of Blue, our joint venture with Hillhouse and Tencent in Hong Kong
- Completed the acquisition of Friends First in Ireland, and the divestment of our businesses in Taiwan and Spain. In addition, completed a £600 million share repurchase programme, the redemption of €500 million Tier 2 debt instrument and redeemed US\$575 million Friends Life Holdings Plc subordinated notes

Tom Stoddard

Tom continued to provide strong leadership to the finance function and was critical to many initiatives that supported delivery of the Group's strategy, including:

- Delivered growth in operating EPS² and cash dividends consistent with the Group's targets, while increasing the Group's overall Solvency II shareholder cover ratio² and returning £1.5 billion of capital to investors
- Extended oversight of the finance function to coordinate improved delivery of Operational Risk and Control Management (ORCM) throughout the business
- Drove the implementation of Zero Based Budgeting concepts into the organisation to benefit future results
- Executed capital management actions including completing the share repurchase programme, completion of several M&A transactions and a reduction in our debt profile
- Led the finance functional change programme in response to IFRS 17 and the need to modernise finance IT systems
- Sponsored the new Aviva 'Origins' community to promote diversity and inclusion in respect of race, ethnicity, religion, and social mobility

Andy Briggs

Andy is the CEO of Aviva UKI combining our UK based life, General Insurance (GI) and health businesses. Andy provided strong leadership in the UK throughout 2018 and key deliveries included:

- Strong financial performance in UKI with adjusted operating profit¹ growth of 7% strong capital generation and cash remittances² up 42% to £2.6 billion despite market headwinds in personal lines
- Improved employee engagement, empowering colleagues to simplify and put the customer at the heart of decision-making
- Continued progress made via True Customer Composite (TCC) among corporate customers. Strong growth in workplace pensions, bulk annuities, with our largest ever schemes in both these, and in commercial and corporate GI
- Launched AvivaPlus, which will provide a solution to the UK market practice of pricing new business below that of renewing business
- Strong balance sheet management
- Sponsored the 'Generations' community to promote a culture where age is not a barrier to achievement

Maurice Tulloch

As CEO International, Maurice provided strong leadership, with some notable achievements:

- Achieved 9% adjusted operating profit¹ growth across International markets
- Appointed new CEOs and rolled out new strategies in Italy and Canada resulting in strong net flows in Italy, and a positive shift in business mix, diversified distribution and increased efficiency
- The recovery in the Canadian business is on track and accelerating to deliver sub 96% target combined operating ratio² by 2020
- Continued growth and execution of our strategy in France with a significantly improved capital position and balance sheet, new customer proposition ("Client Unique"), and a single customer point serving all customer demands
- Growth continued in Ireland with the financial benefits of integrating Friends First. The Brexit transformation is on track with Part VII transfers underway
- Achieved significant top and bottom line growth in Global Corporate & Specialty and strong progress towards our strategic aims
- Improved employee engagement and oversaw a positive shift in our culture across European markets; France, Italy and Poland. Maintained engagement through periods of change in other markets
- Maurice is proactively involved in the Aviva 'Carers' Community and is the sponsor for the Global Graduate Scheme

Notwithstanding these achievements, the Committee was conscious that the Group experienced several events during 2018 which had an impact on our customers, our shareholders, and our broader stakeholder community. Firstly, we recognise the negative impact that our March 2018 announcement on preference shares had on the Group. Secondly, it is recognised that our UK savings business encountered disruption during the migration of our independent adviser platform to a new supplier, which adversely affected our service standards. Thirdly, the Committee is conscious that our oversight in some areas of the Canadian business fell below our high standards and contributed to the issues in the financial performance experienced.

These issues were all taken into account in the individual performance assessments for the EDs and reflected in their annual bonuses. This resulted in a downward adjustment of 17.5% to the scorecard outcome for all EDs. As a result, annual bonuses for the EDs were 84% of salary.

Table 4 provides further detail of how these adjustments have been applied.

¹ Group adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to note B in the 'Accounting Policies' section and 'Other Information' within the Annual report and accounts for further information.

² This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

4 2018 bonus outcomes for Executive Directors

	Mark Wilson	Tom Stoddard	Andy Briggs	Maurice Tulloch
Bonus scorecard (0% – 200%)				
Pre-Ogden ¹	137.8%	137.8%	137.8%	137.8%
– Ogden	(31.3%)	(31.3%)	(31.3%)	(31.3%)
– Non-financial modifiers	(5.0%)	(5.0%)	(5.0%)	(5.0%)
– Individual adjustment	(17.5%)	(17.5%)	(17.5%)	(17.5%)
Final Outcome	84.0%	84.0%	84.0%	84.0%
Target opportunity	100% of salary	100% of salary	100% of salary	100% of salary
Maximum opportunity	200% of salary	150% of salary	150% of salary	150% of salary
Final bonus outcomes				
– % of salary	84.0%	84.0%	84.0%	84.0%
– % of maximum	42.0%	56.0%	56.0%	56.0%
– £ amount	£691,608 ²	£616,022	£631,596	£602,817

¹ This outcome includes the financial impact of the goodwill payment scheme in relation to preference shareholders, which had the effect of reducing IFRS operating EPS by 0.2p and the overall bonus scorecard outcome by 0.7% (from 138.5% to 137.8%).

² This outcome is pro-rated to reflect the time served in the Group CEO role.

Discretion

The Committee is conscious of the provisions of the 2018 Code, with remuneration committees being encouraged to review incentive outcomes against individual and company performance, together with any wider circumstances, and to exercise independent judgement and discretion in relation to remuneration outcomes. This reflects our current practice at Aviva. Taking into account the impact of the assumed discount rate of 0.0%, the outcome of the quality of earnings assessment and the non-financial modifiers, and an assessment of individual performance, the Committee is of the view that these outcomes appropriately reflect the overall performance of Aviva during the year and are aligned with the experience of shareholders over this period. Compared to 2017, there has been a 43% reduction in the overall annual bonus amount paid to the EDs (when measured on a like-for-like basis to reflect part-year service).

2016 LTIP vesting in respect of performance period 2016-2018

All references to adjusted RoE relate to the 2016 LTIP award only and represent RoE calculated as IFRS profit after tax and non-controlling interest but excluding investment variances, economic assumption changes, pension scheme income/ charge over average IFRS equity (excluding pension scheme net surplus/ deficit). The adjusted RoE¹ and TSR² outcome for the 2016 LTIP are detailed in the table below. 50% of the award will vest in March 2019.

5 2016 LTIP award – performance conditions

	Weighting	Threshold (20% vest)	Maximum (100% vest)	Outcome	Vesting (% of maximum)
Adjusted RoE Performance	50%	24.5%	30%	31.8%	100%
Relative TSR Performance	50%	Median	Upper quintile and above	13/14	0%

¹ 2016 adjusted RoE performance outcome excludes the positive impact of the £300m share buy-back, increasing shareholders' equity, and further excludes the re-measurement loss on Friends Provident International which will be recognised in 2019 upon completion of the sale.

² TSR is a measure of share price growth, calculated as the difference between the share price at the vesting date and the 90 day average for the period immediately preceeding the start of the three year performance period.

Quality of earnings assessment – 2018 remuneration decisions

The Committee discussed those items that impacted the overall results in 2018 including foreign exchange, acquisitions and disposals, life assumption and modelling changes, prior year reserve development, and other items that are non-recurring in nature. This process provides the Committee with an understanding of the core profitability of the business taking these factors into account.

The 2016 LTIP vesting outcome also reflects the impact of an assumed Ogden rate of 0.0%, although it made no difference to the final level of vesting.

6 Awards granted during the year (audited information)

Share and option awards granted to EDs during the year are set out below.

	Date of Award	Award Type ¹	Face Value (% of basic salary) ²	Face Value (£) ²	Threshold Performance (% of face value)	Maximum Performance (% of face value)	End of performance period	End of vesting/holding period
Mark Wilson	11 May 2018	LTIP ³	300%	£3,103,904	20%	100%	31 Dec 2020	26 Mar 2023
	26 Mar 2018	ABP	125%	£1,296,742	N/A			26 Mar 2021
Tom Stoddard	11 May 2018	LTIP	225%	£1,601,999	20%	100%	31 Dec 2020	26 Mar 2023
	26 Mar 2018	ABP	93%	£664,529	N/A			26 Mar 2021
Andy Briggs	11 May 2018	LTIP	225%	£1,642,496	20%	100%	31 Dec 2020	26 Mar 2023
	26 Mar 2018	ABP	93%	£681,332	N/A			26 Mar 2021
	14 Oct 2016	AESOP	0.39%	£3,005	N/A			12 Dec 2021
Maurice Tulloch	11 May 2018	LTIP	225%	£1,556,750	20%	100%	31 Dec 2020	27 Mar 2023
	26 Mar 2018	ABP	80%	£557,066	N/A			27 Mar 2021

1 ABP and LTIP awards have been granted as share awards. The LTIP is a conditional right to receive shares based on a three-year performance period, with an additional two-year holding period. ABP represents the portion of the 2017 bonus deferred into shares for three years. Shares issued in lieu of dividends accrue on ABP and LTIP awards during the ABP deferral period and the LTIP performance period. AESOP includes partnership, matching and dividend share awards which vest after three years. Further details are provided in Tables 16 and 18.

2 Face value for the awards granted on 26 March 2018 has been calculated using the average of the middle-market closing price of an Aviva ordinary share on the three consecutive business days immediately preceding the main date of grant, on 26 March 2018 of 504.00 pence. AESOP has been calculated using the average price achieved at purchase of the partnership shares throughout 2018 of 483.00 pence.

3 Mark's 2018 LTIP award ceased to be capable of vesting on 9 October 2018 when he stepped down as Group CEO and will lapse when he leaves the Company.

Operating EPS¹ targets for awards made in 2018

Operating EPS¹ performance determines the vesting of 50% of the LTIP award. Three-year targets are set annually within the context of the Company's strategic plan. The 2018 targets are provided below.

7 2018 LTIP operating EPS¹ targets

Achievement of Operating EPS ¹ targets over the three-year performance period	Percentage of shares in award that vests based on achievement of Operating EPS ¹ targets
Less than 4% p.a.	0%
4% p.a.	10%
Between 4% p.a. and 10.0% p.a.	Pro-rata between 10% and 50% on a straight line basis
10% p.a. and above	50%

Any vesting of the operating EPS¹ element of the LTIP is subject to two gateway hurdles – RoE¹ and Solvency II shareholder cover ratio¹. The RoE¹ hurdle is 12% p.a. and the Solvency II shareholder cover ratio¹ is to meet or exceed the minimum of the stated working range (in 2018, this was 150% to 180%).

TSR targets for awards made in 2018

Relative TSR performance determines the vesting of the other 50% of the LTIP award. For the 2018 grant, Aviva's TSR performance will be assessed against that of the following companies: Aegon, Allianz, Assicurazioni Generali, AXA, CNP Assurances, Direct Line Group, Legal & General, Lloyds Banking Group, Old Mutual, Phoenix, Prudential, RSA, Standard Life Aberdeen and Zurich Insurance.

The performance period for the TSR performance condition is the three years beginning 1 January 2018. For the purposes of measuring the TSR performance condition, the Company's TSR and that of the comparator group will be based on the 90-day average TSR for the period immediately preceding the start and end of the performance period. The vesting schedule is set out in the table below.

8 TSR vesting schedule for the 2018 LTIP award

TSR position over the three-year performance period	Percentage of shares in award that vest based on achievement of TSR targets
Below median	0%
Median	10%
Between median and upper quintile	Pro-rata between 10% and 50% on a straight line basis
Upper quintile and above	50%

New Group CEO appointment

As announced on 4 March 2019, the Board appointed Maurice Tulloch as our new Group CEO with immediate effect. Maurice's remuneration as Group CEO is in accordance with our Policy, as approved by shareholders at our 2018 AGM, and consists of:

- A salary of £975,000 per annum
- Our standard benefits package for executive directors, including private family medical insurance, life insurance, and reasonable travel benefits
- Pension contributions of 14% of salary, in line with the majority of our UK workforce
- An annual bonus opportunity of 200% of salary, with one-third of any bonus earned paid in cash after the year end, and two-thirds deferred into shares which will vest in equal annual tranches over three years. His annual bonus opportunity for 2019 will be pro-rated to reflect the time spent in each role.
- Maurice will be eligible for the grant of an award under the LTIP for 2019 of 300% of basic salary
- In taking on the role of Group CEO, Maurice is relocating from Canada to the UK. He will receive assistance with this relocation, of an amount up to £250,000 exclusive of tax, payable against receipted costs incurred within a period of 24 months from the date of appointment. Maurice is also subject to the Group CEO shareholding requirement of 300% of salary.

1 This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the annual report and accounts.

Payments to past directors (audited information)

Russell Walls retired from the Board with effect from 8 May 2013.

- Russell was appointed as a Non-Executive Director (NED) of Aviva Italia Holdings S.p.A on 4 December 2014 and on 30 April 2015 was appointed as Chair
- On 13 April 2015 Russell was appointed as a NED of Aviva Annuity UK Limited, Aviva Life Holdings UK Limited, Aviva Life & Pensions UK Limited, Friends Life and Pensions Limited and Friends Life Limited each of which are subsidiary companies of Aviva plc. Russell subsequently stepped down from all these boards on 28 February 2018
- On 31 October 2017 Russell was also appointed as a NED of Aviva Insurance Limited (AIL), also a subsidiary company of Aviva plc. Russell subsequently stepped down from AIL on 28 February 2018
- The emoluments he received in respect of all these directorships for the 2018 financial year were £35,000 and €90,000 (as Chair of Aviva Italia Holdings S.p.A)

Payments for loss of office (audited information)

We announced on 9 October 2018 that the Board had agreed with Mark that he would step down as Group CEO and as a Director of the Company with immediate effect. Mark was placed on garden leave for six months with effect from 9 October 2018. During this period, he continues to receive his salary and contractual benefits. For the remainder of 2018, these amounts totalled £319,866. At the end of his garden leave period (9 April 2019), Mark's employment will terminate and the Company, at its discretion, will make a payment in lieu of notice of six months basic salary, pension entitlement and contractual benefits in monthly instalments, over the remainder of his contractual 12-month notice period. We expect Mark to mitigate his loss during the last six months of this notice period, by seeking alternative employment, or engagement. The total amount during 2019 in respect of the remainder of Mark's garden leave and payment in lieu of notice is expected to be £1,102,954. This includes the continued provision of Mark's private medical insurance, on the same terms, for the remainder of his contractual notice period. The total value of this benefit is anticipated to be in the region of £30,000.

Mark received a pro-rated bonus in respect of 2018, reflecting the portion of the year worked prior to going on garden leave. No bonus will be payable in relation to 2019.

Mark's unvested LTIP awards ceased to be capable of vesting on 9 October 2018 and no further LTIP awards will be made. Mark's 2015 LTIP award, which had already vested at the point of departure remains subject to the additional holding period. His outstanding deferred share awards under the ABP will continue and will vest on the normal vesting dates. All awards will remain subject to malus and clawback.

In line with Policy, Mark will be entitled to a capped contribution of £10,000 (excluding VAT) towards legal fees incurred in connection with his departure.

9 Total 2018 remuneration for Non-Executive Directors (audited information)

The table below sets out the total remuneration earned by each NED who served during 2018 for Group-related activities.

	Fees		Benefits ¹		Aviva plc total		Subsidiaries fees		Group total	
	2018 £000	2017 £000	2018 £000	2017 £000	2018 £000	2017 £000	2018 £000	2017 £000	2018 £000	2017 £000
Chairman										
Sir Adrian Montague	550	550	88	67	638	617	—	—	638	617
Non-Executive Directors										
Claudia Arney ²	155	140	2	1	157	141	78	40	235	181
Glyn Barker	168	164	3	3	171	167	—	—	171	167
Patricia Cross	128	128	—	—	128	128	60	53	188	181
Belén Romana García	105	105	10	8	115	113	40	1	155	114
Michael Hawker	138	138	—	—	138	138	—	15	138	153
Michael Mire	118	117	1	1	119	118	—	—	119	118
Keith Williams	150	124	2	3	152	127	—	—	152	127
Total emoluments of NEDs	1,512	1,466	106	83	1,618	1,549	178	109	1,796	1,658

1 Benefits include the gross taxable value of expenses relating to accommodation, travel and other expenses incurred on Company business in accordance with our expense policy and may vary year-on-year dependent on the time required to be spent in the UK.

2 The 2018 Aviva plc fee payment includes £15,000 in arrears from Risk Committee fees which were omitted from payment in 2017 and paid in Q1 2018. The 2018 subsidiaries fees includes £7,345 in arrears from 2017 Chair fees paid in 2018.

The Aviva plc total amount paid to NEDs in 2018 was £1,618,000 which is within the limits set in the Company's Articles of Association, as previously approved by shareholders.

Subsidiary company board memberships

During the year, the following NEDs were appointed as directors of subsidiary companies to support and further enhance the flow of information between material subsidiaries and the Group. The additional emoluments received in respect of these roles are detailed below:

- Claudia Arney received an additional fee of £78,346 (2017: £40,000) in respect of her duties as Non-Executive Chairman and Conduct Committee member of Aviva UK Digital Limited
- Patricia Cross received an additional fee of £60,000 (2017: £52,808) in respect of her duties as Senior Independent Director of Aviva Investors Holdings Limited
- Belén Romana García received an additional fee of €44,712 (2017: €1,068) in respect of her duties as a Board member of Aviva Italia Holding S.p.A., and as a committee member of the Audit and Risk Committees. Belén joined the Board on 19 December 2017
- Sir Adrian Montague became a director of Aviva Group Holdings Ltd on 9 October 2018. He received no fees in respect of this appointment

Percentage change in remuneration of the former Group CEO

The table below sets out the increase in the basic salary, bonus and benefits of the former Group CEO and that of the wider workforce. The UK employee workforce was chosen as a suitable comparator group, as the former Group CEO and the majority of EDs are based in the UK (albeit with global responsibilities), and pay changes across the Group vary widely depending on local market conditions. Given that he served for a part-year only in 2018, the former Group CEO's pay for the year has been annualised so as to provide an appropriate comparison with 2017.

10 Percentage change in remuneration of former Group CEO

	% change in basic salary 2017-2018	% change in bonus 2017-2018	% change in benefits 2017-2018
Former Group CEO ¹	3.0%	-53.8%	13.5%
All UK-based employees ²	6.1%	0.4%	-5.2%

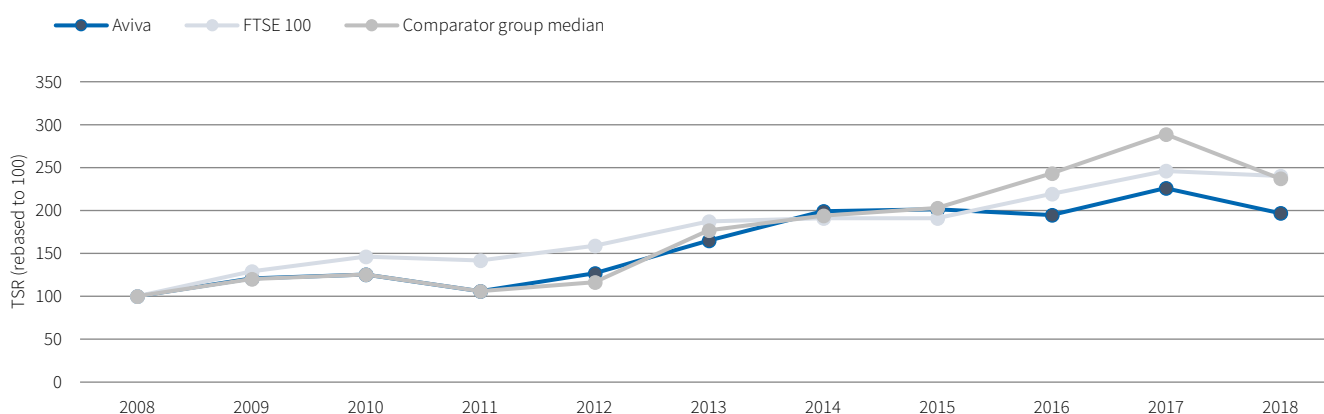
¹ Salary, annual bonus and benefit amounts for 2018 for the former Group CEO have been pro-rated up to reflect what they would have been over a full 12-month period. This provides a comparable basis with 2017.

² In terms of the UK based employee figures, the increase shown for salary and the decrease in benefits reflects that car allowances were rolled up into salaries during 2018.

Historical TSR performance and Group CEO remuneration outcomes

Table 11 compares the TSR performance of the Company over the past ten years against the TSR of the FTSE 100. This index has been chosen because it is a recognised equity market index of which Aviva is a member. In addition, median TSR performance for the LTIP comparator group has been shown. The companies which comprise the current LTIP comparator group for TSR purposes are listed above Table 8.

11 Aviva plc ten-year TSR performance against the FTSE 100 and the median of the comparator group



The table below summarises the historical Group CEO single figure for total remuneration, and annual bonus and LTIP outcomes as a percentage of maximum over this period.

12 Historical Group CEO remuneration outcomes

	Group CEO	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Annual bonus payout (as a % of maximum opportunity)	Mark Wilson ¹	—	—	—	—	75.0%	86.7%	91.0%	91.0%	94.0%	42%
	Andrew Moss ²	74.2%	74.3%	81%	—	—	—	—	—	—	—
LTIP vesting (as a % of maximum opportunity)	Mark Wilson	—	—	—	—	—	—	53%	41.3%	36.9%	—
	Andrew Moss	50.0%	72.3%	81.7%	—	—	—	—	—	—	—
Group CEO single figure of remuneration (£000)	Mark Wilson	—	—	—	—	2,615	2,600	5,438	4,523	4,334	1,836
	Andrew Moss	2,591	2,748	3,477	554	—	—	—	—	—	—

¹ Mark joined the Board as an ED with effect from 1 December 2012 and became Group CEO on 1 January 2013. Mark stepped down as Group CEO and left the Board on 9 October 2018.

² Andrew resigned from the Board with effect from 8 May 2012 and left the Company on 31 May 2012.

Sir Adrian Montague remained on his Non-Executive Chairman remuneration arrangements while acting as Executive Chairman for the period 9 October 2018 to 31 December 2018. Given that he was not performing the role of Group CEO and did not receive a typical CEO remuneration package, he is not shown in this table.

Pay ratio reporting

New UK legislation requires companies to publish information on the pay ratio of the Group CEO to UK employees. While formally taking effect from our next reporting year, we have chosen to voluntarily disclose this information a year early as we recognise that it is important to take a lead in this area and some shareholders may find the information to be a useful reference point. In line with the new regulatory requirements, the table below sets out the ratio at median, 25th and 75th percentile of the total remuneration received by the Group CEO compared to the total remuneration received by our UK employees. Total remuneration reflects all remuneration received by an individual in respect of the relevant years, and includes salary, benefits, pension, and value received from incentive plans.

13 Pay ratio table

Year	Method	P25 (lower quartile)	P50 (median)	P75 (upper quartile)
2018	Option A	76:1	53:1	32:1

We would highlight the following in terms of the approach taken:

- In calculating the Group CEO data, we have used an aggregated figure which is the sum of the amount shown in the single figure table for Mark (£1,835,716) in respect of his services from the start of the year to 8 October 2018, and the pro rata fees paid to Sir Adrian Montague in his role as Executive Chairman for the period 9 October to 31 December 2018. This approach is consistent with legislative requirements that will apply from next year. However, recognising that 2018 is an atypical year for Aviva, we have also provided an additional ratio below, calculated on a full-year basis using total target remuneration for Mark
- The lower quartile, median and upper quartile employees were calculated based on full-time equivalent data as at 31 December 2018
- Out of the three alternatives available for calculating the ratio, we chose to use Option A as it is considered to be the most accurate way of identifying employees at P25, P50 and P75, and is aligned with investor expectations. Under this approach we calculate total remuneration on a full-time equivalent basis for all of our UK employees and rank them accordingly

The table below provides further information on the total remuneration figure used for each quartile employee, and the salary component within this.

14 Salary and total remuneration used in the pay ratio calculations

Year	Pay element	P25 (lower quartile)	P50 (median)	P75 (upper quartile)
	Salary	£21,309	£30,404	£51,769
2018	Total remuneration	£25,969	£37,454	£62,528

In reviewing the employee pay data, the Committee is comfortable that the P25, P50 and P75 individuals identified appropriately reflect the employee pay profile at those quartiles, and that the overall picture presented by the ratios is consistent with our pay, reward and progression policies for UK employees.

As referred to above, we recognise that 2018 is an unusual year for Aviva resulting in a Group CEO pay ratio which is likely to be lower than we might typically expect. Shareholders may find it helpful to consider what the ratio might have been in a more normal year, recognising that the ratio may well vary significantly from year-to-year. Specifically, we have considered the ratio if Mark had been employed for the full year and had received an on-target annual bonus of 100% of salary (half of maximum) and LTIP vesting at 150% of salary (half of maximum).

These circumstances would lead to a total single figure for the Group CEO of £4,139,784 and the following Group CEO pay ratios.

Year	P25 (lower quartile)	P50 (median)	P75 (upper quartile)
2018 (illustrative based on a notional 'target' package)	159:1	111:1	66:1

At Aviva, we consider that we are equally focused on our colleagues as we are on our customers. We work hard to recognise the individual needs of colleagues, in just the same manner as we do for our customers. In this context, we are proud of the reward, benefits and overall career packages that we offer our colleagues:

- In the UK, we have been an accredited Living Wage employer since April 2014
- We have a structured salary progression scheme for our frontline colleagues, providing incremental salary increases over the first few years in role as individuals develop and gain experience
- We conduct regular market reviews of our salary ranges in order to maintain competitiveness to market rates, and we move everyone who is below a band to at least the minimum of that range each year
- We have a comprehensive flexible benefits offering, providing colleagues with the opportunity to select the benefits that matter most to them
- Our competitive pension scheme provides a top rate employer contribution of 14% of salary (subject to the level of employee contribution). Above this level, we share employer National Insurance savings with our colleagues
- Our broader Wellbeing offering aims to promote health and wellness among our colleagues. We listen to colleagues and focus in-depth on a new area each year depending on the feedback we receive. During 2018, for example, our programme had a particular emphasis on financial education
- UK colleagues are eligible to participate in our SAYE and AESOP offerings. These are tax-efficient share plans that allow our UK colleagues to share in the success of Aviva. We also have similar plans operating for many of our overseas colleagues. We are proud of the participation rates in these plans, with over 50% of UK employees participating in the SAYE and over 70% in the AESOP

Relative importance of spend on pay

Table 15 outlines Group adjusted operating profit¹, dividends paid to shareholders and share buy-backs, compared to overall spend on pay in total. This measure of profit has been chosen as it is used for decision-making and the internal performance management of the Group's operating segments.

¹ Group adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to note B in the 'Accounting Policies' section and 'Other Information' within the Annual report and accounts for further information.

15 Relative importance of spend on pay

	Year end 31 December 2016 £m	Year end 31 December 2017 £m	Year end 31 December 2018 £m	% change between 2017 & 2018
Group adjusted operating profit ¹	3,010	3,068	3,116	2%
Dividends paid ²	871	983	1,128	15%
Share buy-backs ³	—	300	600	100%
Total staff costs ⁴	1,764	1,942	1,974	1%

1 Group adjusted operating profit is an Alternative Performance Measure (APM) which is used by the Group to supplement the required disclosures under IFRS. Please refer to accounting policy B in the 'Accounting Policies' section and to the 'Other Information' section within the Annual report and accounts for further information.

2 The total cost of ordinary dividends paid to shareholders.

3 A share buy-back of ordinary shares for an aggregate purchase price of £600 million was undertaken during the year, as described in more detail in note 32. A share buy-back of ordinary shares for an aggregate purchase price of £300 million was undertaken during 2017.

4 Total staff costs from continuing operations includes wages and salaries, social security costs, post-retirement obligations, profit sharing and incentive plans, equity compensation plans and termination benefits. The average number of employees in continuing operations was 31,232 (2018) and 30,332 (2017).

External board appointments

- Andy Briggs was appointed a Senior Independent Director of the Association of British Insurers on 7 June 2018, after having been Chairman since 14 September 2011. He is Chairman of the NSPCC's Fundraising Committee and on the Board of Trustees of the NSPCC, and is the Government's Business Champion for Older Workers. He received no fees in respect of these appointments
- Maurice Tulloch is a NED of Pool Reinsurance Company Limited. He received fees of £41,500 (2017: £41,500) in respect of this appointment during 2018. He is also a member of the Insurance Development Forum
- Mark Wilson was a NED of BlackRock Inc. from 15 March 2018. He received cash and shares in the amount of US\$223,814 in the period 15 March 2018 to 9 October 2018

Statement of directors' shareholdings and share interests

EDs share ownership requirements

The Company requires the Group CEO to build a shareholding in the Company equivalent to 300% of basic salary and each ED to build a shareholding in the Company equivalent to 200% of basic salary.

- The EDs are required to retain 50% of the net shares released from ABP and LTIP awards until the shareholding requirement is met
- The shareholding requirement needs to be built up over a five-year period
- Unvested share awards, including shares held in connection with bonus deferrals, are not taken into account in applying this test
- In response to the new provisions of the 2018 Code, during 2019 we will implement post-cessation shareholding guidelines for our EDs. The current expectation is that EDs will be required to retain their full guideline holding for two years following cessation of employment (or their holding on departure if lower). The Committee will retain the discretion to waive part or all of the guideline where considered appropriate, for example in exceptional or compassionate circumstances.

16 Executive directors – share ownership requirement (audited information)

	Shares held				Options held		Shareholding requirement (% of salary)	Current shareholding ⁵ (% of salary)	Requirement met
	Owned outright ¹	Unvested and subject to performance conditions ²	Unvested and subject to continued employment ³	Unvested and subject to continued employment ⁴	Vested but not exercised				
Executive Directors									
Mark Wilson ⁶	728,532	1,793,397	733,540	6,179	—	300	257	No	
Tom Stoddard	312,532	926,154	370,530	—	—	200	160	No	
Andy Briggs	331,301	949,396	344,225	5,128	—	200	165	No	
Maurice Tulloch ⁷	348,797	906,232	259,237	—	—	200	183	No	

1 Directors' beneficial holdings in the ordinary shares of the Company. This information includes holdings of any connected persons. For Andy Briggs it also includes partnership shares purchased under the AESOP, under which participants can currently contribute up to £150 every month. Shares are purchased on a monthly basis, and have to be held in the AESOP trust for three years. These vest after three years providing the ED does not leave and the related partnership shares are not withdrawn from the AESOP trust.

2 Awards granted under the Aviva LTIPs which vest only if the performance conditions are achieved.

3 Awards arising through the ABP. Under this plan, some of the earned bonuses are paid in the form of conditional shares and deferred for three years. The transfer of the shares to the director at the end of the period is not subject to the attainment of performance conditions but the shares can be forfeited if the ED leaves service before the end of the period.

4 Savings-related options (without performance conditions) over shares granted under the SAVE plan.

5 Based on the closing middle-market price of an ordinary share of the Company on 31 December 2018 of 375.5 pence. The closing middle-market price of an ordinary share of the Company during the year ranged from 364.6 pence to 552.0 pence.

6 Mark's outstanding LTIPs ceased to be capable of vesting on 9 October 2018 when he stepped down as Group CEO, and they will lapse upon leaving.

7 Maurice's basic salary and benefits are set in Canadian dollars and have been converted to sterling using an average exchange rate for 2018 of CAD \$1.73.

There were no changes to the EDs interests in Aviva shares during the period 1 January 2019 to 6 March 2019, with the exception of Andy Briggs' continued participation in the AESOP.

17 Non-Executive Directors' shareholdings¹ (audited information)

	1 January 2018	31 December 2018
Sir Adrian Montague	42,385	58,553
Claudia Arney	14,000	14,000
Glyn Barker	22,700	22,700
Patricia Cross	12,383	25,112
Belén Romana García	790	4,475
Michael Hawker	20,000	20,000
Michael Mire	50,000	50,000
Keith Williams	10,000	10,000

1 This information includes holdings of any connected persons.

There were no changes to the NEDs interests in Aviva shares during the period 1 January 2019 to 6 March 2019.

Share awards and share options

Details of the EDs who were in office for any part of the 2018 financial year and hold or held outstanding share awards or options over ordinary shares of the Company pursuant to the Company's share based incentive plans are set out in table 18. EDs are eligible to participate in the Company's broad-based employee share plans on the same basis as other eligible employees. Details of awards and options granted to EDs under these plans are also included in tables 1, 6 and 16 (and SAYE options are included in table 18). More information around HMRC tax-advantaged plans can also be found in note 33.

18 LTIP, ABP and options over Aviva shares (audited information)

	At 1 January 2018 (number)	Options/ awards granted during year ¹ (number)	Options/awards exercised/vesting during year (number)	Options/awards lapsing during year (number)	At 31 December 2018 (number)	Market price at date awards granted ² (pence)	Exercise price (options) (pence)	Market price at date awards vested/option exercised (pence)	Normal vesting date/ exercise period ⁵
Tom Stoddard									
LTIP^{3,4}									
2015	269,281	—	112,220 ⁷	169,918	—	535.00	—	493.10	Mar-18
2016	313,144	—	—	—	313,144	475.20	—	—	Mar-19
2017	295,153	—	—	—	295,153	523.00	—	—	Mar-20
2018	—	317,857	—	—	317,857	542.60	—	—	Mar-21
ABP									
2015	62,228	—	70,280 ⁷	—	—	535.00	—	493.10	Mar-18
2016	120,618	—	—	—	120,618	475.20	—	—	Mar-19
2017	118,061	—	—	—	118,061	523.00	—	—	Mar-20
2018	—	131,851	—	—	131,851	494.10	—	—	Mar-21
Andy Briggs									
LTIP^{3,4}									
2015	276,014	—	115,026 ⁷	174,165	—	535.00	—	493.10	Mar-18
2016	320,972	—	—	—	320,972	475.20	—	—	Mar-19
2017	302,532	—	—	—	302,532	523.00	—	—	Mar-20
2018	—	325,892	—	—	325,892	542.60	—	—	Mar-21
ABP									
2016	92,510	—	—	—	92,510	475.20	—	—	Mar-19
2017	116,530	—	—	—	116,530	523.00	—	—	Mar-20
2018	—	135,185	—	—	135,185	494.10	—	—	Mar-21
SAYE⁶									
2016	5,128	—	—	—	5,128	—	351.00	—	Dec 19 – May-20
Maurice Tulloch									
LTIP^{3,4}									
2015	212,765	—	94,840 ⁷	134,256	—	535.00	—	493.10	Mar-18
2016	309,278	—	—	—	309,278	475.20	—	—	Mar-19
2017	286,091	—	—	—	286,091	523.00	—	—	Mar-20
2018	—	310,863	—	—	310,863	542.60	—	—	Mar-21
ABP									
2015	43,439	—	50,262 ⁷	—	—	535.00	—	493.10	Mar-18
2016	63,144	—	—	—	63,144	475.20	—	—	Mar-19
2017	85,564	—	—	—	85,564	523.00	—	—	Mar-20
2018	—	110,529	—	—	110,529	494.10	—	—	Mar-21
Mark Wilson									
LTIP^{3,4,5}									
2015	521,276	—	217,239 ⁷	328,925	—	535.00	—	493.10	Mar-18
2016	606,185	—	—	—	606,185	475.20	—	—	Mar-19
2017	571,538	—	—	—	571,538	523.00	—	—	Mar-20
2018	—	615,854	—	—	615,854	542.60	—	—	Mar-21
ABP									
2015	150,591	—	170,076 ⁷	—	—	535.00	—	493.10	Mar-18
2016	245,168	—	—	—	245,168	475.20	—	—	Mar-19
2017	231,082	—	—	—	231,082	523.00	—	—	Mar-20
2018	—	257,290	—	—	257,290	494.10	—	—	Mar-21
SAYE⁶									
2014	3,615	—	—	—	2,564	—	419.00	—	Dec 19 – May 20
2016	2,564	—	—	—	2,564	—	351.00	—	Dec 19 – May 20

1 The aggregate net value of share awards granted to the EDs in the period was £11.1 million (2017: £10.6 million). The net value has been calculated by reference to the closing middle-market price of an ordinary share of the Company at the date of grant.

2 The actual price used to calculate the ABP and LTIP awards is based on a three-day average closing middle-market price of an ordinary share of the Company, prior to grant date. These were in 2015: 564 pence, 2016: 485 pence, 2017: 530 pence and 2018: 504 pence.

3 For the 2015, 2016 and 2017 LTIP grant, the TSR comparator group consisted of the following companies: Aegon, Allianz, Assicurazioni Generali, Axa, CNP Assurances, Direct Line Group, Legal & General, MetLife, NN Group, Old Mutual, Prudential, RSA Insurance Group, Standard Life and Zurich Financial. For the 2018 LTIP, the comparator group is: Aegon, Allianz, Assicurazioni Generali, Axa, CNP Assurances, Direct Line Group, Legal & General, Lloyds Banking Group, Old Mutual, Phoenix, Prudential, RSA, Standard Life Aberdeen, Zurich Insurance.

4 The performance periods for these awards begin at the commencement of the financial year in which the award is granted and run for a three-year period.

5 Mark Wilson's 2016, 2017 and 2018 LTIP awards ceased to be capable of vesting on 9 October 2018 when he stepped down as Group CEO and will lapse when he leaves the Company.

6 Any unexercised options will lapse at the end of the exercise period.

Options are not subject to performance conditions. The option price was fixed by reference to a three day average closing middle-market price of an ordinary share of the Company, prior to invitation date, with a discount of 20% as permitted under the SAYE plan. Options granted under the SAYE are normally exercisable during the six-month period following the end of the relevant (3 or 5 year) savings contract.

7 The shares comprised in these vested awards include shares issued in lieu of dividends accrued during the deferral period.

Dilution

Awards granted under Aviva employee share plans are generally met by issuing new shares as agreed by the Board. Shares are held in employee trusts, details of which are set out in note 34.

The Company monitors the number of shares issued under the Aviva employee share plans and their impact on dilution limits. The Company's usage of shares compared to the relevant dilution limits set by the Investment Association in respect of all share plans (10% in any rolling ten-year period) and executive share plans (5% in any rolling ten-year period) was 3.07% and 1.83% respectively on 31 December 2018.

Governance Regulatory Remuneration Code

Aviva Investors and two small 'firms' (as defined by the FCA) within the UK Insurance business are subject to the Capital Requirements Directive IV (CRD IV) and the FCA Remuneration Code (SYSC 19A). Additionally, there are two Aviva Investors 'firms' in the UK, Friends Life Funds Limited and Aviva Investors UK Funds Services Ltd, subject to the Alternative Investment Fund Management Directive (AIFMD), the Undertakings for Collective Investments in Transferable Securities (UCITS V) directive and the Markets in Financial Instruments Directive II (MiFID II). Remuneration Code requirements include an annual disclosure. For AIFMD and UCITS V the disclosure is part of the Financial Statements and/or Annual accounts of the Alternative Investment Funds or UCITS V. For CRD IV requirements the most recent Aviva Investors disclosure can be found in Section 5 of the Pillar 3 Disclosure available at www.aviva.com/pillar3 and a link to the disclosure for the UK Insurance firms can be found at www.aviva.com/remuneration-committee.

Solvency II remuneration

Remuneration Requirements (PRA PS22/16 & SS10/16) apply to the Aviva Group. Our remuneration structures have been designed in a way so that they are compliant with these requirements for all senior managers across the Group, not just those identified as being specifically covered by the requirements of the regulation. Such employees at Aviva are termed 'Covered Employees'. We are required to complete a Remuneration Policy Statement, which outlines how we have complied with each of the requirements, this document was approved by the Group Remuneration Committee and submitted to the Prudential Regulatory Authority (PRA).

The Solvency II reporting requirements for the year ended 31 December 2018 necessitate firms to produce the Solvency and Financial Condition Report (SFCR) which contains remuneration information and is publicly available. Aviva's reward principles and arrangements are designed to incentivise and reward employees for achieving stated business goals in a manner that is consistent with the Company's approach to sound and effective risk management.

Statement of voting at AGM

The result of the shareholder vote at the Company's 2018 AGM in respect of the 2018 Directors' Remuneration Policy and the 2018 Directors' Remuneration Report is set out in table 19. The Committee was pleased with the level of support received from shareholders for both the resolutions.

19 Results of votes at 2018 AGM

	Percentage of votes cast		Number of votes cast		
	For	Against	For	Against	Votes withheld
Directors' Remuneration Policy	97.13%	2.87%	2,809,661,298	83,164,398	3,970,718
Directors' Remuneration Report	97.13%	2.87%	2,808,999,968	83,109,802	4,671,678

Approach to NED fees for 2019

NED fees are reviewed annually. No changes were made to the current fee levels, as set out in the table below. As detailed elsewhere in this report, Sir Adrian Montague did not receive any additional remuneration for assuming the role of Executive Chairman upon the departure of Mark on 9 October 2018.

20 Non-Executive Directors' fees

Role	Fee from 1 April 2019	Fee from 1 April 2018
Chairman of the Company ¹	£550,000	£550,000
Board membership fee	£70,000	£70,000
Additional fees are paid as follows:		
Senior Independent Director	£35,000	£35,000
Committee Chair (inclusive of committee membership fee):		
• Audit	£45,000	£45,000
• Governance	£35,000	£35,000
• Remuneration	£35,000	£35,000
• Risk	£45,000	£45,000
Committee membership:		
• Audit	£15,000	£15,000
• Governance	£12,500	£12,500
• Nomination	£7,500	£7,500
• Remuneration	£12,500	£12,500
• Risk	£15,000	£15,000

¹ Inclusive of Board membership fee and any committee membership fees, and committee chair of the Nomination Committee.

21 Implementation of Policy in 2019

The implementation of the Policy will be consistent with that outlined in table 22.

Key Element																														
Phasing	2019	2020	2021	2022	2023	2024	Implementation in 2019																							
Salary ¹							<ul style="list-style-type: none">Group CEO – £975,000 per annumCFO – £748,027 per annumCEO UKI – £766,938 per annum																							
Bonus ⁴							<ul style="list-style-type: none">One-year performance assessed against critical financial and non-financial performance measuresMeasures largely unchanged from 2018, although customer metrics were refined to ensure they are aligned with and support our strategic focus on driving continuous improvement in our customer performance <p><i>Financial measures (70% of total):</i></p> <ul style="list-style-type: none">20% – Operating EPS²25% – Cash remittances²25% – Operating capital generation² <p><i>Customer-focused strategic measures (30% of total):</i></p> <ul style="list-style-type: none">20% – RNPS10% – MPHA quality of earnings assessment will be undertaken by the Committee to provide assurance that bonus payouts appropriately reflect underlying performance and the shareholder experiencePerformance against a number of other non-financial modifiers will be considered when determining bonus payouts (employee engagement, customer and risk). Within customer, RNPS has been replaced by a measure of brand trust; employee engagement and risk modifiers remain unchangedPersonal performance during the year will be taken into account																							
LTIP							<ul style="list-style-type: none">Group CEO – 300% of salaryCFO and CEO – 225% of salary <p><i>Performance measures unchanged from 2018:</i></p> <ul style="list-style-type: none">50% operating EPS² growth subject to two gateway hurdles – RoE² and Solvency II shareholder cover ratio²50% relative TSR against a comparator group³																							
<table><tr><th colspan="2">50% Operating EPS² target</th><th colspan="2">50% TSR target</th></tr><tr><th>Three-year Operating EPS² growth</th><th>Vesting level</th><th>TSR Ranking</th><th>Vesting level</th></tr><tr><td>Less than 4.0% p.a.</td><td>0%</td><td>Below median</td><td>0%</td></tr><tr><td>4.0% p.a.</td><td>10%</td><td>Median</td><td>10%</td></tr><tr><td>Between 4.0% p.a. and 10.0% p.a.</td><td>10-50% (straight line)</td><td>Between median and upper quintile</td><td>Pro rata between 10% and 50% on a straight line basis</td></tr><tr><td>10.0% p.a. and above</td><td>50%</td><td>Upper quintile and above</td><td>50%</td></tr></table>							50% Operating EPS ² target		50% TSR target		Three-year Operating EPS ² growth	Vesting level	TSR Ranking	Vesting level	Less than 4.0% p.a.	0%	Below median	0%	4.0% p.a.	10%	Median	10%	Between 4.0% p.a. and 10.0% p.a.	10-50% (straight line)	Between median and upper quintile	Pro rata between 10% and 50% on a straight line basis	10.0% p.a. and above	50%	Upper quintile and above	50%
50% Operating EPS ² target		50% TSR target																												
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Between 4.0% p.a. and 10.0% p.a.	10-50% (straight line)	Between median and upper quintile	Pro rata between 10% and 50% on a straight line basis																											
10.0% p.a. and above	50%	Upper quintile and above	50%																											

¹ Salary for Group CEO will be effective from 4 March 2019, while for the CFO and CEO UKI, the change will be effective from 1 April 2019.

² This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

³ 2019 LTIP Comparator Group: Aegon, Allianz, Assicurazioni Generali, Axa, CNP Assurances, Direct Line Group, Legal & General, Lloyds Banking Group, Old Mutual, Phoenix, Prudential, RSA, Standard Life Aberdeen, Zurich Insurance.

⁴ The target ranges are considered by the Board to be commercially sensitive, although will be disclosed in the 2019 DRR.

LTIP vesting – gateway hurdle conditions for the element linked to Operating EPS¹

Any vesting of the operating EPS¹ element of the LTIP is subject to two gateway hurdles – RoE¹ and Solvency II shareholder cover ratio¹. For the 2019 awards, the RoE¹ hurdle is 12% p.a. and the Solvency II shareholder cover ratio¹ is to meet or exceed the minimum of the stated working range (currently 160% to 180%).

Approval by the Board

This Directors' Remuneration Report was reviewed and approved by the Board on 6 March 2019.

Patricia Cross

Chair, Remuneration Committee

¹ This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other Information' section of the Annual report and accounts.

Directors' Remuneration Policy

Our Remuneration Policy was approved by shareholders at our AGM on 10 May 2018 and will apply for a period of up to three years. The full and definitive Policy is therefore set out in our 2017 Annual Report, which can be found on our website at <https://www.aviva.com/investors/annual-report-2017/>

The following section reproduces the Policy for convenience, although the original Policy referred to above remains our formally approved Policy and should be consulted where this is required. In addition, we have taken the opportunity to update the scenario charts to reflect 2019 remuneration arrangements for our EDs, as well as appointment end dates for NEDs.

Alignment of Group strategy with executive remuneration

The Committee considers that alignment between Group strategy and the remuneration of its EDs is critical. Our Remuneration Policy provides market competitive remuneration, and incentivises EDs to achieve both the annual business plan and the longer-term strategic objectives of the Group. Significant levels of deferral and an aggregate shareholding requirement align EDs' interests with those of shareholders and aid retention of key personnel. As well as rewarding the achievement of objectives, variable remuneration can be zero if performance thresholds are not met.

Table 22 below provides an overview of the Policy for EDs. For an overview of the Policy for NEDs, see table 24.

22 Key aspects of the Remuneration Policy for Executive Directors

Element

Basic salary	<p>Purpose To provide core market related pay to attract and retain the required level of talent.</p> <p>Operation Annual review, with changes normally taking effect from – 1 April each year. The review is informed by:</p> <ul style="list-style-type: none"> • Individual and business performance • Levels of increase for the broader employee population • Relevant pay data including market practice among relevant FTSE listed companies of comparable size to Aviva in terms of market capitalisation, large European and global insurers, and UK financial services companies 	<p>Maximum opportunity There is no maximum increase within the Policy. However, basic salary increases take account of the average basic salary increase awarded to the broader employee population. Different levels of increase may be agreed in certain circumstances at the Committee's discretion, such as:</p> <ul style="list-style-type: none"> • An increase in job scope and responsibility • Development of the individual in the role • A significant increase in the size, value or complexity of the Group <p>Assessment of performance Any movement in basic salary takes account of the performance of the individual and the Group.</p>
Annual bonus	<p>Purpose To reward EDs for achievement against the Company's strategic objectives and for demonstrating the Aviva values and behaviours.</p> <p>Deferral provides alignment with shareholder interests and aids retention of key personnel.</p> <p>Operation Awards are based on performance in the year. Targets are set annually and pay-out levels are determined by the Committee based on performance against those targets and a quality of earnings assessment and risk review.</p> <p>Form & timing of payment</p> <ul style="list-style-type: none"> • One-third of any bonus is payable in cash at the end of the year • Two-thirds of any bonus awarded is deferred into shares which vest in three equal annual tranches <p>Additional shares are awarded at vesting in lieu of dividends paid on the deferred shares.</p> <p>Malus and clawback Cash and deferred awards are subject to malus and clawback. Details of when these may be applied are set out in the notes below.</p>	<p>Maximum opportunity 200% of basic salary for Group CEO 150% of basic salary for other EDs</p> <p>Outcome at threshold and on target Performance is assessed against multiple metrics. Threshold performance against a single metric would result in a bonus payment of no more than 25% of basic salary.</p> <p>100% of basic salary is payable for on target performance.</p> <p>Assessment of performance Performance is assessed against a range of relevant financial, employee, customer and risk targets designed to incentivise the achievement of our strategy, as well as individual strategic objectives as set by the Committee.</p> <p>Although financial performance is the major factor in considering overall expenditure on bonuses, performance against non-financial measures including progress towards our strategic priorities and behaviours in line with our values will also be taken into consideration.</p> <p>Discretion The Committee has discretion to amend vesting levels to prevent unreasonable outcomes, which it may use taking into account a range of factors, including the management of risk and good governance and, in all cases, the experience of shareholders.</p>

Element

Long-term incentive plan	<p>Purpose To reward EDs for achievement against the Company's longer-term objectives; to align EDs' interests with those of shareholders and to aid the retention of key personnel and to encourage focus on long-term growth in enterprise value.</p> <p>Operation Shares are awarded annually which vest dependent on the achievement of performance conditions. Vesting is subject to an assessment of quality of earnings, the stewardship of capital and risk review.</p> <p>Performance period Three years. Additional shares are awarded at vesting in lieu of dividends on any shares which vest.</p> <p>Additional holding period Two years.</p> <p>Malus and clawback Awards are subject to malus and clawback. Details of when these may be applied are set out in the notes below.</p>	<p>Maximum opportunity 350% of basic salary.</p> <p>Performance measures Awards will vest based on a combination of financial, strategic and TSR performance metrics. For the 2018 awards the measures and weightings will be:</p> <ul style="list-style-type: none"> • 50% Operating EPS¹ growth subject to two gateway hurdles – RoE¹ and Solvency II shareholder cover ratio¹ • 50% TSR against a comparator group <p>The financial metric combined with TSR will be a minimum of 80% of the total LTIP award. If, in subsequent years, shareholders indicate support for strategic measures, the Policy will allow for up to 20% of the LTIP to be awarded on the basis of strategic measures and this will be fully disclosed in the DRR.</p> <p>Vesting at threshold 20% of award for each performance measure.</p> <p>Discretion The Committee has discretion to amend vesting levels to prevent unreasonable outcomes, which it may use taking into account a range of factors, including the management of risk and good governance and, in all cases, the experience of shareholders.</p>
Pension	<p>Purpose To give a market competitive level of provision for post retirement income.</p> <p>Operation EDs are eligible to participate in a defined contribution plan up to the annual limit.</p> <p>Any amounts above annual or lifetime limits are paid in cash.</p>	<p>Maximum opportunity If suitable employee contributions are made, the Company contributes:</p> <ul style="list-style-type: none"> • 20% of basic salary for new ED appointments • 28% of basic salary for existing EDs (into pension or paid as cash as applicable)
Benefits	<p>Purpose To provide EDs with a suitable but reasonable package of benefits as part of a competitive remuneration package. This involves both core executive benefits, and the opportunity to participate in flexible benefits programmes offered by the Company (via salary sacrifice).</p> <p>This enables us to attract and retain the right level of talent necessary to deliver the Company's strategy.</p> <p>Operation Benefits are provided on a market related basis. The Company reserves the right to deliver benefits to EDs depending on their individual circumstances, which may include a cash car allowance, life insurance, private medical insurance and access to a company car and driver for business use. In the case of non-UK executives, the Committee may consider additional allowances in line with standard relevant market practice.</p> <p>EDs are eligible to participate in the Company's broad based employee share plans on the same basis as other eligible employees.</p>	<p>Maximum opportunity Set at a level which the Committee considers appropriate against comparable roles in companies of a similar size and complexity to provide a reasonable level of benefit.</p> <p>Costs would normally be limited to providing a cash car allowance, private medical insurance, life insurance, and reasonable travel benefits (including the tax cost where applicable). In addition, there may be one-off or exceptional items on a case by case basis, which would be disclosed in the DRR.</p>
Relocation and mobility	<p>Purpose To assist with mobility across the Group to ensure the appropriate talent is available to execute strategy locally.</p> <p>Operation Employees who are relocated or reassigned from one location to another receive relevant benefits to assist them and their dependants in moving home and settling in-to the new location.</p>	<p>Maximum opportunity Dependent on location and family size, benefits are market related and time bound. They are not compensation for performing the role but to defray costs of a relocation or residence outside the home country.</p> <p>The Committee would reward no more than it judged reasonably necessary, in the light of all applicable circumstances.</p>
Shareholding requirements	<p>Purpose To align EDs' interests with those of shareholders.</p> <p>Operation A requirement to build a shareholding in the Company equivalent to 300% of basic salary for the Group CEO and 200% of basic salary for other EDs.</p> <p>This shareholding is normally to be built up over a period not exceeding 5 years (subject to the Committee's discretion where personal circumstances dictate).</p>	

¹ This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information on APMs, including a reconciliation to the financial statements (where possible), can be found in the 'Other information' section of the annual report and accounts.

Notes to the table:**Performance measures**

For the annual bonus, performance measures are chosen to align to some of the Group's KPIs and include financial, strategic, risk, employee and customer measures. Achievement against individual strategic objectives is also taken into account.

LTIP performance measures are chosen to provide an indication of both absolute and relative return generated for shareholders. In terms of target setting, a number of reference points are taken into account each year including, but not limited to, the Group's business plan and external market expectations of the Company. Maximum payouts require performance that significantly exceeds expected performance under both the annual bonus and the LTIP.

Quality of Earnings assessments

Throughout the year, the Committee engages in a regular quality of earnings assessment. A quality of earnings assessment sign-off is the final step in determining annual bonus scorecard outcomes, and in making decisions on LTIP vesting. This sign-off is undertaken before decisions are made on the modifiers for risk, customer and employee engagement under the annual bonus, and before vesting is determined against financial metrics under the LTIP.

As a minimum, at any Committee meeting where LTIP vesting or annual bonus scorecard decisions are considered, the Chief Accounting Officer prepares a report to the Committee on the quality of earnings reflected in the results being assessed, against performance targets. Extensive information from the audited accounts is used to explain the vesting and scorecard outcomes – ranging from movements in reserves, capital management decisions, consistency of accounting treatment and period to period comparability. The Chief Accounting Officer attends the Committee meeting to answer any questions that any member of the Committee may choose to ask. Any vesting decision or confirmation of awards is made after this process has been undertaken.

Malus and Clawback

The circumstances when malus (the forfeiture or reduction of unvested shares awarded under the Annual Bonus Plan (ABP) and LTIP) and clawback (the recovery of cash and share awards after release) may apply include (but are not limited to) where the Committee considers that the employee concerned has been involved in or partially/wholly responsible for:

- A materially adverse misstatement of the Company's financial statements, or a misleading representation of performance;
- A significant failure of risk management and/or controls;
- A scenario or event which causes material reputational damage to the Company;
- Misconduct which, in the opinion of the Committee, ought to result in the complete or partial lapse of an award;
- Conduct which resulted in significant loss(es);
- Failure to meet appropriate standards of fitness and propriety;
- Any other circumstance required by local regulatory obligations.

The clawback period runs for two years from the date of payment in the case of the cash element of any annual bonus award.

For deferred bonus elements and LTIP awards, the overall malus and clawback period is five years from the date of grant.

Discretions

The discretions the Committee has in relation to the operation of the ABP and LTIP are set out in the plan rules. These include (but are not limited to) the ability to set additional conditions (and the discretion to change or waive those conditions). In relation to the LTIP and in accordance with its terms, the Committee has discretion in relation to vesting and to waive or change a performance condition if anything happens which causes the Committee reasonably to consider it appropriate to do so. Such discretions would only be applied in exceptional circumstances, to ensure that awards properly reflect underlying business performance. Any use of the discretions and how they were exercised will be disclosed, where relevant, in the DRR and, where appropriate, be subject to consultation with Aviva's shareholders.

Change in control

In the event of a change in control, unless a new award is granted in exchange for an existing award, or if there is a significant corporate event like a demerger, awards under the LTIP would normally vest to the extent that the performance conditions have been satisfied as at the date of the change in control, and unless the Committee decides otherwise, would be pro-rated to reflect the time between the start of the performance period and the change in control event. Awards under the ABP would normally vest on the date of the change in control and may vest if there is a significant corporate event.

Consistency of executive Policy across the Group

The Policy for our EDs is designed as part of the remuneration philosophy and principles that underpin remuneration for the wider Group. Remuneration arrangements for employees below the EDs take account of the seniority and nature of the role, individual performance and local market practice. The components and levels of remuneration for different employees may therefore differ from the Policy for EDs. Any such elements are reviewed against market practice and approved in line with internal guidelines and frameworks.

Differentiation in reward outcomes based on performance and behaviour that is consistent with the Aviva values is a feature of how Aviva operates its annual bonus plan for its senior leaders and managers globally. A disciplined approach is taken to moderation across the Company in order to recognise and reward the key contributors. The allocation of LTIP awards also involves strong differentiation, with expected contribution and ability to collaborate effectively in implementation of the strategy driving award levels.

Legacy payments

The Committee reserves the right to make any remuneration payments and payments for loss of office (including exercising any discretions available to it in connection with such payments) notwithstanding that they are not in line with the Policy set out above, where the terms of the payment were agreed (i) before May 2014 (the date the Company's first Policy came into effect), (ii) before the Policy set out above came

into effect, provided that the terms of the payment were consistent with the Policy in force at the time they were agreed, or (iii) at a time when the relevant individual was not a director of the Company and, in the opinion of the Committee, the payment was not in consideration for the individual becoming a director of the Company. For these purposes, 'payments' includes the Committee satisfying awards of variable remuneration and, in relation to an award over shares, the terms of the payment are 'agreed' at the time the award is granted.

Approach to recruitment remuneration

On hiring a new ED, the Committee would align the proposed remuneration package with the Policy in place for EDs at the time of the appointment.

In determining the actual remuneration for a new ED, the Committee would consider the package in totality, taking into account elements such as the skills and experience of the individual, local market benchmarks, remuneration practice, and the existing remuneration of other senior executives. The Committee would ensure any arrangements agreed would be in the best interests of Aviva and its shareholders. It would seek not to pay more than necessary to secure the right candidate.

Where considered appropriate the Committee may make awards on hiring an external candidate to 'buyout' remuneration arrangements forfeited on leaving a previous employer. In doing so, the Committee would take account of relevant factors including any performance conditions attached to these awards, the form in which it was paid (e.g. cash or shares) and the timeframe of awards. Buyout awards would be awarded on a 'like for like' basis compared to remuneration being forfeited, and would be capped to reflect the value being forfeited. The Committee considers that a buyout award is a significant investment in human capital by Aviva, and any buyout decision will involve careful consideration of the contribution that is expected from the individual.

The maximum level of variable pay which could be awarded to a new ED, excluding any buyouts, would be in line with the Policy set out above and would therefore be no more than 550% of basic salary for the Group CEO (200% of basic salary annual bonus opportunity and 350% of basic salary as the face value of a LTIP grant) and 500% of basic salary for other EDs (150% of basic salary annual bonus opportunity and 350% of basic salary as the face value of a LTIP grant).

All other elements of remuneration will also be in line with the Policy set out above.

Should the Company have any prior commitments outside of this Policy in respect of an employee promoted internally to an ED position, the Committee may continue to honour these for a period of time. Where an ED is appointed from within the organisation, the normal policy of the Company is that any legacy arrangements would be honoured in line with the original terms and conditions. Similarly, if an ED is appointed following Aviva's acquisition of, or merger with, another company, legacy terms and conditions may be honoured.

On appointing a new NED, the Committee would align the remuneration package with the Policy for NEDs, outlined in table 24, including fees and travel benefits.

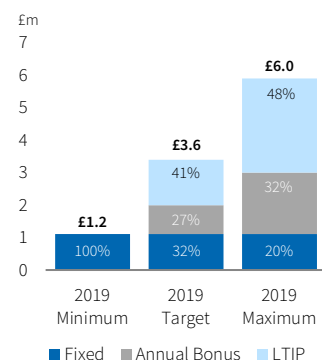
Illustration of the Policy

The charts below illustrate how much EDs could earn under different performance scenarios in one financial year:

- Minimum – basic salary, pension or cash in lieu of pension and benefits, no bonus and no vesting of the LTIP
- Target – basic salary, pension or cash in lieu of pension, benefits, and:
 - A bonus of 100% and an LTIP of 300% of basic salary (with notional LTIP vesting at 50% of maximum) for the Group CEO; and
 - A bonus of 100% and an LTIP of 225% of basic salary (with notional LTIP vesting at 50% of maximum) for the CFO and CEO UKI.
- Maximum – basic salary, pension or cash in lieu of pension, benefits, and:
 - A bonus of 200% and an LTIP of 300% of basic salary (with notional LTIP vesting at maximum) for the Group CEO; and
 - A bonus of 150% and an LTIP of 225% of basic salary (with notional LTIP vesting at maximum) for the CFO and CEO UKI.

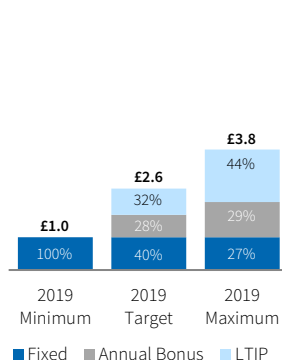
Maurice Tulloch

Potential earnings
by pay element



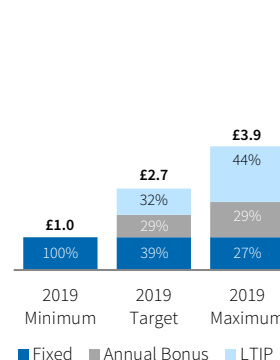
Tom Stoddard

Potential earnings
by pay element



Andy Briggs

Potential earnings
by pay element



Notes to the charts

Fixed pay consists of basic salary, pension as described in Table 22, and estimated value of benefits provided under the Remuneration Policy, excluding any one offs. Actual figures may vary in future years.

The value of the LTIP and deferred element of the annual bonus assumes a constant share price and does not include additional shares awarded in lieu of dividends that may have been accrued during the vesting period. LTIP as awarded in 2019.

Employment contracts and letters of appointment

ED employment contracts and NED letters of appointment are available for inspection at the Company's registered office during normal hours of business, and at the place of the Company's 2019 AGM on 23 May from 10.45am until the close of the meeting.

The key employment terms and conditions of the current EDs, and those who served during the year, as stipulated in their employment contracts, are set out in the table below.

23 Executive Directors' key conditions of employment

Provision	Policy								
Notice period									
By the ED	6 months.								
By the Company	12 months, rolling. No notice or payment in lieu of notice to be paid where the Company terminates for cause.								
Termination Payment	Pay in lieu of notice up to a maximum of 12 months' basic salary. Any payment is subject to phasing and mitigation requirements. An ED would be expected to mitigate the loss of office by seeking alternative employment. Any payments in lieu of notice would be reduced, potentially to zero, by any salary received from such employment.								
Remuneration and Benefits	The operation of the annual bonus and LTIP is at the Company's discretion.								
Expenses	Reimbursement of expenses reasonably incurred in accordance with their duties.								
Car Allowance	In the case of Tom and Andy, a cash car allowance is received, as varied from time to time.								
Holiday entitlement	30 working days plus public holidays.								
Private medical insurance	Private medical insurance is provided for the ED and their family. The ED can choose to opt out of this benefit or take a lower level of cover. However, no payments are made in lieu of reduced or no cover.								
Other benefits	Other benefits include participation in the Company's staff pension scheme, life insurance and, where applicable, access to a Company car and driver for business related use.								
Sickness	In the case of Tom and Andy, 100% of basic salary for 52 weeks, and 75% thereafter for a further 52 weeks. In the case of Maurice, 100% of salary for the first 52 weeks, and 50% thereafter for a further five years.								
Non-compete	During employment and for six months after leaving (less any period of garden leave) without the prior written consent of the Company.								
Contract dates	<table> <tr> <th>Director</th><th>Date current contract commenced</th></tr> <tr> <td>Maurice Tulloch</td><td>4 March 2019</td></tr> <tr> <td>Tom Stoddard</td><td>28 April 2014</td></tr> <tr> <td>Andy Briggs</td><td>13 April 2015</td></tr> </table>	Director	Date current contract commenced	Maurice Tulloch	4 March 2019	Tom Stoddard	28 April 2014	Andy Briggs	13 April 2015
Director	Date current contract commenced								
Maurice Tulloch	4 March 2019								
Tom Stoddard	28 April 2014								
Andy Briggs	13 April 2015								

Policy on payment for loss of office

There are no pre-determined ED special provisions for compensation for loss of office. The Committee has the ability to exercise its discretion on the final amount actually paid. Any compensation would be based on basic salary, pension entitlement and other contractual benefits during the notice period, or a payment made in lieu of notice, depending on whether the notice is worked.

Where notice of termination of a contract is given, payments to the ED would continue for the period worked during the notice period. Alternatively, the contract may be terminated and phased monthly payments made in lieu of notice for, or for the balance of, the 12 months' notice period. During this period, EDs would be expected to mitigate their loss by seeking alternative employment. Payments in lieu of notice would be reduced by the salary received from any alternative employment, potentially to zero. The Company would typically make a reasonable contribution towards an ED's legal fees in connection with advice on the terms of their departure.

There is no automatic entitlement to an annual bonus for the year in which loss of office occurs. The Committee may determine that an ED may receive a pro-rata bonus in respect of the period of employment during the year loss of office occurs based on an assessment of performance. Where an ED leaves the Company by reason of death, disability or ill health, or any other reason determined by the Committee, there may be a payment of a pro rata bonus for the relevant year at the discretion of the Committee.

The treatment of leavers under the ABP and LTIP is determined by the rules of the relevant plans. Good leaver status under these plans would be granted in the event of, for example, the death of an ED. Good leaver status for other leaving reasons is at the discretion of the Committee, taking into account the circumstances of the individual's departure, but would typically include planned retirement, or their departure on ill health grounds. In circumstances where good leaver status has been granted, awards may still be subject to malus and clawback in the event that inappropriate conduct of the ED is subsequently discovered post departure. If good leaver status is not granted, all outstanding awards will lapse.

In the case of LTIPs, where the Committee determines EDs to be good leavers, vesting is normally based on the extent to which performance conditions have been met at the end of the relevant performance period, and the proportion of the award that vests is pro-rated for the time from the date of grant to final date of service (unless the Committee decides otherwise). Any decision not to apply this would only be made in exceptional circumstances, and would be fully disclosed. It is not the practice to allow such treatment.

Consideration of wider employee pay and shareholder views

When determining the Policy and arrangements for our EDs, the Committee considers:

- Pay and employment conditions elsewhere in the Group to ensure that pay structures are suitably aligned and that levels of remuneration remain appropriate. The Committee reviews levels of basic salary increases for other employees and executives based in their respective locations. It reviews changes in overall bonus pool funding and long-term incentive grants. The Committee considers feedback on pay matters from sources including the employee opinion survey and employee forums. The Committee also takes into account information provided by the people function and external advisers and the Committee Chair has in place a programme of consultation and meetings with employee forums including the Evolution Council and Your Forum to discuss remuneration.
- In its ongoing dialogue with shareholders, the Committee seeks shareholder views and takes them into account when any significant changes are being proposed to remuneration arrangements and when formulating and implementing the Policy.

Non-Executive Directors

The table below, sets out details of our Policy for NEDs.

24 Key aspects of the Policy for Non-Executive Directors

Element

Chairman and NEDs' fees	<p>Purpose To attract individuals with the required range of skills and experience to serve as a Chairman or as a NED.</p> <p>Operation NEDs receive a basic annual fee in respect of their Board duties. Further fees are paid for membership and, where appropriate, chairing Board committees. The Chairman receives a fixed annual fee. Fees are reviewed annually taking into account market data and trends and the scope of specific Board duties. NEDs are able to use up to 100 percent of their post-tax base fees to acquire shares in Aviva plc. The Chairman and NEDs do not participate in any incentive or performance plans or pension arrangements and do not receive an expense allowance. NEDs are reimbursed for reasonable expenses, and any tax arising on those expenses is settled directly by Aviva. To the extent that these are deemed taxable benefits, they will be included in the DRR, as required.</p>	Maximum opportunity The Company's Articles of Association provide that the total aggregate remuneration paid to the Chairman of the Company and NEDs will be determined by the Board within the limits set by shareholders and detailed in the Company's Articles of Association.
Chairman's Travel Benefits	<p>Purpose To provide the Chairman with suitable travel arrangements for him to discharge his duties effectively.</p>	The Chairman has access to a company car and driver for business use. Where these are deemed a taxable benefit, the tax is paid by the Company.
NED Travel and Accommodation	<p>Purpose To reimburse NEDs for appropriate business travel and accommodation, including attending Board and committee meetings.</p>	Operation Reasonable costs of travel and accommodation for business purposes are reimbursed to NEDs. On the limited occasions when it is appropriate for a NED's spouse or partner to attend, such as to a business event, the Company will meet these costs. The Company will meet any tax liabilities that may arise on such expenses.

The NEDs, including the Chairman of the Company, have letters of appointment which set out their duties and responsibilities. The key terms of the appointments are set out in table below.

25 Non-Executive Directors' key terms of appointment

Provision	Policy
Period	In line with the requirement of the Code, all NEDs, including the Chairman, are subject to annual re-election by shareholders at each AGM.
Termination	By the director or the Company at their discretion without compensation upon giving one month's written notice for NEDs and three months written notice for the Chairman of the Company.
Fees	As set out in table 20.
Expenses	Reimbursement of travel and other expenses reasonably incurred in the performance of their duties.
Time commitment	Each director must be able to devote sufficient time to the role in order to discharge his or her responsibilities effectively.

Director	Committee appointments					Appointment date ¹	Appointment end date ²
	Nomination	Audit	Governance	Remuneration	Risk		
Sir Adrian Montague	C					14 January 2013	AGM 2019
Claudia Arney	✓		C	✓	✓	8 February 2016	AGM 2019
Glyn Barker	✓	✓	✓	✓	✓	27 February 2012	AGM 2019
Patricia Cross	✓	✓		C		1 December 2013	AGM 2019
Belén Romana García	✓		✓		✓	26 June 2015	AGM 2019
Michael Hawker	✓	✓			C	1 January 2010	31 March 2019
Michael Mire	✓		✓	✓	✓	12 September 2013	AGM 2019
Keith Williams	✓	C	✓		✓	1 August 2016	AGM 2019

Key

C Chair of Committee

✓ Committee

¹ The dates shown above reflect the date the individual was appointed to the Aviva plc Board.

² Appointment end dates are in accordance with letters of appointment, with the exception of Michael Hawker who is retiring from the board on 31 March 2019.

IFRS financial statements

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Report on the audit of the financial statements

Opinion

In our opinion, Aviva plc's Group financial statements and Company financial statements (the 'financial statements'):

- give a true and fair view of the state of the Group's and of the Company's affairs as at 31 December 2018 and of the Group's and the Company's profit and cash flows for the year then ended;
- have been properly prepared in accordance with International Financial Reporting Standards ('IFRS') as adopted by the European Union; and
- have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation.

We have audited the financial statements, included within the Annual report and accounts (the 'Annual report') which comprise:

- the Consolidated and Company statements of financial position as at 31 December 2018;
- the Consolidated and Company income statements and statements of comprehensive income for the year then ended;
- the Reconciliation of Group adjusted operating profit to profit for the year then ended;
- the Consolidated and Company statements of changes in equity for the year then ended;
- the Consolidated and Company statements of cash flows for the year then ended;
- the principal accounting policies adopted in the preparation of the financial statements; and
- the notes to the financial statements, which include other explanatory information.

Our opinion is consistent with our reporting to the Audit Committee.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ('ISAs (UK)') and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the Group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, as applicable to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To the best of our knowledge and belief, we declare that non-audit services prohibited by the FRC's Ethical Standard were not provided to the Group or the Company.

Other than those disclosed in Note 13 to the consolidated financial statements, we have provided no non-audit services to the Group or the Company in the period from 1 January 2018 to 31 December 2018.

Our audit approach

Overview

- Overall Group materiality: £156.0 million (2017: £147.0 million), based on 5% of Group adjusted operating profit before tax attributable to shareholders' profits after the deduction of integration and restructuring costs.
- Overall Company materiality: £105.0 million (2017: £55.5 million), based on 5% of IFRS profit before tax.
- Based on the output of our risk assessment, along with our understanding of the Aviva Group structure, we performed full scope audits over the following components; UK Life, UK General Insurance, Canada and France Life.
- We identified a further two components, Aviva Investors and Italy Life, where specific account balances were considered to be significant in size in relation to the Group, and scoped our audit to include detailed testing of those account balances.
- We completed review procedures over other components not subject to full scope audits, including the remaining components that make up Aviva's eight major markets.
- We also performed audit procedures over the head office operations and the consolidation process, as well as over certain other group activities, including specific account balances in the Aviva Employment Services and Aviva Group Holdings components.
- Our risk assessment analysis identified the following as areas of focus for the financial statements:
 - Valuation of life insurance contract liabilities
 - Valuation of non-life insurance contract liabilities
 - Valuation of hard to value investments
 - Valuation of a specific UK Life provision

The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we looked at where the directors made subjective judgements, for example in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain.

Capability of the audit in detecting irregularities, including fraud

Based on our understanding of the Group, Company and its industry, we identified that the principal risks of non-compliance with laws and regulations related to breaches of UK and European regulatory principles, such as those governed by the Prudential Regulation Authority and the Financial Conduct Authority, and we considered the extent to which non-compliance might have a material effect on the financial statements of the Group and Company. We also considered those laws and regulations that have a direct impact on the financial statements of the Group and Company such as the Companies Act 2006, the Listing Rules, the Prudential Regulation Authority's regulations, the Pensions Regulator legislation, the UK tax legislation and equivalent local laws and regulations applicable to in scope components.

We have also evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls) and determined that the principal risks were related to management bias in accounting estimates and judgmental areas of the financial statements as shown in our "Key Audit Matters". Audit procedures performed by the engagement team included:

Discussions with the Board, management, internal audit, senior management involved in the Risk and Compliance functions and the Group and Company's legal function, including consideration of known or suspected instances of non-compliance with laws and regulation and fraud;

- Evaluation and testing of the operating effectiveness of management's controls designed to prevent and detect irregularities;
- Assessment of matters reported on the Group and Company's whistleblowing helpline and fraud register and the results of management's investigation of such matters;
- Reading key correspondence with the Prudential Regulation Authority and the Financial Conduct Authority in relation to compliance with laws and regulations;
- Reviewing relevant meeting minutes including those of the Risk Committee and Audit Committee;
- Making enquiries of the Group Investigations team who are responsible for independently reviewing fraudulent activity across the group, utilising activities including, but not limited to, whistle blowing hotlines and data analytics;
- Identifying and testing journal entries, in particular any journal entries posted with unusual account combinations or posted by senior management;
- Designing audit procedures to incorporate unpredictability around the nature, timing or extent of our testing; and
- Testing transactions entered into outside of the normal course of the Group and Company's business specifically in respect of the acquisitions and disposals

There are inherent limitations in the audit procedures described above and, the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely we would become aware of it. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by the auditors, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters, and any comments we make on the results of our procedures thereon, were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. This is not a complete list of all risks identified by our audit.

Key audit matter

How our audit addressed the key audit matter

Valuation of life insurance contract liabilities (Group)

Refer to the Audit Committees' Report, Accounting policy (L) Insurance and participating investment contract liabilities – Long-term business provisions and note 42 Insurance liabilities (b) Long-term business liabilities.

For UK Life insurance contract liabilities, the Directors' valuation of the provisions for the settlement of future claims, involves complex and subjective judgements about future events, both internal and external to the business, for which small changes in assumptions can result in material impacts to the valuation of these liabilities.

The work to address the valuation of the UK Life insurance contract liabilities included the following procedures:

- We understood the governance process in place to determine the insurance contract liabilities, including testing the associated financial reporting control framework.
- We tested the design and operating effectiveness of controls over the accuracy and completeness of the data used.
- Using our actuarial specialist team members, we applied our industry knowledge and experience and we compared the methodology, models and assumptions used against recognised actuarial practices.
- We tested the key judgements and controls over the preparation of the liability, including manually calculated components. We focused on the consistency in treatment and methodology period-on-period and with reference to recognised actuarial practice.
- We used the results of an independent PwC annual benchmarking survey of assumptions to further challenge the assumption setting process by comparing certain assumptions used relative to the Group's industry peers.
- We assessed the disclosures in the financial statements.

As part of our consideration of the entire set of assumptions, we focused particularly on the annuitant mortality, credit default and expense assumptions for the UK Life component given their significance to the Group's result and the level of judgement involved. We have also evaluated the implementation of a new actuarial model used to calculate certain life insurance contract liabilities for the UK Life component. These aspects of our work have been considered in greater detail below.

Based on the work performed and the evidence obtained, we consider the assumptions used and the output from the new actuarial model to be appropriate.

Key audit matter**How our audit addressed the key audit matter****Annuitant mortality assumptions (Group)**

Refer to the Audit Committees' Report, Accounting policy (L) Insurance and participating investment contract liabilities – Long-term business provisions and note 43 Insurance liabilities methodology and assumptions (a) Long-term business.

Annuitant mortality assumptions require a high degree of judgement due to the number of factors which may influence mortality experience. The differing factors which affect the assumptions are underlying mortality experience (in the portfolio), industry and management views on the future rate of mortality improvements and external factors arising from developments in the annuity market.

There are two main components to the annuitant mortality assumptions:

- Mortality base assumption: this component is typically less subjective as it is derived using external Continuous Mortality Investigation (CMI) tables or an equivalent, adjusted for internal experience. However, judgement is required in choosing the appropriate table and fitting internal experience to this table.
- Rate of mortality improvements: this component is more subjective given the lack of data and the uncertainty over how life expectancy will change in the future. Management has adopted the most recent CMI 2017 model and dataset in setting this assumption with specific parameters for the long term rate of improvement and tapering at older ages and adjustments to reflect the profile of their portfolio. This reflects their views on the rate of mortality improvement.

In addition, a margin for prudence is applied to the annuitant mortality assumptions.

In respect of the annuitant mortality assumptions, we performed the following:

- We tested the methodology used by management to derive the assumptions with reference to relevant rules and actuarial guidance and by applying our industry knowledge and experience. This included evaluating management's choice of, and fitting to, the CMI or equivalent base tables and the adoption of the CMI 2017 model and dataset for improvements, together with associated parameters and the margin for prudence.
- We assessed the results of the experience investigations carried out by UK Life management for the annuity business to determine whether they provided support for the assumptions used by management.
- We compared the mortality assumptions selected by UK Life against those used by their peers.

Based on the work performed and the evidence obtained, we consider the assumptions used for annuitant mortality to be appropriate.

Credit default assumptions for illiquid assets, specifically: Commercial mortgages and equity release mortgages (Group)

Refer to the Audit Committees' Report, Accounting policy (L) Insurance and participating investment contract liabilities – Long-term business provisions and note 43 Insurance liabilities methodology and assumptions (a) Long-term business.

UK Life has substantial holdings in illiquid asset classes with significant credit risk, notably commercial mortgages and equity release mortgages.

Management use an active approach to setting the assumptions. A long term deduction for credit default is made from the current market yields and a supplementary allowance is also held to cover the risk of higher short term default rates along with a margin for prudence.

In addition to the procedures above, in respect of the credit default assumptions, we performed the following:

- We tested the methodology and credit risk pricing models used by management for commercial and equity release mortgages to derive the assumptions with reference to relevant rules and actuarial guidance, including the adoption of an appropriate prudence margin and by applying our industry knowledge and experience.
- We validated significant assumptions used by management by ensuring consistency with the assumptions used for the valuation of the assets, and against market observable data (to the extent available and relevant) and our experience of market practices.

Based on the work performed and the evidence obtained, we consider the allowance for credit default risk to be appropriate.

Expense assumptions (Group)

Refer to the Audit Committees' Report, Accounting policy (L) Insurance and participating investment contract liabilities – Long-term business provisions and note 43 Insurance liabilities methodology and assumptions (a) Long-term business.

Future maintenance expenses and expense inflation assumptions are used in the measurement of life insurance contract liabilities. The assumptions reflect the expected future expenses that will be required to maintain the in-force policies at the balance sheet date, including an allowance for project costs and a margin for prudence. The assumptions used require significant judgement.

In addition to the procedures above, in respect of the expense assumptions, we performed the following:

- We tested the methodology used by management to derive the assumptions with reference to relevant rules and actuarial guidance and by applying our industry knowledge and experience. This included testing the split of expenses between acquisition and maintenance by agreeing a sample to supporting evidence.
- We validated significant assumptions used by management, including the margin for prudence and the rate of inflation against past experience, market observable data (to the extent available and relevant) and our experience of market practices.
- We tested that the assumptions appropriately reflect the expected future expenses for maintaining policies in force at the balance sheet date, which includes consideration of the allowance for project costs.

Based on the work performed and the evidence obtained, we consider the expense assumptions to be appropriate.

Key audit matter**How our audit addressed the key audit matter****Implementation of new actuarial modelling system (Group)**

Refer to the Audit Committees' Report and note 59 Risk management (e) Life and health insurance risk.

UK Life has implemented a new actuarial modelling system for non-profit business. During the year ended 31 December 2018, annuities and certain protection products were transferred onto this new modelling system.

There is a risk that the new model may not measure the insurance liabilities appropriately due to, for example, the methodology not following relevant rules and actuarial guidance, calculation errors or the incorrect application of policyholder data and actuarial assumptions.

We performed the following:

- We assessed the changes to the methodology as a result of adopting the new model relative to relevant rules and actuarial guidance, including understanding the rationale for any differences identified in the liabilities between the new and existing models.
- We examined the testing performed by management to check the appropriateness of the liabilities generated by the new model and the comparison to the liabilities from the existing model.
- We performed independent testing of the new model by developing our own independent model and recalculating the insurance liabilities for a proportion of the transferred liabilities.

Based on the work performed and the evidence obtained, we consider the output from the new actuarial model to be appropriate in measuring the relevant insurance contract liabilities.

Valuation of non-life insurance contract liabilities (Group)

Refer to the Audit Committees' Report, Accounting policy (L) Insurance and participating investment contract liabilities – General insurance and health provisions and note 43 Insurance liabilities methodology and assumptions (b) General insurance and health.

The estimation of non-life insurance contract liabilities involves a significant degree of judgement. The liabilities are based on the estimated ultimate cost of all claims incurred but not settled at 31 December 2018, whether reported or not, together with the related claims handling costs.

A range of methods, including stochastic projections, may be used to determine these provisions. Underlying these methods are a number of explicit or implicit assumptions relating to the expected settlement amount and settlement patterns of claims. This includes assumptions relating to the settlement of personal injury lump sum compensation amounts.

Given their size in relation to the consolidated Group and the complexity of the judgements involved, our work focused on the liabilities in the UK General Insurance and Canada General Insurance components.

In the UK General Insurance and Canada markets, we assessed the Directors' calculation of the non-life insurance liabilities by performing the following procedures:

- We tested the underlying data to source documentation on a sample basis.
- Using our actuarial specialist team members, we applied our industry knowledge and experience and we compared the methodology, models and assumptions used against recognised actuarial practices.
- We understood and tested the governance process in place to determine the insurance contract liabilities, including testing the associated financial reporting control framework.
- Using our actuarial specialist team members, we independently estimated the reserves on selected classes of business, particularly focusing on the largest and most uncertain reserves. For these classes we compared our estimated reserves to those booked by management, and sought to understand any significant differences.
- For the remaining classes we evaluated the methodology and assumptions, or performed a diagnostic check to identify and investigate any anomalies.
- We assessed the disclosures in the financial statements.

Based on the work performed and evidence obtained, we consider the methodology and assumptions used to value the non-life insurance contract liabilities to be appropriate.

Valuation for hard to value investments (Group)

Refer to Audit Committees' Report, Accounting policies (F), (T) and (U) and note 23 Fair Value methodology, note 25 Securitised mortgages and related assets and note 27 Financial Investments.

The valuation of the investment portfolio involves judgement and continues to be an area of inherent risk. The risk is not uniform for all investment types and is greatest for the following, where the investments are hard to value because quoted prices are not readily available:

- Commercial mortgage loans (UK Life).
- Equity release and UK securitised mortgage loans (UK Life).
- Structured bond-type investments (France Life).
- Collateralised loan obligations and non-recourse loans (UK Life).

We assessed the Directors' approach to valuation for these hard to value investments by performing the following procedures:

- We agreed data inputs used in the valuation models to underlying documentation on a sample basis.
- We evaluated the methodology and assumptions used by management, including yield curves, discounted cash flows, property growth rates, longevity and liquidity premiums as relevant to each asset class.
- We tested the operation of data integrity and change management controls for the models, which we baseline every three years.
- Using our valuation experts, we performed independent valuations for a sample of collateralised loans, non-recourse loans and structured bonds.
- We assessed the disclosures in the financial statements.

Based on the work performed and the evidence obtained, we consider the methodology and assumptions used by management to be appropriate.

Independent auditors' report to the members of Aviva plc > [Continued](#)

Key audit matter

How our audit addressed the key audit matter

Valuation of a specific UK Life provision (Group)

Refer to Audit Committees' Report, Accounting policies (AA) and note 50 Pension deficits and other provisions (b) Movements on restructuring and other provisions.

UK Life hold a provision relating to a historical issue over pension arrangement advice given by Friends Provident.

The valuation of this provision involves a high degree of judgement and estimation uncertainty due to the time that has elapsed since the advice was given. This increases the potential for the valuation to change as investigations continue.

We assessed the Directors' approach to valuation for this provision by performing the following procedures:

- We agreed data inputs to underlying documentation on a sample basis.
- We evaluated the methodology and key assumptions used by management, including populations of policies impacted.
- We tested the calculation of the provision based on the assumptions applied.
- We assessed the disclosures in the financial statements.

Based on the work performed and the evidence obtained, we consider the assumptions used by management to be appropriate.

We determined that there were no key audit matters applicable to the Company to communicate in our report.

How we tailored the audit scope

We tailored the scope of our audit to ensure that we performed sufficient work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the Group and the Company, the financial reporting process and controls, and the industry in which they operate.

Using the outputs of our risk assessment, along with our understanding of Aviva, we scoped our audit based on the significance of the results and financial position of individual components relative to the Group result and financial position. In doing so, we also considered qualitative factors and ensured we had obtained sufficient coverage across all financial statement line items in the consolidated financial statements. Our scoping provided us with audit coverage of over 80% for both IFRS profit before tax and Group adjusted operating profit before tax and after the deduction of integration and restructuring costs (2017: 80%). We also obtained audit coverage of 83% for Gross Written Premiums (2017: 80%) and 82% for Total Assets (2017: 84%).

The Group's primary reporting format aggregates individual operating segments into market reporting lines with supplementary information being given by business activity. The operating segments or 'markets' of the Group are 'United Kingdom' (Life and General Insurance), France, Poland, 'Italy, Ireland, Spain and Other', Canada, Asia, Aviva Investors and 'Other group activities'. Individual components that are used in our risk assessment are a more granular subset of the Group's operating segments. In establishing the overall approach to the Group audit, we determined the type of work that needed to be performed at each of the components by us, as the Group audit team, or auditors of the components within PwC UK or from other PwC network firms operating under our instructions.

As the Group audit team, we determined the level of involvement required at those components to be able to conclude whether sufficient and appropriate audit evidence had been obtained as a basis for our opinion on the financial statements as a whole. In our role as Group auditors, we exercised oversight over the work performed by auditors of the components including performing the following procedures:

- Maintained an active dialogue with reporting component audit teams throughout the year, including holding a workshop for those teams in London during the planning phase of the audit;
- Visited all in-scope components and undertook a detailed review of audit working papers;
- Attended meetings with local management; and
- Attended certain component Audit Committee meetings

Independent auditors' report to the members of Aviva plc > [Continued](#)

Materiality

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Group financial statements	Company financial statements
Overall materiality	£156.0 million (2017: £147.0 million).	£105.0 million (2017: £55.5 million).
How we determined it	5% of Group adjusted operating profit before tax attributable to shareholders' profits after the deduction of integration and restructuring costs (rounded up to the nearest £'million).	5% of IFRS profit before tax.
Rationale for benchmark applied	In determining our materiality, we considered financial metrics which we believed to be relevant, and concluded, consistent with last year that Group adjusted operating profit before tax and after the deduction of integration and restructuring costs was the most relevant benchmark. Group adjusted operating profit presents a longer-term assessment of the performance of the entity which is more in line with the operations and time horizons of an insurer where insurance contracts and customer relationships span over multiple years.	In determining our materiality, we considered financial metrics which we believed to be relevant, and concluded, consistent with last year that profit before tax was the most relevant benchmark as the Company is profit-orientated and users of the financial statements will be focused on this benchmark.

For each component in the scope of our Group audit, we allocated a materiality that is less than our overall Group materiality. The range of materiality allocated across components was between £20 million and £120 million. Certain components were audited to a local statutory audit materiality that was also less than our overall Group materiality.

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above £7 million (Group audit) (2017: £5 million) and £5.2 million (Company audit) (2017: £2.8 million) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Going concern

In accordance with ISAs (UK) we report as follows:

Reporting obligation	Outcome
We are required to report if we have anything material to add or draw attention to in respect of the directors' statement in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting in preparing the financial statements and the directors' identification of any material uncertainties to the Group's and the Company's ability to continue as a going concern over a period of at least twelve months from the date of approval of the financial statements.	We have nothing material to add or to draw attention to. However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the Group's and Company's ability to continue as a going concern. For example, the terms on which the United Kingdom may withdraw from the European Union, which is currently due to occur on 29 March 2019, are not clear, and, in common with other companies, it is difficult to evaluate all of the potential implications on the Group and Company's business, customers, suppliers and the wider economy.
We are required to report if the directors' statement relating to Going Concern in accordance with Listing Rule 9.8.6R(3) is materially inconsistent with our knowledge obtained in the audit.	We have nothing to report.

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic Report and Directors' and Corporate Governance Report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on the responsibilities described above and our work undertaken in the course of the audit, the Companies Act 2006, (CA06), ISAs (UK) and the Listing Rules of the Financial Conduct Authority (FCA) require us also to report certain opinions and matters as described below (required by ISAs (UK) unless otherwise stated).

Strategic report and Directors' and corporate governance report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic report and Directors' and Corporate Governance Report for the year ended 31 December 2018 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements. (CA06)

In light of the knowledge and understanding of the Group and Company and their environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic report and Directors' and Corporate Governance Report. (CA06)

The directors' assessment of the prospects of the Group and of the principal risks that would threaten the solvency or liquidity of the Group

We have nothing material to add or draw attention to regarding:

- The directors' confirmation on page 51 of the Annual Report that they have carried out a robust assessment of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency or liquidity.
- The disclosures in the Annual Report that describe those risks and explain how they are being managed or mitigated.
- The directors' explanation on page 66 of the Annual Report as to how they have assessed the prospects of the Group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

We have nothing to report having performed a review of the directors' statement that they have carried out a robust assessment of the principal risks facing the Group and statement in relation to the longer-term viability of the Group. Our review was substantially less in scope than an audit and only consisted of making inquiries and considering the directors' process supporting their statements; checking that the statements are in alignment with the relevant provisions of the UK Corporate Governance Code (the 'Code'); and considering whether the statements are consistent with the knowledge and understanding of the Group and Company and their environment obtained in the course of the audit. (Listing Rules)

Other Code Provisions

We have nothing to report in respect of our responsibility to report when:

- The statement given by the directors, on page 66, that they consider the Annual report taken as a whole to be fair, balanced and understandable, and provides the information necessary for the members to assess the Group's and the Company's position and performance, business model and strategy is materially inconsistent with our knowledge of the Group and the Company obtained in the course of performing our audit.
- The section of the Annual report on page 59 describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee.
- The directors' statement relating to the Company's compliance with the Code does not properly disclose a departure from a relevant provision of the Code specified, under the Listing Rules, for review by the auditors.

Directors' Remuneration

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006. (CA06)

Independent auditors' report to the members of Aviva plc > [Continued](#)

Responsibilities for the financial statements and the audit

Responsibilities of the directors for the financial statements

As explained more fully in the Directors' Responsibilities Statement set out on page 67, the directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Auditors' responsibilities for the audit of the financial statements

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

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

Use of this report

This report, including the opinions, has been prepared for and only for the Company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting

Companies Act 2006 exception reporting

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the Company, or returns adequate for our audit have not been received from branches not visited by us; or
- certain disclosures of directors' remuneration specified by law are not made; or
- the Company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

Appointment

Following the recommendation of the audit committee, we were appointed by the members on 3 May 2012 to audit the financial statements for the year ended 31 December 2012 and subsequent financial periods. The period of total uninterrupted engagement is seven years, covering the years ended 31 December 2012 to 31 December 2018.

Marcus Hine (Senior Statutory Auditor)

for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
London
6 March 2019

1 The maintenance and integrity of the Aviva plc website is the responsibility of the directors; the work carried out by the auditors does not involve consideration of these matters and, accordingly the auditors accept no responsibility for any changes that may have occurred to the full annual financial statements since they were initially presented on the website.

2 Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Accounting policies

Aviva plc (the 'Company'), a public limited company incorporated and domiciled in the United Kingdom (UK), together with its subsidiaries (collectively, the 'Group' or 'Aviva') transacts life assurance and long-term savings business, fund management and most classes of general insurance and health business through its subsidiaries, joint ventures, associates and branches in the UK, Ireland, continental Europe, Canada and Asia.

The principal accounting policies adopted in the preparation of these financial statements are set out below. These policies have been consistently applied to all years presented, unless otherwise stated.

(A) Basis of preparation

The consolidated financial statements and those of the Company have been prepared and approved by the Directors in accordance with International Financial Reporting Standards (IFRS) as endorsed by the European Union (EU), and those parts of the Companies Act 2006 applicable to those reporting under IFRS. The consolidated financial statements have been prepared under the historical cost convention, as modified by the revaluation of land and buildings, investment property, available-for-sale financial assets, and financial assets and financial liabilities (including derivative instruments) at fair value through profit or loss.

In accordance with IFRS 4 *Insurance Contracts*, the Group has applied existing accounting practices for insurance and participating investment contracts, modified as appropriate to comply with the IFRS framework and applicable standards. Further details are given in accounting policy L.

Items included in the financial statements of each of the Group's entities are measured in the currency of the primary economic environment in which that entity operates (the functional currency). The consolidated financial statements are stated in pounds sterling, which is the Company's functional and presentational currency. Unless otherwise noted, the amounts shown in these financial statements are in millions of pounds sterling (£m). The separate financial statements of the Company are on pages 242 to 252.

Comparative figures have been restated for adjustments as detailed in note 1.

New standards, interpretations and amendments to published standards that have been adopted by the Group

The Group and/or the Company has adopted the following amendments to standards which became effective for the annual reporting period beginning on 1 January 2018:

(i) Amendments to IFRS 4, *Insurance Contracts*

In September 2016, the IASB published amendments to IFRS 4 *Insurance Contracts* that address the accounting consequences of the application of IFRS 9 to insurers prior to implementing the new accounting standard for insurance contracts, IFRS 17, which replaces IFRS 4. The amendments introduce two options for insurers: the deferral approach and the overlay approach. The deferral approach provides an entity, if eligible, with a temporary exemption from applying IFRS 9. The overlay approach allows an entity to remove from profit or loss the effects of some of the accounting mismatches that may occur before the new insurance contracts standard is applied. In November 2018 the IASB recommended an amendment to IFRS 17 to defer the effective date to 1 January 2022. At the same time, they recommended an extension to the fixed expiry date for the temporary exemption for insurers from applying IFRS 9 until 1 January 2022. These amendments are subject to IASB's due process and will be included in an exposure draft expected to be published later in 2019.

The carrying amount of the Group's liabilities connected with insurance exceeded 90% of the carrying amount of the Group's total liabilities as at 31 December 2015, when the assessment was performed in accordance with the date specified in the amendments to IFRS 4. As such, the Group is eligible to apply the deferral approach, as defined by the amendments to IFRS 4. The Group has opted to apply this deferral from 2018. At 31 December 2015 the Group's total liabilities were £369,642 million and liabilities connected with insurance in the statement of financial position at this date primarily included insurance and participating investment contracts within the scope of IFRS 4 (£218,604 million), non-participating investment contract liabilities (£103,125 million), unallocated divisible surplus (£8,811 million), borrowings (£8,770 million), and certain amounts within payables and other financial liabilities which arise in the course of writing insurance business (£10,285 million).

IFRS 9 information relating to entities within the Group which have applied the standard from 1 January 2018 can be found in the entities' publicly available individual financial statements.

(ii) IFRS 9, *Financial Instruments (Company only)*

In July 2014, the IASB published IFRS 9, *Financial Instruments* which replaced IAS 39 *Financial Instruments: Recognition and Measurement*. The standard incorporates new classification and measurement requirements for financial assets, the introduction of an expected credit loss impairment model which will replace the incurred loss model of IAS 39, and new hedge accounting requirements. Under IFRS 9, all financial assets will be measured at either amortised cost or fair value. The basis of classification will depend on the business model and the contractual cash flow characteristics of the financial assets. The standard retains most of IAS 39's requirements for financial liabilities except for those designated at fair value through profit or loss whereby that part of the fair value changes attributable to own credit is to be recognised in other comprehensive income instead of the income statement. The hedge accounting requirements are more closely aligned with risk management practices and follow a more principle based approach.

The Group has opted to defer the adoption of IFRS 9 from 2018. The impact of the adoption of IFRS 9 on the Group's consolidated financial statements will be largely dependent on the interaction with the new insurance contracts standard IFRS 17. As such, it is not possible to fully assess the effect of the adoption of IFRS 9. IFRS 9 has been endorsed by the EU.

The Group has however been required to apply the additional disclosure requirements of IFRS 9 which are set out in note 53 and note 59.

Although the Group has opted to defer adoption of IFRS 9 as its activities are predominantly related to insurance, the Company is not eligible to apply this deferral option and IFRS 9 was effective for the Company from 1 January 2019. The adoption of IFRS 9 has not had a significant impact on the Company.

(iii) IFRS 15, *Revenue from Contracts with Customers*

In May 2014, the IASB issued IFRS 15 *Revenue from Contracts with Customers*. This standard applies to annual reporting periods beginning on or after 1 January 2018 and has been endorsed by the EU. This standard replaces IAS 18 *Revenue*.

The scope of IFRS 15 includes all contracts where an Aviva company has agreed to provide goods or services to a customer, except for the following:

- Insurance contracts (IFRS 4)
- Financial instruments (IAS 39/IFRS 9)
- Leases (IAS 17)

The adoption of this standard has resulted in the following minor amendments to the Group accounting policies:

- (I) Other investment contract fee revenue – updated to clarify that fees related to investment management services are recognised as revenue over time, as performance obligations are satisfied. Variable consideration, such as performance fees and commission subject to clawback arrangements, are only recorded as revenue to the extent it is highly probable that it will not be subject to significant reversal.
- (J) Other fee and commission income – updated to clarify that all other fee and commission income is recognised over time as the services are provided.

The retrospective impact of the adoption of IFRS 15 on prior reporting periods is not material to the Group, and prior period comparative figures have not been restated as a result. The adoption of IFRS 15 does not have a significant impact on the Group's consolidated financial statements.

The following amendments to existing standards and IFRIC interpretations have been issued, and are effective from 1 January 2018 or earlier, and do not have an impact on the Group's consolidated financial statements as the clarifications are consistent with our existing interpretation.

(iv) Amendments to IFRS 2: Classification and Measurement of Share-based Payment Transactions

In June 2016, the IASB issued amendments to IFRS 2 *Share-based Payment*. The amendments were endorsed by the EU in February 2018 and are effective from 1 January 2018.

(v) Annual Improvements to IFRSs 2014-2016

These improvements consist of amendments to three IFRSs including IFRS 1 *First-time Adoption of International Financial Reporting Standards*, IFRS 12 *Disclosure of Interests in Other Entities* and IAS 28 *Investments in Associates*. The amendment to IFRS 12 was effective for annual reporting periods beginning on or after 1 January 2017. The amendments to IFRS 1 and IAS 28 are effective for annual reporting periods beginning on or after 1 January 2018. The amendments were endorsed by the EU in February 2018.

(vi) Amendments to IAS 40 – Transfers of Investment Property

In December 2016, the IASB published amendments to IAS 40 *Investment Property*. The amendments are effective from 1 January 2018 and have been endorsed by the EU.

(vii) IFRIC 22, Foreign Currency Transactions and Advance Consideration

In December 2016, the IASB published IFRIC 22 *Foreign Currency Transactions and Advance Consideration*. The standard is effective for annual reporting beginning on or after 1 January 2018 and has been endorsed by the EU.

Standards, interpretations and amendments to published standards that are not yet effective and have not been adopted early by the Group or the Company

The following new standards and amendments to existing standards have been issued, are not yet effective and have not been adopted early by the Group:

(i) IFRS 17, Insurance Contracts

In May 2017, the IASB published IFRS 17 *Insurance Contracts*, a comprehensive new accounting standard for insurance

contracts covering recognition and measurement, presentation and disclosure. Once effective, IFRS 17 will replace IFRS 4 that was issued in 2005. IFRS 17 applies to all types of insurance contracts as well as to certain guarantees and financial instruments with discretionary participation features. In contrast to the requirements in IFRS 4, which are largely based on grandfathering of previous local accounting policies, IFRS 17 provides a comprehensive and consistent approach to insurance contracts. The core of IFRS 17 is the general model, supplemented by a specific adaption for contracts with direct participation features (the variable fee approach) and a simplified approach (the premium allocation approach) mainly for short-duration contracts.

The main features of the new accounting model for insurance contracts are, as follows: the measurement of the present value of future cash flows incorporating an explicit risk adjustment and remeasured at each reporting period (the fulfilment cash flows); a contractual service margin that is equal and opposite to any day one gain in the fulfilment cash flows of a group of contracts, representing the unearned profit of the insurance contracts to be recognised in profit or loss over the service period (coverage period); the presentation of insurance revenue and insurance service expenses in the statement of comprehensive income based on the concept of insurance services provided during the period; and extensive disclosures to provide information on the recognised amounts from insurance contracts and the nature and extent of risks arising from these contracts.

The impact of the adoption of IFRS 17 has yet to be fully assessed by the Group but it is expected there will be significant impacts relating to the measurement and presentation of the contracts in scope of the standard. It is expected that the standard will apply to annual reporting periods beginning on or after 1 January 2022 and this standard has not yet been endorsed by the EU.

(ii) IFRS 16, Leases

In January 2016, the IASB published IFRS 16 *Leases* which will replace IAS 17 *Leases*. IFRS 16 introduces a definition of a lease with a single lessee accounting model eliminating the classification of either operating or finance leases. Lessees will be required to account for all leases in a similar manner to the current finance lease accounting recognising lease assets and liabilities on the statement of financial position. Lessor accounting remains similar to current practice.

The impact of the adoption of IFRS 16 on the Group has been assessed. The Group has chosen to adopt the modified retrospective approach on transition permitted by IFRS 16. It is expected that the adoption of the standard will result in a reduction of retained earnings of between £120m and £140m at 1 January 2019. This arises from the value of right of use assets brought onto the balance sheet being lower than the value of lease liabilities due to the different rates of run-off. The gross impact on assets/liabilities is expected to be less than £500m. The impact on profit before tax and group adjusted operating profit is not expected to be material. This standard is applied to annual reporting periods beginning on or after 1 January 2019 and has been endorsed by the EU.

The following new standards and amendments to existing standards have been issued, are not yet effective and are not expected to have a significant impact on the Group's consolidated financial statements:

(iii) IFRIC 23, Uncertainty over Income Tax Treatments

In June 2017, the IASB published IFRIC 23 *Uncertainty over Income Tax Treatments*. The standard is effective for annual

reporting beginning on or after 1 January 2019 and has been endorsed by the EU.

(iv) Amendments to IAS 19 – Plan Amendment, Curtailment or Settlement

In February 2018, the IASB published *Plan Amendment, Curtailment or Settlement (Amendments to IAS 19)*. The amendments are effective for annual reporting beginning on or after 1 January 2019 and have not yet been endorsed by the EU.

(v) Amendments to IAS 28: Long-term Interests in Associates and Joint Ventures

In October 2017, the IASB published *Long-term Interests in Associates and Joint Ventures (Amendments to IAS 28)*. The amendments are effective for annual reporting beginning on or after 1 January 2019 and have been endorsed by the EU.

(vi) Annual Improvements to IFRS Standards 2015-2017 Cycle

These improvements consist of amendments to four IFRSs including IFRS 3 *Business Combinations*, IFRS 11 *Joint Arrangements*, IAS 12 *Income taxes* and IAS 23 *Borrowing Costs*. The amendments are effective for annual reporting beginning on or after 1 January 2019 and have not yet been endorsed by the EU.

(vii) Amendments to References to the Conceptual Framework in IFRS Standards

Published by the IASB in March 2018. The amendments are effective for annual reporting beginning on or after 1 January 2020 and have not yet been endorsed by the EU.

(viii) Amendment to IFRS 3, Business Combinations, IAS 1 and IAS 8: Definition of material

Published by the IASB in October 2018. The amendments are effective for annual reporting beginning on or after 1 January 2020 and have not yet been endorsed by the EU.

(B) Group adjusted operating profit

The long-term nature of much of the Group's operations means that, for management's decision-making and internal performance management of our operating segments, the Group focuses on Group adjusted operating profit, a non-GAAP alternative performance measure (APM) which is not bound by IFRS. The APM incorporates the expected return on investments which supports its long-term and non-long-term businesses.

Group adjusted operating profit for long-term business is based on expected investment returns on financial investments backing shareholder and policyholder funds over the reporting period, with allowance for the corresponding expected movements in liabilities. Variances between actual and expected investment returns, and the impact of changes in economic assumptions on liabilities, are disclosed separately outside Group adjusted operating profit. For non-long-term business, the total investment income, including realised and unrealised gains, is analysed between that calculated using a longer-term return and short-term fluctuations from that level. The exclusion of short-term realised and unrealised investment gains and losses from the Group adjusted operating profit APM reflects the long-term nature of much of our business and presents separately the operating profit APM which is used in managing the performance of our operating segments from the impact of economic factors. Further details of this analysis and the assumptions used are given in notes 9 and 10.

Group adjusted operating profit is presented before and after integration and restructuring costs. These costs are only reported to the extent that they are significant, and not otherwise absorbed within operating costs.

Group adjusted operating profit also excludes impairment of goodwill, associates and joint ventures; amortisation and impairment of other intangibles; amortisation and impairment of acquired value of in-force business; and the profit or loss on disposal and remeasurement of subsidiaries, joint ventures and associates. These items principally relate to mergers and acquisition activity which we view as strategic in nature, hence they are excluded from the operating profit APM as this is principally used to manage the performance of our operating segments when reporting to the Group's chief operating decision maker. Other items are those items that, in the Directors' view, are required to be separately disclosed by virtue of their nature or incidence to enable a full understanding of the Group's financial performance. Details of these items, including an explanation of the rationale for their exclusion, are provided in the Alternative Performance Measures section within 'Other information'.

The Group adjusted operating profit APM should be viewed as complementary to IFRS GAAP measures. It is important to consider Group adjusted operating profit and profit before tax together to understand the performance of the business in the period.

(C) Critical accounting policies and the use of estimates

Critical accounting policies

The preparation of financial statements requires the Group to select accounting policies and make estimates and assumptions that affect items reported in the consolidated income statement, consolidated statement of financial position, other primary statements and notes to the consolidated financial statements.

The Audit Committee reviews the reasonableness of judgements and assumptions applied and the appropriateness of significant accounting policies. The significant issues considered by the Committee in the year are included within the Audit Committee Report on page 58.

The following accounting policies are those that have the most significant impact on the amounts recognised in the financial statements, with those judgements involving estimation summarised thereafter.

Item	Critical accounting judgement	Accounting policy
Consolidation	Assessment of whether the Group controls the underlying entities including consideration of its decision making authority and rights to the variable returns from the entity	D
Insurance and participating investment contract liabilities	Assessment of the significance of insurance risk transferred to the Group in determining whether a contract should be accounted for as insurance or investment contract	G
Financial investments	Classification of investments including the application of the fair value option	T

All estimates are based on management's knowledge of current facts and circumstances, assumptions based on that knowledge and their predictions of future events and actions. Actual results may differ from those estimates, possibly significantly.

The table below sets out those items considered particularly susceptible to changes in estimates and assumptions, and the relevant accounting policy and note disclosures.

Item	Critical accounting estimates	Accounting policy	Note
Measurement of insurance and participating investment contract liabilities	Principal assumptions used in the calculation of life insurance and participating investment contract liabilities include those in respect of annuitant mortality, expenses, valuation interest rates and credit default allowances on corporate bonds and other non-sovereign credit assets. Principal assumptions used in the calculation of general insurance and health liabilities include the discount rates used in determining our latent claim and structured settlements liabilities, and the assumption that past claims experience can be used as a basis to project future claims (estimated using a range of standard actuarial claims projection techniques).	L	43(a) 43(b)
Acquired value of in-force business (AVIF) and intangible assets	AVIF is recognised, amortised and tested for impairment by reference to the present value of estimated future profits. Other intangible assets are recognised and tested for impairment using an income approach method. Significant estimates include forecast cash flows, discount rates and determination of useful lives.	O	18(a) 18(b)
Fair value of financial instruments and investment property	Where quoted market prices are not available, valuation techniques are used to value financial instruments and investment property. These include broker quotes and models using both observable and unobservable market inputs. The valuation techniques involve judgement with regard to the valuation models used and the inputs to these models can lead to a range of plausible valuation for financial investments.	F,T,U	23(g)
Deferred acquisition costs	Management use estimation techniques to determine the amortisation profile and impairment test by reference to the present value of estimated future profits. These tests are sensitive to expense and lapse assumptions.	X	29(b)
Valuation of a specific UK Life provision	UK Life hold a product governance provision relating to a historical issue over pension arrangement advised sales by Friends Provident. The amount of provision is determined based on the Group's estimation of the expenditure required to settle the obligation at the statement of financial position date. The valuation of the provision involves a high degree of judgement and estimation uncertainty due to the time that has elapsed since the advice was given.	AA	50

During the year management reassessed the critical estimates previously provided and, based on their assessment of qualitative and quantitative risk factors, resolved that an additional critical estimate should be added to cover the valuation of a specific UK Life provision.

(D) Consolidation principles

(D) Consolidated Subsidiaries

Subsidiaries are those entities over which the Group has control. The Group controls an investee if and only if the Group has all of the following:

- power over the investee,
- exposure, or rights, to variable returns from its involvement with the investee, and
- the ability to use its power over the investee to affect its returns.

The Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including: the purpose and design of an investee, relevant activities, substantive and protective rights, and voting rights and potential voting rights.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control. Subsidiaries are consolidated from the date the Group obtains control and are excluded from consolidation from the date the Group loses control. All intercompany transactions, balances and unrealised surpluses and deficits on transactions between Group companies have been eliminated. Accounting policies of subsidiaries are aligned on acquisition to ensure consistency with Group policies.

The Group is required to use the acquisition method of accounting for business combinations. Under this method, the Group recognises identifiable assets, liabilities and contingent liabilities at fair value, and any non-controlling interest in the acquiree. For each business combination, the Group has the option to measure the non-controlling interest in the acquiree either at fair value or at the proportionate share of the acquiree's identifiable net assets. The excess of the consideration transferred over the fair value of the net assets of the subsidiary acquired is recorded as goodwill (see accounting policy O below). Acquisition-related costs are expensed as incurred.

Transactions with non-controlling interests that lead to changes in the ownership interests in a subsidiary but do not result in a loss of control are treated as equity transactions.

Merger accounting and the merger reserve

Prior to 1 January 2004, the date of first time adoption of IFRS, certain significant business combinations were accounted for using the 'pooling of interests method' (or merger accounting), which treats the merged groups as if they had been combined throughout the current and comparative accounting periods. Merger accounting principles for these combinations gave rise to a merger reserve in the consolidated statement of financial position, being the difference between the nominal value of new shares issued by the Parent Company for the acquisition of the shares of the subsidiary and the subsidiary's own share capital and share premium account. These transactions have not been restated, as permitted by the IFRS 1 transitional arrangements.

The merger reserve is also used where more than 90% of the shares in a subsidiary are acquired and the consideration includes the issue of new shares by the Company, thereby attracting merger relief under the Companies Act 1985 and, from 1 October 2009, the Companies Act 2006.

Investment vehicles

Investment Vehicles

In several countries, the Group has invested in a number of specialised investment vehicles such as Open-ended Investment Companies (OEICs) and unit trusts. These invest mainly in equities, bonds, cash and cash equivalents, and properties, and distribute most of their income. The Group's percentage ownership in these vehicles can fluctuate from day to day according to the Group's and third-party participation in them. When assessing control over investment vehicles, along with the factors determining control

outlined above, the Group considers the scope of its decision-making authority including its ability to direct the relevant activities of the fund and exposure to variability of returns from the perspective of an investor in the fund and of the asset manager. In addition, the Group assesses rights held by other parties including substantive removal rights that may affect the Group's ability to direct the relevant activities and indicate that the Group does not have power. Where the Group is deemed to control such vehicles, they are consolidated, with the interests of parties other than Aviva being classified as liabilities. These appear as 'Net asset value attributable to unitholders' in the consolidated statement of financial position.

Where the Group does not control such vehicles, and these investments are held by its insurance or investment funds, they are carried at fair value through profit or loss within financial investments in the consolidated statement of financial position, in accordance with IAS 39 *Financial Instruments: Recognition and Measurement*.

As part of their investment strategy, long-term business policyholder funds have invested in a number of property limited partnerships (PLPs), either directly or via property unit trusts (PUTs), through a mix of capital and loans. The PLPs are managed by general partners (GPs), in which the long-term business shareholder companies hold equity stakes and which themselves hold nominal stakes in the PLPs. The PUTs are managed by a Group subsidiary.

Accounting for the PUTs and PLPs as subsidiaries, joint ventures, associates or other financial investments depends on whether the Group is deemed to have control or joint control over the PUTs and PLPs' shareholdings in the GPs and the terms of each partnership agreement are considered along with other factors that determine control, as outlined above. Where the Group exerts control over a PUT or a PLP, it has been treated as a subsidiary and its results, assets and liabilities have been consolidated. Where the partnership is managed by an agreement such that there is joint control between the parties, notwithstanding that the Group's partnership share in the PLP (including its indirect stake via the relevant PUT and GP) may be lower or higher than 50%, such PUTs and PLPs have been classified as joint ventures (see below). Where the Group has significant influence over the PUT or PLP, as defined in the following section, the PUT or PLP is classified as an associate. Where the Group holds non-controlling interests in PLPs, with no significant influence or control over their associated GPs, the relevant investments are carried at fair value through profit or loss within financial investments.

Associates and joint ventures

Associates are entities over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee, but is not control or joint control. Generally, it is presumed that the Group has significant influence if it has between 20% and 50% of voting rights. Joint ventures are joint arrangements whereby the Group and other parties that have joint control of the arrangement have rights to the net assets of the joint venture. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control. In a number of these, the Group's share of the underlying assets and liabilities may be greater or less than 50% but the terms of the relevant agreements make it clear that control is not exercised. Such jointly controlled entities are referred to as joint ventures in these financial statements.

Gains on transactions between the Group and its associates and joint ventures are eliminated to the extent of the Group's interest in the associates and joint ventures. Losses are also eliminated, unless

the transaction provides evidence of an impairment of the asset transferred between entities.

Other than investments in investment vehicles which are carried at fair value through profit or loss, investments in associates and joint ventures are accounted for using the equity method of accounting. Under this method, the cost of the investment in a given associate or joint venture, together with the Group's share of that entity's post-acquisition changes to shareholders' funds, is included as an asset in the consolidated statement of financial position. As explained in accounting policy O, the cost includes goodwill recognised on acquisition. The Group's share of their post-acquisition profit or losses is recognised in the income statement and its share of post-acquisition movements in reserves is recognised in reserves. Equity accounting is discontinued when the Group no longer has significant influence or joint control over the investment.

If the Group's share of losses in an associate or joint venture equals or exceeds its interest in the undertaking, the Group does not recognise further losses unless it has incurred obligations or made payments on behalf of the entity.

The Company's investments

In the Company's statement of financial position, subsidiaries, associates and joint ventures are stated at cost less impairment. Investments are reviewed annually to test whether any indicators of impairment exist. Where there is objective evidence of such an asset being impaired the investment is impaired to its recoverable value and any unrealised loss is recorded in the income statement.

(E) Foreign currency translation

Income statements and cash flows of foreign entities are translated into the Group's presentation currency at average exchange rates for the year while their statements of financial position are translated at the year-end exchange rates. Exchange differences arising from the translation of the net investment in foreign subsidiaries, associates and joint ventures, and of borrowings and other currency instruments designated as hedges of such investments, are recognised in other comprehensive income and taken to the currency translation reserve within equity. On disposal of a foreign entity, such exchange differences are transferred out of this reserve and are recognised in the income statement as part of the gain or loss on sale. The cumulative translation differences were deemed to be zero at the transition date to IFRS.

Foreign currency transactions are accounted for at the exchange rates prevailing at the date of the transactions. Gains and losses resulting from the settlement of such transactions, and from the translation of monetary assets and liabilities denominated in foreign currencies, are recognised in the income statement.

Translation differences on debt securities and other monetary financial assets measured at fair value and designated as held at fair value through profit or loss (FVTPL) (see accounting policy T) are included in foreign exchange gains and losses in the income statement. For monetary financial assets designated as available for sale (AFS), translation differences are calculated as if they were carried at amortised cost and so are recognised in the income statement, while foreign exchange differences arising from fair value gains and losses are recognised in other comprehensive income and included in the investment valuation reserve within equity. Translation differences on non-monetary items, such as equities which are designated as FVTPL, are reported as part of the fair value gain or loss, whereas such differences on AFS equities are included in the investment valuation reserve.

(F) Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. This presumes that the transaction takes place in the principal (or most advantageous) market under current market conditions. Fair value is a market-based measure and in the absence of observable market prices in an active market, it is measured using the assumptions that market participants would use when pricing the asset or liability.

The fair value of a non-financial asset is determined based on its highest and best use from a market participant's perspective. When using this approach, the Group takes into account the asset's use that is physically possible, legally permissible and financially feasible.

The best evidence of the fair value of a financial instrument at initial recognition is normally the transaction price i.e. the fair value of the consideration given or received. In certain circumstances, the fair value at initial recognition may differ from the transaction price. If the fair value is evidenced by comparison with other observable current market transactions in the same instrument (i.e. without modification or repackaging), or is based on a valuation technique whose variables include only data from observable markets, then the difference between the fair value at initial recognition and the transaction price is recognised as a gain or loss in the income statement. When unobservable market data has a significant impact on the valuation of financial instruments, the difference between the fair value at initial recognition and the transaction price is not recognised immediately in the income statement, but deferred and recognised in the income statement on an appropriate basis over the life of the instrument but no later than when the valuation is supported wholly by observable market data or the transaction is closed out or otherwise matured.

If an asset or a liability measured at fair value has a bid price and an ask price, the price within the bid-ask spread that is most representative of fair value in the circumstances is used to measure fair value.

(G) Product classification

Insurance contracts are defined as those containing significant insurance risk if, and only if, an insured event could cause an insurer to make significant additional payments in any scenario, excluding scenarios that lack commercial substance, at the inception of the contract. Such contracts remain insurance contracts until all rights and obligations are extinguished or expire. Contracts can be reclassified as insurance contracts after inception if insurance risk becomes significant. Any contracts not considered to be insurance contracts under IFRS are classified as investment contracts. Some insurance and investment contracts contain a discretionary participation feature, which is a contractual right to receive additional benefits as a supplement to guaranteed benefits. These are referred to as participating contracts.

As noted in accounting policy A, insurance contracts and participating investment contracts in general continue to be measured and accounted for under existing accounting practices at the later of the date of transition to IFRS ('grandfathered') or the date of the acquisition of the entity, in accordance with IFRS 4. IFRS accounting for insurance contracts in UK companies was grandfathered at the date of transition to IFRS and determined in accordance with the Statement of Recommended Practice issued by the Association of British Insurers (subsequently withdrawn by the ABI in 2015).

In certain businesses, the accounting policies or accounting estimates have been changed, as permitted by IFRS 4 and IAS 8 respectively, to remeasure designated insurance liabilities to reflect

current market interest rates and changes to regulatory capital requirements. When accounting policies or accounting estimates have been changed, and adjustments to the measurement basis have occurred, the financial statements of that year will have disclosed the impacts accordingly. One such example is our adoption of Financial Reporting Standard 27 *Life Assurance* (FRS 27) which was issued by the UK's Accounting Standards Board (ASB) in December 2004 (subsequently withdrawn by the ASB in 2015).

(H) Premiums earned

Premiums on long-term insurance contracts and participating investment contracts are recognised as income when receivable, except for investment-linked premiums which are accounted for when the corresponding liabilities are recognised. For single premium business, this is the date from which the policy is effective. For regular premium contracts, receivables are recognised at the date when payments are due. Premiums are shown before deduction of commission and before any sales-based taxes or duties. Where policies lapse due to non-receipt of premiums, then all the related premium income accrued but not received from the date they are deemed to have lapsed is offset against premiums.

General insurance and health premiums written reflect business inception during the year, and exclude any sales-based taxes or duties. Unearned premiums are those proportions of the premiums written in a year that relate to periods of risk after the statement of financial position date. Unearned premiums are calculated on either a daily or monthly pro rata basis. Premiums collected by intermediaries, but not yet received, are assessed based on estimates from underwriting or past experience, and are included in premiums written.

Deposits collected under investment contracts without a discretionary participation feature (non-participating contracts) are not accounted for through the income statement, except for the fee income (covered in accounting policy I) and the investment income attributable to those contracts, but are accounted for directly through the statement of financial position as an adjustment to the investment contract liability.

(I) Other investment contract fee revenue

Investment contract policyholders are charged fees for policy administration, investment management, surrenders or other contract services. The fees may be for fixed amounts or vary with the amounts being managed, and will generally be charged as an adjustment to the policyholder's balance. Fees related to investment management services are recognised as revenue over time, as performance obligations are satisfied. In most cases this revenue is recognised in the same period in which the fees are charged to the policyholder. Fees that are related to services to be provided in future periods are deferred and recognised when the performance obligation is fulfilled. Variable consideration, such as performance fees and commission subject to clawback arrangements, is not recognised as revenue until it is reasonably certain that no significant reversal of amounts recognised would occur.

Initiation and other 'front-end' fees (fees that are assessed against the policyholder balance as consideration for origination of the contract) are charged on some non-participating investment and investment fund management contracts. Where the investment contract is recorded at amortised cost, these fees are deferred and recognised over the expected term of the policy by an adjustment to the effective yield. Where the investment contract is measured at fair value, the front-end fees that relate to the provision of investment management services are deferred and recognised as the services are provided. Origination fees are recognised immediately where the sale of fund interests represent a separate performance obligation.

(J) Other fee and commission income

Other fee and commission income consists primarily of fund management fees, distribution fees from mutual funds, commissions on reinsurance ceded, commission revenue from the sale of mutual fund shares and transfer agent fees for shareholder record keeping. Reinsurance commissions receivable are deferred in the same way as acquisition costs, as described in accounting policy X. All other fee and commission income is recognised over time as the services are provided.

(K) Net investment income

Investment income consists of dividends, interest and rents receivable for the year, movements in amortised cost on debt securities, realised gains and losses, and unrealised gains and losses on FVTPL investments (as defined in accounting policy T). Dividends on equity securities are recorded as revenue on the ex-dividend date. Interest income is recognised as it accrues, taking into account the effective yield on the investment. It includes the interest rate differential on forward foreign exchange contracts. Rental income is recognised on an accruals basis, and is recognised on a straight line basis unless there is compelling evidence that benefits do not accrue evenly over the period of the lease.

A gain or loss on a financial investment is only realised on disposal or transfer, and is the difference between the proceeds received, net of transaction costs, and its original cost or amortised cost, as appropriate.

Unrealised gains and losses, arising on investments which have not been derecognised as a result of disposal or transfer, represent the difference between the carrying value at the year end and the carrying value at the previous year end or purchase value during the year, less the reversal of previously recognised unrealised gains and losses in respect of disposals made during the year. Realised gains or losses on investment property represent the difference between the net disposal proceeds and the carrying amount of the property.

(L) Insurance and participating investment contract liabilities

Claims

Long-term business claims reflect the cost of all claims arising during the year, including claims handling costs, as well as policyholder bonuses accrued in anticipation of bonus declarations.

General insurance and health claims incurred include all losses occurring during the year, whether reported or not, related handling costs, a reduction for the value of salvage and other recoveries, and any adjustments to claims outstanding from previous years.

Claims handling costs include internal and external costs incurred in connection with the negotiation and settlement of claims. Internal costs include all direct expenses of the claims department and any part of the general administrative costs directly attributable to the claims function.

Long-term business provisions

Under current IFRS requirements, insurance and participating investment contract liabilities are measured using accounting policies consistent with those adopted previously under existing accounting practices, with the exception of liabilities remeasured to reflect current market interest rates to be consistent with the value of the backing assets, and those relating to UK with-profits and non-profit contracts.

The long-term business provisions are calculated separately for each life operation, based either on local regulatory requirements or existing local GAAP (at the later of the date of transition to IFRS or the date of the acquisition of the entity); and actuarial principles consistent with those applied in each local market. Each calculation

represents a determination within a range of possible outcomes, where the assumptions used in the calculations depend on the circumstances prevailing in each life operation. The principal assumptions are disclosed in note 43(a). For the UK with-profits funds, FRS 27 required liabilities to be calculated on the realistic basis adjusted to remove the shareholders' share of future bonuses. FRS 27 was grandfathered from UK regulatory requirements prior to the adoption of Solvency II. For UK non-profit insurance contracts, the liabilities are calculated using the gross premium valuation method. This method uses the amount of contractual premiums payable and includes explicit assumptions for interest and discount rates, mortality and morbidity, persistency and future expenses. These assumptions are set on a prudent basis and can vary by contract type and reflect current and expected future experience. These estimates depend upon the outcome of future events and may need to be revised as circumstances change. The liabilities are based on the UK regulatory requirements prior to the adoption of Solvency II, adjusted to remove certain regulatory reserves and margins in assumptions, notably for annuity business.

Unallocated divisible surplus

In certain participating long-term insurance and investment business, the nature of the policy benefits is such that the division between shareholder reserves and policyholder liabilities is uncertain. Amounts whose allocation to either policyholders or shareholders has not been determined by the end of the financial year are held within liabilities as an unallocated divisible surplus.

If the aggregate carrying value of liabilities for a particular participating business fund is in excess of the aggregate carrying value of its assets, then the difference is held as a negative unallocated divisible surplus balance, subject to recoverability from margins in that fund's participating business. Any excess of this difference over the recoverable amount is charged to net income in the reporting period.

Embedded derivatives

Embedded derivatives that meet the definition of an insurance contract or correspond to options to surrender insurance contracts for a set amount (or based on a fixed amount and an interest rate) are not separately measured. All other embedded derivatives are separated and measured at fair value if they are not considered closely related to the host insurance contract or do not meet the definition of an insurance contract. Fair value reflects own credit risk to the extent the embedded derivative is not fully collateralised.

Liability adequacy

At each reporting date, an assessment is made of whether the recognised long-term business provisions are adequate, using current estimates of future cash flows. If that assessment shows that the carrying amount of the liabilities (less related assets) is insufficient in light of the estimated future cash flows, the deficiency is recognised in the income statement by setting up an additional provision in the statement of financial position.

General insurance and health provisions

Outstanding claims provisions

General insurance and health outstanding claims provisions are based on the estimated ultimate cost of all claims incurred but not settled at the statement of financial position date, whether reported or not, together with related claims handling costs. Significant delays are experienced in the notification and settlement of certain types of general insurance claims, particularly in respect of liability business, including environmental and pollution exposures, the ultimate cost of which cannot be known with certainty at the statement of financial position date. As such, booked claim provisions for general insurance and health insurance are based on the best estimate of the cost of future claim payments plus an

explicit allowance for risk and uncertainty. Any estimate represents a determination within a range of possible outcomes. Further details of estimation techniques are given in note 43(b).

Provisions for latent claims and claims that are settled on an annuity type basis such as structured settlements are discounted, in the relevant currency at the reporting date, having regard to the expected settlement dates of the claims and the nature of the liabilities. The discount rate is set at the start of the accounting period with any change in rates between the start and end of the accounting period being reflected below operating profit as an economic assumption change. The range of discount rates used is described in note 43(b). Outstanding claims provisions are valued net of an allowance for expected future recoveries. Recoveries include non-insurance assets that have been acquired by exercising rights to salvage and subrogation under the terms of insurance contracts. Where material, anticipated recoveries are disclosed under receivables and not deducted from outstanding claims provisions.

Provision for unearned premiums

The proportion of written premiums, gross of commission payable to intermediaries, attributable to subsequent periods is deferred as a provision for unearned premiums. The change in this provision is taken to the income statement as recognition of revenue over the period of risk.

Liability adequacy

At each reporting date, the Group reviews its unexpired risks and carries out a liability adequacy test for any overall excess of expected claims and deferred acquisition costs over unearned premiums, using the current estimates of future cash flows under its contracts after taking account of the investment return expected to arise on assets relating to the relevant general business provisions. If these estimates show that the carrying amount of its insurance liabilities (less related deferred acquisition costs) is insufficient in light of the estimated future cash flows, the deficiency is recognised in the income statement by setting up a provision in the statement of financial position.

Other assessments and levies

The Group is subject to various periodic insurance-related assessments or guarantee fund levies. Related provisions are established where there is a present obligation (legal or constructive) as a result of a past event. Such amounts are not included in insurance liabilities but are included under 'Pension deficits and other provisions' in the statement of financial position.

(M) Non-participating investment contract liabilities Claims

For non-participating investment contracts with an account balance, claims reflect the excess of amounts paid over the account balance released.

Contract liabilities

Deposits collected under non-participating investment contracts are not accounted for through the income statement, except for the investment income attributable to those contracts, but are accounted for directly through the statement of financial position as an adjustment to the investment contract liability.

The majority of the Group's contracts classified as non-participating investment contracts are unit-linked contracts and are measured at fair value. Certain liabilities for non-linked non-participating contracts are measured at amortised cost.

The liability's fair value is determined using a valuation technique to provide a reliable estimate of the amount for which the liability could be transferred in an orderly transaction between market participants at the measurement date, subject to a minimum equal

to the surrender value. For unit-linked contracts, the fair value liability is equal to the current unit fund value, including any unfunded units. In addition, if required, non-unit reserves are held based on a discounted cash flow analysis. For non-linked contracts, the fair value liability is based on a discounted cash flow analysis, with allowance for risk calibrated to match the market price for risk.

Amortised cost is calculated as the fair value of consideration received at the date of initial recognition, less the net effect of payments such as transaction costs and front-end fees, plus or minus the cumulative amortisation (using the effective interest rate method) of any difference between that initial amount and the maturity value, and less any write-down for surrender payments. The effective interest rate is the one that equates the discounted cash payments to the initial amount. At each reporting date, the amortised cost liability is determined as the value of future best estimate cash flows discounted at the effective interest rate.

(N) Reinsurance

The Group assumes and cedes reinsurance in the normal course of business, with retention limits varying by line of business. Premiums on reinsurance assumed are recognised as revenue in the same manner as they would be if the reinsurance were considered direct business, taking into account the product classification of the reinsured business. The cost of reinsurance related to long-duration contracts is accounted for over the life of the underlying reinsured policies, using assumptions consistent with those used to account for these policies.

Where general insurance liabilities are discounted, any corresponding reinsurance assets are also discounted using consistent assumptions.

Gains or losses on buying retroactive reinsurance are recognised in the income statement immediately at the date of purchase and are not amortised. Premiums ceded and claims reimbursed are presented on a gross basis in the consolidated income statement and statement of financial position as appropriate.

Reinsurance assets primarily include balances due from both insurance and reinsurance companies for ceded insurance and investment contract liabilities. This includes balances in respect of investment contracts which are legally reinsurance contracts but do not meet the definition of a reinsurance contract under IFRS. Amounts recoverable from reinsurers are estimated in a manner consistent with the underlying contract liabilities, outstanding claims provisions or settled claims associated with the reinsured policies and in accordance with the relevant reinsurance contract.

Reinsurance of non-participating investment contracts and reinsurance contracts that principally transfer financial risk are accounted for directly through the statement of financial position. A deposit asset or liability is recognised, based on the consideration paid or received less any explicitly identified premiums or fees to be retained by the reinsured. These deposit assets or liabilities are shown within reinsurance assets in the consolidated statement of financial position.

If a reinsurance asset is impaired, the Group reduces the carrying amount accordingly and recognises that impairment loss in the income statement. A reinsurance asset is impaired if there is objective evidence, as a result of an event that occurred after initial recognition of the reinsurance asset, that the Group may not receive all amounts due to it under the terms of the contract, and the event has a reliably measurable impact on the amounts that the Group will receive from the reinsurer.

(O) Goodwill, AVIF and intangible assets Goodwill

Goodwill represents the excess of the cost of an acquisition over the fair value of the Group's share of the net assets of the acquired

subsidiary, associate or joint venture at the date of acquisition. Goodwill arising on the Group's investments in subsidiaries is shown as a separate asset, while that on associates and joint ventures is included within the carrying value of those investments.

Goodwill on acquisitions prior to 1 January 2004 (the date of transition to IFRS) is carried at its book value (original cost less cumulative amortisation) on that date, less any impairment subsequently incurred. Goodwill arising before 1 January 1998 was eliminated against reserves and has not been reinstated.

Where negative goodwill arises on an acquisition, this is recognised immediately in the consolidated income statement.

Acquired value of in-force business (AVIF)

The present value of future profits on a portfolio of long-term insurance and investment contracts, acquired either directly or through the purchase of a subsidiary, is recognised as an asset.

If the AVIF results from the acquisition of an investment in a joint venture or an associate, it is held within the carrying amount of that investment. In all cases, the AVIF is amortised over the useful lifetime of the related contracts in the portfolio on a systematic basis. The rate of amortisation is chosen by considering the profile of the additional value of in-force business acquired and the expected depletion in its value.

Non-participating investment contract AVIF is reviewed for evidence of impairment, consistent with reviews conducted for other finite life intangible assets. Insurance and participating investment contract AVIF is reviewed for impairment at each reporting date as part of the liability adequacy requirements of IFRS 4 (see accounting policy L). AVIF is reviewed for evidence of impairment and impairment tested at product portfolio level by reference to a projection of future profits arising from the portfolio.

Intangible assets

Intangible assets consist primarily of contractual relationships such as access to distribution networks, customer lists and software. The economic lives of these are determined by considering relevant factors such as usage of the asset, typical product life cycles, potential obsolescence, maintenance costs, the stability of the industry, competitive position and the period of control over the assets. These intangibles are amortised over their useful lives, which range from three to 30 years, using the straight-line method.

The amortisation charge for the year is included in the income statement under 'Other expenses'. For intangibles with finite lives, impairment charges will be recognised in the income statement where evidence of such impairment is observed. Intangibles with indefinite lives are subject to regular impairment testing, as described below.

Impairment testing

For impairment testing, goodwill and intangible assets with indefinite useful lives have been allocated to cash-generating units. The carrying amount of goodwill and intangible assets with indefinite useful lives is reviewed at least annually or when circumstances or events indicate there may be uncertainty over this value. Goodwill and indefinite life intangibles are written down for impairment where the recoverable amount is insufficient to support its carrying value. Further details on goodwill allocation and impairment testing are given in note 17. Any impairments are charged as expenses in the income statement.

(P) Property and equipment

Owner-occupied properties are carried at their revalued amounts, and movements are recognised in other comprehensive income and taken to a separate reserve within equity. When such properties are sold, the accumulated revaluation surpluses are transferred from

this reserve to retained earnings. These properties are depreciated down to their estimated residual values over their useful lives. All other items classed as property and equipment within the statement of financial position are carried at historical cost less accumulated depreciation.

Investment properties under construction are included within property and equipment until completion, and are stated at cost less any provision for impairment in their values until construction is completed or fair value becomes reliably measurable.

Depreciation is calculated on the straight-line method to write down the cost of other assets to their residual values over their estimated useful lives as follows:

• Properties under construction	No depreciation
• Owner-occupied properties, and related mechanical and electrical equipment	25 years
• Motor vehicles	Three years, or lease term (up to useful life) if longer
• Computer equipment	Three to five years
• Other assets	Three to five years

The assets' residual values, useful lives and method of depreciation are reviewed regularly, and at least at each financial year end, and adjusted if appropriate. Where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down immediately to its recoverable amount. Gains and losses on disposal of property and equipment are determined by reference to their carrying amount.

Borrowing costs directly attributable to the acquisition and construction of property and equipment are capitalised. All repair and maintenance costs are charged to the income statement during the financial period in which they are incurred. The cost of major renovations is included in the carrying amount of the asset when it is probable that future economic benefits in excess of the most recently assessed standard of performance of the existing asset will flow to the Group and the renovation replaces an identifiable part of the asset. Major renovations are depreciated over the remaining useful life of the related asset.

(Q) Investment property

Investment property is held for long-term rental yields and is not occupied by the Group. Completed investment property is stated at its fair value, as assessed by qualified external valuers or by qualified staff of the Group. Changes in fair values are recorded in the income statement in net investment income.

As described in accounting policy P above, investment properties under construction are included within property and equipment, and are stated at cost less any impairment in their values until construction is completed or fair value becomes reliably measurable.

(R) Impairment of non-financial assets

Property and equipment and other non-financial assets are reviewed for impairment losses whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised in the income statement for the amount by which the carrying amount of the asset exceeds its recoverable amount, which is the higher of an asset's fair value less costs of disposal and value in use. For the purposes of assessing impairment, assets are grouped at the lowest level for which there are separately identifiable cash flows. Non-financial assets, except goodwill which have suffered an impairment, are reviewed for possible reversal of the impairment at each reporting date.

(S) Derecognition and offset of financial assets and financial liabilities

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is derecognised where:

- The rights to receive cash flows from the asset have expired;
- The Group retains the right to receive cash flows from the asset, but has assumed an obligation to pay them in full without material delay to a third party under a 'pass-through' arrangement; or
- The Group has transferred its rights to receive cash flows from the asset and has either transferred substantially all the risks and rewards of the asset, or has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires.

Financial assets and liabilities are offset and the net amount reported in the statement of financial position when there is a currently enforceable legal right to set off the recognised amounts and there is the ability and intention to settle on a net basis, or realise the asset and settle the liability simultaneously.

(T) Financial investments

The Group classifies its investments as either FVTPL or AFS. The classification depends on the purpose for which the investments were acquired, and is determined by local management at initial recognition. The FVTPL category has two subcategories – those that meet the definition as being held for trading and those the Group chooses to designate as FVTPL (referred to in this accounting policy as 'other than trading') upon initial recognition.

In general, the other than trading category is used as, in most cases, the Group's investment or risk management strategy is to manage its financial investments on a fair value basis. Debt securities and equity securities, which the Group acquires with the intention to resell in the short term, are classified as trading, as are non-hedge derivatives (see accounting policy U below). The AFS category is used where the relevant long-term business liability (including shareholders' funds) is passively managed, as well as in certain fund management and non-insurance operations.

Purchases and sales of investments are recognised on the trade date, which is the date that the Group commits to purchase or sell the assets, at their fair values. Debt securities are initially recorded at their fair value, which is taken to be amortised cost, with amortisation credited or charged to the income statement. Investments classified as trading, other than trading and AFS, are subsequently carried at fair value. Changes in the fair value of trading and other than trading investments are included in the income statement in the period in which they arise.

Changes in the fair value of securities classified as AFS are recognised in other comprehensive income and recorded in a separate investment valuation reserve within equity. When securities classified as AFS are sold or impaired, the accumulated fair value adjustments are transferred out of the investment valuation reserve to the income statement with a corresponding movement through other comprehensive income.

Impairment

The Group reviews the carrying value of its AFS investments on a regular basis. If the carrying value of an AFS investment is greater than the recoverable amount, the carrying value is reduced through a charge to the income statement in the period of impairment. The following policies are used to determine the level of any impairment, some of which involve considerable judgement.

AFS debt securities

An AFS debt security is impaired if there is objective evidence that a loss event has occurred which has impaired the expected cash flows, i.e. where all amounts due according to the contractual terms of the security are not considered collectible. An impairment charge, measured as the difference between the security's fair value and amortised cost, is recognised when the issuer is known to be either in default or in financial difficulty. Determining when an issuer is in financial difficulty requires the use of judgement, and we consider a number of factors including industry risk factors, financial condition, liquidity position and near-term prospects of the issuer, credit rating declines and a breach of contract. A decline in fair value below amortised cost due to changes in risk-free interest rates does not necessarily represent objective evidence of a loss event.

For securities identified as being impaired, the cumulative unrealised loss previously recognised within the investment valuation reserve is transferred to realised losses for the year, with a corresponding movement through other comprehensive income. Any subsequent increase in fair value of these impaired securities is recognised in other comprehensive income and recorded in the investment valuation reserve unless this increase represents a decrease in the impairment loss that can be objectively related to an event occurring after the impairment loss was recognised in the income statement. In such an event, the reversal of the impairment loss is recognised as a gain in the income statement.

AFS equity securities

An AFS equity security is considered impaired if there is objective evidence that the cost may not be recovered. In addition to qualitative impairment criteria, such evidence includes a significant or prolonged decline in fair value below cost. Unless there is evidence to the contrary, an equity security is considered impaired if the decline in fair value relative to cost has been either at least 20% for a continuous six-month period or more than 40% at the end of the reporting period, or been in an unrealised loss position for a continuous period of more than 12 months at the end of the reporting period. We also review our largest equity holdings for evidence of impairment, as well as individual equity holdings in industry sectors known to be in difficulty. Where there is objective evidence that impairment exists, the security is written down regardless of the size of the unrealised loss.

For securities identified as being impaired, the cumulative unrealised loss previously recognised within the investment valuation reserve is transferred to realised losses for the year with a corresponding movement through other comprehensive income. Any subsequent increase in fair value of these impaired securities is recognised in other comprehensive income and recorded in the investment valuation reserve.

Reversals of impairments on any of these assets are only recognised where the decrease in the impairment can be objectively related to an event occurring after the write-down (such as an improvement in the debtor's credit rating), and are not recognised in respect of equity instruments.

(U) Derivative financial instruments and hedging

Derivative financial instruments include foreign exchange contracts, interest rate futures, currency and interest rate swaps, currency and interest rate options (both written and purchased) and other financial instruments that derive their value mainly from underlying interest rates, foreign exchange rates, credit or equity indices, commodity values or equity instruments.

All derivatives are initially recognised in the statement of financial position at their fair value, which usually represents their cost. They are subsequently remeasured at their fair value, with the method of recognising movements in this value depending on whether they are designated as hedging instruments and, if so, the nature of the item

being hedged. Fair values are obtained from quoted market prices or, if these are not available, by using valuation techniques such as discounted cash flow models or option pricing models. All derivatives are carried as assets when the fair values are positive and as liabilities when the fair values are negative. Premiums paid for derivatives are recorded as an asset on the statement of financial position at the date of purchase, representing their fair value at that date.

Derivative contracts may be traded on an exchange or over-the-counter (OTC). Exchange-traded derivatives are standardised and include certain futures and option contracts. OTC derivative contracts are individually negotiated between contracting parties and include forwards, swaps, caps and floors. Derivatives are subject to various risks including market, liquidity and credit risk, similar to those related to the underlying financial instruments. Many OTC transactions are contracted and documented under International Swaps and Derivatives Association master agreements or their equivalent, which are designed to provide legally enforceable set-off in the event of default, reducing the Group's exposure to credit risk.

The notional or contractual amounts associated with derivative financial instruments are not recorded as assets or liabilities on the statement of financial position as they do not represent the fair value of these transactions. These amounts are disclosed in note 60(b).

The Group has collateral agreements in place between the individual Group entities and relevant counterparties. Accounting policy W covers collateral, both received and pledged, in respect of these derivatives.

Interest rate and currency swaps

Interest rate swaps are contractual agreements between two parties to exchange fixed rate and floating rate interest by means of periodic payments, calculated on a specified notional amount and defined interest rates. Most interest rate swap payments are netted against each other, with the difference between the fixed and floating rate interest payments paid by one party. Currency swaps, in their simplest form, are contractual agreements that involve the exchange of both periodic and final amounts in two different currencies. Both types of swap contracts may include the net exchange of principal. Exposure to gain or loss on these contracts will increase or decrease over their respective lives as a function of maturity dates, interest and foreign exchange rates, and the timing of payments.

Interest rate futures, forwards and options contracts

Interest rate futures are exchange-traded instruments and represent commitments to purchase or sell a designated security or money market instrument at a specified future date and price. Interest rate forward agreements are OTC contracts in which two parties agree on an interest rate and other terms that will become a reference point in determining, in concert with an agreed notional principal amount, a net payment to be made by one party to the other, depending upon what rate prevails at a future point in time. Interest rate options, which consist primarily of caps and floors, are interest rate protection instruments that involve the potential obligation of the seller to pay the buyer an interest rate differential in exchange for a premium paid by the buyer. This differential represents the difference between current rate and an agreed rate applied to a notional amount. Exposure to gain or loss on all interest rate contracts will increase or decrease over their respective lives as interest rates fluctuate. Certain contracts, known as swaptions, contain features which can act as swaps or options.

Foreign exchange contracts

Foreign exchange contracts, which include spot, forward and futures contracts, represent agreements to exchange the currency of one country for the currency of another country at an agreed price and settlement date. Foreign exchange option contracts are similar to

interest rate option contracts, except that they are based on currencies, rather than interest rates.

Derivative instruments for hedging

On the date a derivative contract is entered into, the Group designates certain derivatives as either:

- (i) a hedge of the fair value of a recognised asset or liability (fair value hedge);
- (ii) a hedge of a future cash flow attributable to a recognised asset or liability, a highly probable forecast transaction or a firm commitment (cash flow hedge); or
- (iii) a hedge of a net investment in a foreign operation (net investment hedge).

Hedge accounting is used for derivatives designated in this way, provided certain criteria are met. At the inception of the transaction, the Group documents the relationship between the hedging instrument and the hedged item, as well as the risk management objective and the strategy for undertaking the hedge transaction. The Group also documents its assessment of whether the hedge is expected to be, and has been, highly effective in offsetting the risk in the hedged item, both at inception and on an ongoing basis.

Changes in the fair value of derivatives that are designated and qualify as net investment or cash flow hedges, and that prove to be highly effective in relation to the hedged risk, are recognised in other comprehensive income and a separate reserve within equity. Gains and losses accumulated in this reserve are included in the income statement on disposal of the relevant investment or occurrence of the cash flow as appropriate.

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognised in the income statement. The gain or loss on the hedged item that is attributable to the hedged risk is recognised in the income statement. This applies even if the hedged item is an available for sale financial asset or is measured at amortised cost. If a hedging relationship no longer meets the criteria for hedge accounting, the cumulative adjustment made to the carrying amount of the hedged item is amortised to the income statement, based on a recalculated effective interest rate over the residual period to maturity. In cases where the hedged item has been derecognised, the cumulative adjustment is released to the income statement immediately.

For a variety of reasons, certain derivative transactions, while providing effective economic hedges under the Group's risk management positions, do not qualify for hedge accounting under the specific IFRS rules and are therefore treated as derivatives held for trading. Their fair value gains and losses are recognised immediately in net investment income.

(V) Loans

Loans with fixed maturities, including policyholder loans, mortgage loans on investment property, securitised mortgages and collateral loans, are recognised when cash is advanced to borrowers. Certain loans are carried at their unpaid principal balances and adjusted for amortisation of premium or discount, non-refundable loan fees and related direct costs. These amounts are deferred and amortised over the life of the loan as an adjustment to loan yield using the effective interest rate method.

However, for the majority of mortgage loans, the Group has taken advantage of the fair value option under IAS 39 to present the mortgages, associated borrowings and derivative financial instruments at fair value, since they are managed as a portfolio on a fair value basis. This presentation provides more relevant information and eliminates any accounting mismatch that would otherwise arise from using different measurement bases for these three items. The fair values of these mortgages are estimated using

discounted cash flow models, based on a risk-adjusted discount rate which reflects the risks associated with these products. They are revalued at each period end, with movements in their fair values being taken to the income statement.

At each reporting date, we review loans carried at amortised cost for objective evidence that they are impaired and uncollectable, either at the level of an individual security or collectively within a group of loans with similar credit risk characteristics. To the extent that a loan is uncollectable, it is written down as impaired to its recoverable amount, measured as the present value of expected future cash flows discounted at the original effective interest rate of the loan, taking into account the fair value of the underlying collateral through an impairment provision account. Subsequent recoveries in excess of the loan's written-down carrying value are credited to the income statement.

The Company classifies and measures loans at either amortised cost, fair value through other comprehensive income, or fair value through profit or loss based on the outcome of an assessment of the Company's business model for managing financial assets and the extent to which the financial assets' contractual cash flows are solely payment of principal and interest.

The Company calculates expected credit losses for all financial assets held at either amortised cost or fair value through other comprehensive income. Expected credit losses are calculated on either a 12-month or lifetime basis depending on the extent to which credit risk has increased significantly since initial recognition.

(W) Collateral

The Group receives and pledges collateral in the form of cash or non-cash assets in respect of stock lending transactions, certain derivative contracts and loans, in order to reduce the credit risk of these transactions. Collateral is also pledged as security for bank letters of credit. The amount and type of collateral required depends on an assessment of the credit risk of the counterparty.

Collateral received in the form of cash, which is not legally segregated from the Group, is recognised as an asset in the statement of financial position with a corresponding liability for the repayment in financial liabilities (note 61). However, where the Group has a currently enforceable legal right of set-off and the ability and intent to net settle, the collateral liability and associated derivative balances are shown net. Non-cash collateral received is not recognised in the statement of financial position unless the transfer of the collateral meets the derecognition criteria from the perspective of the transferor. Such collateral is typically recognised when the Group either (a) sells or repledges these assets in the absence of default, at which point the obligation to return this collateral is recognised as a liability; or (b) the counterparty to the arrangement defaults, at which point the collateral is seized and recognised as an asset.

Collateral pledged in the form of cash, which is legally segregated from the Group, is derecognised from the statement of financial position with a corresponding receivable recognised for its return. Non-cash collateral pledged is not derecognised from the statement of financial position unless the Group defaults on its obligations under the relevant agreement, and therefore continues to be recognised in the statement of financial position within the appropriate asset classification.

(X) Deferred acquisition costs and other assets

Costs relating to the acquisition of new business for insurance and participating investment contracts are deferred in line with existing local accounting practices, to the extent that they are expected to be recovered out of future margins in revenues on these contracts. For participating contracts written in the UK, acquisition costs are generally not deferred as the liability for these contracts is calculated on a realistic basis which was grandfathered from UK regulatory requirements prior to the adoption of Solvency II (see

accounting policy L). For non-participating investment and investment fund management contracts, incremental acquisition costs and sales enhancements that are directly attributable to securing an investment management service are also deferred.

Long-term business deferred acquisition costs are amortised systematically over a period no longer than that in which they are expected to be recoverable out of these future margins. Deferred acquisition costs for non-participating investment and investment fund management contracts are amortised over the period in which the service is provided. General insurance and health deferred acquisition costs are amortised over the period in which the related revenues are earned. The reinsurers' share of deferred acquisition costs is amortised in the same manner as the underlying asset.

Deferred acquisition costs are reviewed by category of business at the end of each reporting period and are written-off where they are no longer considered to be recoverable.

Where such business is reinsured, an appropriate proportion of the deferred acquisition costs is attributed to the reinsurer. Recoverability is assessed net of reinsurance, and may result in deferred acquisition costs being written-off if any liability recognised for the reinsurer's share is insufficient.

Other receivables and payables are initially recognised at cost, being fair value. Subsequent to initial measurement they are measured at amortised cost.

(Y) Statement of cash flows

Cash and cash equivalents

Cash and cash equivalents consist of cash at bank and in hand, deposits held at call with banks, treasury bills and other short-term highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of change in value. Such investments are those with less than three months' maturity from the date of acquisition, or which are redeemable on demand with only an insignificant change in their fair values.

For the purposes of the statement of cash flows, cash and cash equivalents also include bank overdrafts, which are included in payables and other financial liabilities on the statement of financial position.

Operating cash flows

Purchases and sales of investment property, loans and financial investments are included within operating cash flows as the purchases are funded from cash flows associated with the origination of insurance and investment contracts, net of payments of related benefits and claims.

(Z) Leases

Leases, where a significant portion of the risks and rewards of ownership is retained by the lessor, are classified as operating leases. Where the Group is the lessee, payments made under operating leases (net of any incentives received from the lessor) are charged to the income statement on a straight-line basis over the term of the relevant leases.

Where the Group is the lessor, lease income from operating leases is recognised in the income statement on a straight-line basis over the lease term.

When assets are subject to finance leases, the present value of the lease payments, together with any unguaranteed residual value, is recognised as a receivable. The Group has not entered into any material finance lease arrangements either as lessor or lessee.

(AA) Provisions and contingent liabilities

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, it is more probable than not that an outflow of resources embodying economic benefits

will be required to settle the obligation, and a reliable estimate of the amount of the obligation can be made. Restructuring provisions include lease termination penalties and employee termination payments. They comprise only the direct expenditures arising from the restructuring, which are those that are necessarily entailed by the restructuring; and not associated with the ongoing activities of the entity. The amount recorded as a provision is the best estimate of the expenditure required to settle the present obligation at the balance sheet date. Where the effect of the time value of money is material, the provision is the present value of the expected expenditure. Provisions are not recognised for future operating losses.

Where the Group expects a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain.

The Group recognises a provision for onerous contracts when the expected benefits to be derived from a contract are less than the unavoidable costs of meeting the obligations under the contract. Contingent liabilities are disclosed if there is a possible future obligation as a result of a past event, or if there is a present obligation as a result of a past event but either a payment is not probable or the amount cannot be reasonably estimated.

(AB) Employee benefits

Pension obligations

The Group operates a number of pension schemes, whose members receive benefits on either a defined benefit or defined contribution basis. Under a defined contribution plan, the Group's legal or constructive obligation is limited to the amount it agrees to contribute to a fund and there is no obligation to pay further contributions if the fund does not hold sufficient assets to pay benefits. A defined benefit pension plan is a pension plan that is not a defined contribution plan and typically defines the amount of pension benefit that an employee will receive on retirement.

The defined benefit obligation is calculated by independent actuaries using the projected unit credit method. The pension obligation is measured as the present value of the estimated future cash outflows, using a discount rate based on market yields for high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and that have terms to maturity approximating to the terms of the related pension liability. The resultant net surplus or deficit recognised as an asset or liability on the statement of financial position is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets.

Plan assets exclude unpaid contributions due from Group entities to the schemes, and any non-transferrable financial instruments issued by a Group entity and held by the schemes. If the fair value of plan assets exceeds the present value of the defined benefit obligation, the resultant asset is limited to the asset ceiling defined as present value of economic benefits available in the form of future refunds from the plan or reductions in contributions to the plan. In order to calculate the present value of economic benefits, consideration is given to any minimum funding requirements that apply to any plan in the Group.

Remeasurements of defined benefit plans comprise actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions, the return on plan assets (excluding net interest) and the effect of the asset ceiling (if any). The Group recognises remeasurements immediately in other comprehensive income and does not reclassify them to the income statement in subsequent periods.

Service costs comprising current service costs, past service costs, gains and losses on curtailments and net interest expense/income are charged or credited to the income statement.

Past service costs are recognised at the earlier of the date the plan amendment or curtailment occurs or when related restructuring costs are recognised.

The Group determines the net interest expense/income on the net defined benefit liability/asset for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the year to the net defined benefit liability/asset. Net interest expense is charged to finance costs, whereas, net interest income is credited to investment income.

For defined contribution plans, the Group pays contributions to publicly or privately administered pension plans. Once the contributions have been paid, the Group, as employer, has no further payment obligations. The Group's contributions are charged to the income statement in the year to which they relate and are included in staff costs.

Equity compensation plans

The Group offers share award and option plans over the Company's ordinary shares for certain employees, including a Save As You Earn plan (SAYE plan), details of which are given in the Directors' Remuneration Report and in note 33.

The Group accounts for options and awards under equity compensation plans, which were granted after 7 November 2002, until such time as they are fully vested, using the fair value based method of accounting (the 'fair value method'). Under this method, the cost of providing equity compensation plans is based on the fair value of the share awards or option plans at date of grant, which is recognised in the income statement over the expected vesting period of the related employees and credited to the equity compensation reserve, part of shareholders' funds. In certain jurisdictions, awards must be settled in cash instead of shares, and the credit is taken to liabilities rather than reserves. The fair value of these cash-settled awards is recalculated each year, with the income statement charge and liability being adjusted accordingly.

Shares purchased by employee share trusts to fund these awards are shown as deduction from shareholders' equity at their weighted average cost.

When the options are exercised and new shares are issued, the proceeds received, net of any transaction costs, are credited to share capital (par value) and the balance to share premium. Where the shares are already held by employee trusts, the net proceeds are credited against the cost of these shares, with the difference between cost and proceeds being taken to retained earnings. In both cases, the relevant amount in the equity compensation reserve is then credited to retained earnings.

(AC) Income taxes

The current tax expense is based on the taxable profits for the year, after any adjustments in respect of prior years. Tax, including tax relief for losses if applicable, is allocated over profits before taxation and amounts charged or credited to components of other comprehensive income and equity, as appropriate.

Provision is made for deferred tax liabilities, or credit taken for deferred tax assets, using the liability method, on all material temporary differences between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements.

The rates enacted or substantively enacted at the statement of financial position date are used to value the deferred tax assets and liabilities.

Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised. Where there is a history of tax losses, deferred tax assets are only recognised in excess of deferred tax liabilities if there is convincing evidence that future profits will be available.

Deferred tax is provided on any temporary differences arising from investments in subsidiaries, associates and joint ventures, except where the timing of the reversal of the temporary difference can be

controlled and it is probable that the difference will not reverse in the foreseeable future.

Deferred taxes are not provided in respect of temporary differences arising from the initial recognition of goodwill, or from the initial recognition of an asset or liability in a transaction which is not a business combination and affects neither accounting profit nor taxable profit or loss at the time of the transaction.

Current and deferred tax relating to items recognised in other comprehensive income and directly in equity are similarly recognised in other comprehensive income and directly in equity respectively. Deferred tax related to fair value re-measurement of available for sale investments, pensions and other post-retirement obligations and other amounts charged or credited directly to other comprehensive income is recognised in the statement of financial position as a deferred tax asset or liability. Current tax on interest paid on the direct capital instrument and tier 1 notes is credited directly in equity.

Current and deferred tax includes amounts provided in respect of uncertain tax positions, where management expects it is more likely than not that an economic outflow will occur as a result of examination by a relevant tax authority. Provisions reflect management's best estimate of the ultimate liability based on their interpretation of tax law, precedent and guidance, informed by external tax advice as necessary. The final amounts of tax due may ultimately differ from management's best estimate at the balance sheet date. Changes in facts and circumstances underlying these provisions are reassessed at each balance sheet date, and the provisions are re-measured as required to reflect current information.

In addition to paying tax on shareholders' profits ('shareholder tax'), the Group's life businesses in the UK, Ireland and Singapore pay tax on policyholders' investment returns ('policyholder tax') on certain products at policyholder tax rates. The incremental tax borne by the Group represents income tax on policyholder's investment return. In jurisdictions where policyholder tax is applicable, the total tax charge in the income statement is allocated between shareholder tax and policyholder tax. The shareholder tax is calculated by applying the corporate tax rate to the shareholder profit. The difference between the total tax charge and shareholder tax is allocated to policyholder tax. This calculation methodology is consistent with the legislation relating to the calculation of tax on shareholder profits. The Group has decided to show separately the amounts of policyholder tax to provide a meaningful measure of the tax the Group pays on its profit. In the pro forma reconciliations, the Group adjusted operating profit has been calculated after charging policyholder tax.

(AD) Borrowings

Borrowings are classified as being for either core structural or operational purposes. They are recognised initially at their issue proceeds less transaction costs incurred. Subsequently, most borrowings are stated at amortised cost, and any difference between net proceeds and the redemption value is recognised in the income statement over the period of the borrowings using the effective interest rate method. All borrowing costs are expensed as they are incurred except where they are directly attributable to the acquisition or construction of property and equipment as described in accounting policy P.

Where loan notes have been issued in connection with certain securitised mortgage loans, the Group has taken advantage of the fair value option under IAS 39 to present the mortgages, associated liabilities and derivative financial instruments at fair value, since they are managed as a portfolio on a fair value basis. This presentation provides more relevant information and eliminates any accounting mismatch which would otherwise arise from using different measurement bases for these three items.

(AE) Share capital and treasury shares

Equity instruments

An equity instrument is a contract that evidences a residual interest in the assets of an entity after deducting all its liabilities.

Accordingly, a financial instrument is treated as equity if:

- (i) there is no contractual obligation to deliver cash or other financial assets or to exchange financial assets or liabilities on terms that may be unfavourable; and
- (ii) the instrument is a non-derivative that contains no contractual obligation to deliver a variable number of shares or is a derivative that will be settled only by the Group exchanging a fixed amount of cash or other assets for a fixed number of the Group's own equity instruments.

Share issue costs

Incremental external costs directly attributable to the issue of new shares are shown in equity as a deduction, net of tax, from the proceeds of the issue and disclosed where material.

Dividends

Interim dividends on ordinary shares are recognised in equity in the period in which they are paid. Final dividends on these shares are recognised when they have been approved by shareholders.

Dividends on preference shares are recognised in the period in which they are declared and appropriately approved.

Treasury shares

Where the Company or its subsidiaries purchase the Company's share capital or obtain rights to purchase its share capital, the consideration paid (including any attributable transaction costs net of income taxes) is shown as a deduction from total shareholders' equity. Gains and losses on own shares are charged or credited to the treasury share account in equity.

(AF) Fiduciary activities

Assets and income arising from fiduciary activities, together with related undertakings to return such assets to customers, are excluded from these financial statements where the Group has no contractual rights in the assets and acts in a fiduciary capacity such as nominee, trustee or agent.

(AG) Earnings per share

Basic earnings per share is calculated by dividing net income available to ordinary shareholders by the weighted average number of ordinary shares in issue during the year, excluding the weighted average number of treasury shares.

Earnings per share has also been calculated on Group adjusted operating profit attributable to ordinary shareholders, net of tax, non-controlling interests, preference dividends, the direct capital instrument (the DCI) and tier one notes as the directors believe this figure provides a better indication of operating performance. Details are given in note 15.

For the diluted earnings per share, the weighted average number of ordinary shares in issue is adjusted to assume conversion of all dilutive potential ordinary shares, such as convertible debt and share options granted to employees.

Potential or contingent share issuances are treated as dilutive when their conversion to shares would decrease net earnings per share.

(AH) Operations held for sale

Assets and liabilities held for disposal as part of operations which are held for sale are shown separately in the consolidated statement of financial position. Operations held for sale are recorded at the lower of their carrying amount and their fair value less the estimated selling costs.

[Consolidated financial statements](#)**Consolidated income statement**

For the year ended 31 December 2018

	Note	2018 £m	2017 £m
Income			
Gross written premiums	6	28,659	27,606
Premiums ceded to reinsurers		(2,326)	(2,229)
Premiums written net of reinsurance		26,333	25,377
Net change in provision for unearned premiums		(81)	(153)
Net earned premiums	H	26,252	25,224
Fee and commission income	I & J	2,180	2,187
Net investment (expense)/income	K	(10,847)	22,066
Share of profit after tax of joint ventures and associates		112	41
Profit on the disposal and remeasurement of subsidiaries, joint ventures and associates	4(a)	102	135
		17,799	49,653
Expenses	7		
Claims and benefits paid, net of recoveries from reinsurers		(23,142)	(24,113)
Change in insurance liabilities, net of reinsurance	41(b)	6,246	(1,074)
Change in investment contract provisions		5,321	(13,837)
Change in unallocated divisible surplus	48	3,237	294
Fee and commission expense		(3,393)	(4,329)
Other expenses		(3,843)	(3,537)
Finance costs	8	(573)	(683)
		(16,147)	(47,279)
Profit before tax		1,652	2,374
Tax attributable to policyholders' returns	14(d)	477	(371)
Profit before tax attributable to shareholders' profits		2,129	2,003
Tax credit/(expense)	AC & 14	35	(728)
Less: tax attributable to policyholders' returns	14(d)	(477)	371
Tax attributable to shareholders' profits	14(d)	(442)	(357)
Profit for the year		1,687	1,646
Attributable to:			
Equity holders of Aviva plc		1,568	1,497
Non-controlling interests	40	119	149
Profit for the year		1,687	1,646
Earnings per share	AG & 15		
Basic (pence per share)		38.2p	35.0p
Diluted (pence per share)		37.8p	34.6p

The accounting policies (identified alphabetically) on pages 102 to 115 and notes (identified numerically) on pages 123 to 241 are an integral part of the financial statements.

Consolidated statement of comprehensive income

For the year ended 31 December 2018

	Note	2018 £m	2017 £m
Profit for the year		1,687	1,646
Other comprehensive income:			
<i>Items that may be reclassified subsequently to income statement</i>			
Investments classified as available for sale			
Fair value gains/(losses)	38	57	(7)
Fair value gains transferred to profit on disposals	38	(78)	(2)
Share of other comprehensive (loss)/income of joint ventures and associates	38	(10)	6
Foreign exchange rate movements	38, 40	5	68
Aggregate tax effect – shareholder tax on items that may be reclassified subsequently to income statement	14(b)	8	5
<i>Items that will not be reclassified to income statement</i>			
Owner-occupied properties – fair value gains/(losses)	38	1	(1)
Remeasurements of pension schemes	39	(279)	(5)
Aggregate tax effect – shareholder tax on items that will not be reclassified subsequently to income statement	14(b)	43	5
Total other comprehensive income, net of tax		(253)	69
Total comprehensive income for the year		1,434	1,715
Attributable to:			
Equity holders of Aviva plc		1,310	1,523
Non-controlling interests		124	192
		1,434	1,715

The accounting policies (identified alphabetically) on pages 102 to 115 and notes (identified numerically) on pages 123 to 241 are an integral part of the financial statements.

Reconciliation of Group adjusted operating profit to profit for the year

For the year ended 31 December 2018

	Note	2018 £m	2017 £m
Group adjusted operating profit before tax attributable to shareholders' profits			
Life business ¹		2,999	2,852
General insurance and health ¹		704	704
Fund management		146	164
Other:			
Other operations ¹		(237)	(143)
Corporate centre		(216)	(184)
Group debt costs and other interest		(280)	(325)
Group adjusted operating profit before tax attributable to shareholders' profits		3,116	3,068
Integration and restructuring costs	7	—	(141)
Group adjusted operating profit before tax attributable to shareholders' profits after integration and restructuring costs		3,116	2,927
Adjusted for the following:			
Life business: Investment variances and economic assumption changes	9	(197)	34
Non-life business: Short-term fluctuation in return on investments	10(a)	(476)	(345)
General insurance and health business: Economic assumption changes	10(a)	1	(7)
Impairment of goodwill, joint ventures, associates and other amounts expensed	17(a)	(13)	(49)
Amortisation and impairment of intangibles	18	(209)	(197)
Amortisation and impairment of acquired value of in-force business	18	(426)	(495)
Profit on the disposal and remeasurement of subsidiaries, joint ventures and associates	4(a)	102	135
Other ²		231	—
Adjusting items before tax		(987)	(924)
Profit before tax attributable to shareholders' profits		2,129	2,003
Tax on operating profit	15(a)(i)	(647)	(639)
Tax on other activities	15(a)(i)	205	282
		(442)	(357)
Profit for the year		1,687	1,646

- 1 Non-insurance businesses in the UK previously included within 'Other operations', such as the savings business, have been reclassified to life business and general insurance and health segments as this presentation is consistent with how the business is managed. See note 1 for further details. The impact of this change was to reduce life business operating profit by £80 million (2017: £30 million) and increase general insurance and health operating profit by £4 million (2017: £4 million).
- 2 Other includes a movement in the discount rate used for estimating lump sum payments in the settlement of bodily injury claims which resulted in a gain of £190 million (see note 43(b)), a provision release of £78 million relating to the sale of Aviva USA in 2013, a gain of £36 million relating to negative goodwill on the acquisition of Friends First (see note 3), a charge of £63 million relating to the UK defined benefit pension scheme as a result of the requirement to equalise members' benefits for the effects of Guaranteed Minimum Pension (see note 51(b)) and a charge of £10 million relating to goodwill payments to preference shareholders, which was announced on 30 April 2018, and associated administration costs (see note 35).

The accounting policies (identified alphabetically) on pages 102 to 115 and notes (identified numerically) on pages 123 to 241 are an integral part of the financial statements.

Reconciliation of Group adjusted operating profit to profit for the year continued

Group adjusted operating profit can be further analysed into the following segments (details of segments can be found in note 5):

	Long-term business £m	General insurance and health £m	Fund management £m	Other operations £m	Total £m
Year ended 31 December 2018					
United Kingdom ¹	1,871	453	—	—	2,324
Canada	—	46	—	1	47
France	436	110	—	(35)	511
Poland	170	20	—	9	199
Italy, Ireland, Spain and Other	225	90	—	(14)	301
Asia	300	(16)	(4)	(18)	262
Aviva Investors	1	—	150	—	151
Other Group activities	(4)	1	—	(180)	(183)
	2,999	704	146	(237)	3,612
Corporate Centre					(216)
Group debt costs and other interest					(280)
Total					3,116
Year ended 31 December 2017					
United Kingdom ¹	1,728	447	—	—	2,175
Canada	—	46	—	—	46
France	425	104	—	(29)	500
Poland	156	21	—	6	183
Italy, Ireland, Spain and Other	292	98	—	(14)	376
Asia	235	(8)	(4)	(32)	191
Aviva Investors	1	—	168	32	201
Other Group activities	15	(4)	—	(106)	(95)
	2,852	704	164	(143)	3,577
Corporate Centre					(184)
Group debt costs and other interest					(325)
Total					3,068

¹ Non-insurance businesses in the UK previously included within 'Other operations', such as the savings business, have been reclassified to long-term business and general insurance and health segments as this presentation is consistent with how the business is managed. See note 1 for further details. The impact of this change was to reduce long-term business operating profit by £80 million (2017: £30 million) and increase general insurance and health operating profit by £4 million (2017: £4 million).

The accounting policies (identified alphabetically) on pages 102 to 115 and notes (identified numerically) on pages 123 to 241 are an integral part of the financial statements.

Consolidated statement of changes in equity

For the year ended 31 December 2018

	Ordinary share capital note 32 £m	Preference share capital note 35 £m	Capital reserves ¹ note 32b, 37 £m	Treasury shares note 34 £m	Currency translation reserve note 38 £m	Other reserves note 38 £m	Retained earnings note 39 £m	DCI and tier 1 notes note 36 £m	Total equity excluding non-controlling interests £m	Non-controlling interests note 40 £m	Total equity £m
Balance at 1 January	1,003	200	10,195	(14)	1,141	(274)	4,918	731	17,900	1,235	19,135
Profit for the year	—	—	—	—	—	—	1,568	—	1,568	119	1,687
Other comprehensive income	—	—	—	—	28	(50)	(236)	—	(258)	5	(253)
Total comprehensive income for the year	—	—	—	—	28	(50)	1,332	—	1,310	124	1,434
Dividends and appropriations	—	—	—	—	—	—	(1,189)	—	(1,189)	—	(1,189)
Non-controlling interests share of dividends declared in the year	—	—	—	—	—	—	—	—	—	(90)	(90)
Shares purchased in buy-back ²	(30)	—	30	—	—	—	(600)	—	(600)	—	(600)
Transfer to profit on disposal of subsidiaries, joint ventures and associates	—	—	—	—	(40)	36	—	—	(4)	—	(4)
Changes in non-controlling interests in subsidiaries	—	—	—	—	(7)	—	1	—	(6)	(306)	(312)
Reserves credit for equity compensation plans	—	—	—	—	—	64	—	—	64	—	64
Shares issued under equity compensation plans	2	—	7	(1)	—	(55)	49	—	2	—	2
Capital contributions from non-controlling interests	—	—	—	—	—	—	—	—	—	3	3
Forfeited dividend income	—	—	—	—	—	—	4	—	4	—	4
Reclassification of tier 1 notes to financial liabilities	—	—	—	—	—	—	—	—	—	—	—
Treasury shares held by subsidiary companies	—	—	—	—	—	—	—	—	—	—	—
Owner-occupied properties fair value gains transferred to retained earnings on disposals	—	—	—	—	—	—	—	—	—	—	—
Aggregate tax effect – shareholder tax	—	—	—	—	—	—	8	—	8	—	8
Balance at 31 December	975	200	10,232	(15)	1,122	(279)	4,523	731	17,489	966	18,455

1 Capital reserves consist of share premium of £1,214 million, a capital redemption reserve of £44 million and a merger reserve of £8,974 million.

2 On 1 May 2018, the Group announced a share buy-back of ordinary shares for an aggregate purchase price of up to £600 million. On completion in 2018 of this buy-back, £600 million of shares had been purchased and shares with a nominal value of £30 million have been cancelled, giving rise to an additional capital redemption reserve of an equivalent amount. See note 32 for further details of the shares purchased in buy-back.

For the year ended 31 December 2017

	Ordinary share capital note 32 £m	Preference share capital note 35 £m	Capital reserves ¹ note 32b, 37 £m	Treasury shares note 34 £m	Currency translation reserve note 38 £m	Other reserves note 38 £m	Retained earnings note 39 £m	DCI and tier 1 notes note 36 £m	Total equity excluding non-controlling interests £m	Non-controlling interests note 40 £m	Total equity £m
Balance at 1 January	1,015	200	10,171	(15)	1,146	(349)	4,835	1,123	18,126	1,425	19,551
Profit for the year	—	—	—	—	—	—	1,497	—	1,497	149	1,646
Other comprehensive income	—	—	—	—	121	(93)	(2)	—	26	43	69
Total comprehensive income for the year	—	—	—	—	121	(93)	1,495	—	1,523	192	1,715
Dividends and appropriations	—	—	—	—	—	—	(1,081)	—	(1,081)	—	(1,081)
Non-controlling interests share of dividends declared in the year	—	—	—	—	—	—	—	—	—	(103)	(103)
Shares purchased in buy-back ²	(14)	—	14	—	—	—	(300)	—	(300)	—	(300)
Transfer to profit on disposal of subsidiaries, joint ventures and associates	—	—	—	—	(126)	137	1	—	12	—	12
Changes in non-controlling interests in subsidiaries	—	—	—	—	—	—	—	—	—	(315)	(315)
Reserves credit for equity compensation plans	—	—	—	—	—	77	—	—	77	—	77
Shares issued under equity compensation plans	2	—	10	—	—	(44)	42	—	10	—	10
Capital contributions from non-controlling interests	—	—	—	—	—	—	—	—	—	36	36
Reclassification of tier 1 notes to financial liabilities ³	—	—	—	—	—	—	(92)	(392)	(484)	—	(484)
Treasury shares held by subsidiary companies	—	—	—	1	—	—	—	—	1	—	1
Owner-occupied properties fair value gains transferred to retained earnings on disposals	—	—	—	—	—	(2)	2	—	—	—	—
Aggregate tax effect – shareholder tax	—	—	—	—	—	—	16	—	16	—	16
Balance at 31 December	1,003	200	10,195	(14)	1,141	(274)	4,918	731	17,900	1,235	19,135

1 Capital reserves consist of share premium of £1,207 million, a capital redemption reserve of £14 million and a merger reserve of £8,974 million.

2 On 25 May 2017, the Group announced a share buy-back of ordinary shares for an aggregate purchase price of up to £300 million. On completion in 2017 of this buy-back, £300 million of shares had been purchased and shares with a nominal value of £14 million have been cancelled, giving rise to a capital redemption reserve of an equivalent amount. See note 32 for further details of the shares purchased in buy-back.

3 On 28 September 2017, notification was given that the Group would redeem the \$650 million fixed rate tier 1 notes. At that date, the instrument was reclassified as a financial liability of £484 million, representing its fair value on translation into sterling on that date. The resulting foreign exchange loss of £92 million has been charged to retained earnings.

The accounting policies (identified alphabetically) on pages 102 to 115 and notes (identified numerically) on pages 123 to 241 are an integral part of the financial statements.

Consolidated statement of financial position

As at 31 December 2018

	Note	2018 £m	2017 £m
Assets			
Goodwill	O & 17	1,872	1,876
Acquired value of in-force business and intangible assets	O & 18	3,201	3,455
Interests in, and loans to, joint ventures	D & 19	1,214	1,221
Interests in, and loans to, associates	D & 20	304	421
Property and equipment	P & 21	548	509
Investment property	Q & 22	11,482	10,797
Loans	V & 24	28,785	27,857
Financial investments	S, T, U & 27	297,585	311,082
Reinsurance assets	N & 46	11,755	13,492
Deferred tax assets	AC & 49	185	144
Current tax assets		76	94
Receivables	28	8,879	8,285
Deferred acquisition costs	X & 29	2,965	2,906
Pension surpluses and other assets	X & 30	3,341	3,468
Prepayments and accrued income	X & 30(b)	2,947	2,860
Cash and cash equivalents	Y & 58(d)	46,484	43,347
Assets of operations classified as held for sale	AH & 4(c)	8,855	10,871
Total assets		430,478	442,685
Equity			
Capital	AE		
Ordinary share capital	32	975	1,003
Preference share capital	35	200	200
		1,175	1,203
Capital reserves			
Share premium	32(b)	1,214	1,207
Capital redemption reserve	32(b)	44	14
Merger reserve	D & 37	8,974	8,974
		10,232	10,195
Treasury shares	34	(15)	(14)
Currency translation reserve	38	1,122	1,141
Other reserves	38	(279)	(274)
Retained earnings	39	4,523	4,918
Equity attributable to shareholders of Aviva plc		16,758	17,169
Direct capital instrument and tier 1 notes	36	731	731
Equity excluding non-controlling interests		17,489	17,900
Non-controlling interests	40	966	1,235
Total equity		18,455	19,135
Liabilities			
Gross insurance liabilities	L & 42	144,077	148,650
Gross liabilities for investment contracts	M & 44	202,468	203,986
Unallocated divisible surplus	L & 48	5,949	9,082
Net asset value attributable to unitholders	D	18,125	18,327
Pension deficits and other provisions	AA, AB & 50	1,399	1,429
Deferred tax liabilities	AC & 49	1,885	2,377
Current tax liabilities		254	290
Borrowings	AD & 52	9,420	10,286
Payables and other financial liabilities	S & 53	16,882	16,459
Other liabilities	54	3,043	2,791
Liabilities of operations classified as held for sale	AH & 4(c)	8,521	9,873
Total liabilities		412,023	423,550
Total equity and liabilities		430,478	442,685

Approved by the Board on 6 March 2019

Thomas D. Stoddard
Chief Financial Officer

Company number: 2468686

The accounting policies (identified alphabetically) on pages 102 to 115 and notes (identified numerically) on pages 123 to 241 are an integral part of the financial statements.

Consolidated statement of cash flows

For the year ended 31 December 2018

The cash flows presented in this statement cover all the Group's activities and include flows from both policyholder and shareholder activities. All cash and cash equivalents are available for use by the Group.

	Note	2018 £m	2017 £m
Cash flows from operating activities¹			
Cash generated from operating activities	58(a)	6,405	8,361
Tax paid		(447)	(620)
Total net cash from operating activities		5,958	7,741
Cash flows from investing activities			
Acquisitions of, and additions to, subsidiaries, joint ventures and associates, net of cash acquired	58(b)	192	25
Disposals of subsidiaries, joint ventures and associates, net of cash transferred	58(c)	381	(49)
Purchases of property and equipment	21	(87)	(69)
Proceeds on sale of property and equipment		15	5
Purchases of intangible assets		(64)	(107)
Total net cash from/(used in) investing activities		437	(195)
Cash flows from financing activities			
Proceeds from issue of ordinary shares		8	12
Shares purchased in buy-back	32	(600)	(300)
Treasury shares purchased for employee trusts		(4)	—
New borrowings drawn down, net of expenses		3,148	1,320
Repayment of borrowings ²		(4,181)	(1,904)
Net repayment of borrowings	52(e)	(1,033)	(584)
Interest paid on borrowings		(551)	(610)
Preference dividends paid	16	(17)	(17)
Ordinary dividends paid	16	(1,128)	(983)
Forfeited dividend income		4	—
Coupon payments on direct capital instrument and tier 1 notes	16	(44)	(81)
Capital contributions from non-controlling interests of subsidiaries	40	3	36
Dividends paid to non-controlling interests of subsidiaries	40	(90)	(103)
Other ³		(13)	—
Total net cash used in financing activities		(3,465)	(2,630)
Total net increase in cash and cash equivalents		2,930	4,916
Cash and cash equivalents at 1 January		43,587	38,405
Effect of exchange rate changes on cash and cash equivalents		92	266
Cash and cash equivalents at 31 December	58(d)	46,609	43,587

1 Cash flows from operating activities include interest received of £5,093 million (2017: £5,302 million) and dividends received of £4,648 million (2017: £2,606 million).

2 Repayment of borrowings includes the redemption of €500 million 6.875% subordinated notes and \$575 million 7.875% undated subordinated notes in full at first call dates and the maturity of €350 million 0.100% senior notes.

3 Includes £10 million related to goodwill payments to preference shareholders, which was announced on 30 April 2018, and associated administration costs (see note 35) and a £3 million donation of forfeited dividend income to a charitable foundation.

The accounting policies (identified alphabetically) on pages 102 to 115 and notes (identified numerically) on pages 123 to 241 are an integral part of the financial statements.

[Notes to the consolidated financial statements](#)

1 – Presentation changes

During 2018, non-insurance business in the UK which was previously reported within the Other products and services segment, such as the savings business, are now reported within the long-term business or general insurance and health segments, as appropriate, as this is more reflective of the Group's operating segments and consistent with how the businesses are managed. Comparative information in the products and services segmental note 5(b) has been restated to reflect this change. This resulted in a loss before tax of £80 million (2017: £30 million) and profit before tax of £4 million (2017: £4 million) being transferred from the Other products and services segment to the long-term business and general insurance and health segments respectively. The corresponding net assets amount is £55 million (2017: £140 million). This change has no impact on the Group's adjusted operating profit, profit before tax, net assets or on the operating segmental disclosures in note 5(a).

2 – Exchange rates

The Group's principal overseas operations during the year were located within the eurozone, Canada and Poland. The results and cash flows of these operations have been translated into sterling at the average rates for the year, and the assets and liabilities have been translated at the year end rates as follows:

	2018	2017
Eurozone		
Average rate (€1 equals)	£0.88	£0.88
Year end rate (€1 equals)	£0.90	£0.89
Canada		
Average rate (\$CAD1 equals)	£0.58	£0.60
Year end rate (\$CAD1 equals)	£0.57	£0.59
Poland		
Average rate (PLN1 equals)	£0.21	£0.21
Year end rate (PLN1 equals)	£0.21	£0.21

3 – Subsidiaries, joint ventures and associates – acquisitions

This note provides details of the acquisitions of subsidiaries, joint ventures and associates that the Group has made during the year.

(i) Wealthify

On 8 February 2018, Aviva acquired a majority shareholding in Wealthify Group Limited, the holding company of Wealthify, for a cash consideration of £17 million. The investment is part of Aviva's strategy to build customer loyalty by providing customers with a wide range of insurance and investment services, all managed through the convenience and simplicity of Aviva's digital hub, MyAviva.

(ii) Friends First

On 13 November 2017, Aviva plc announced the acquisition of Friends First Life Assurance Company DAC (Friends First), an Irish insurer, for a consideration of €146 million (approximately £129 million). Following completion of the transaction on 1 June 2018, Friends First is now a wholly owned subsidiary. As a result of this acquisition, Aviva is now one of the largest composite insurers in Ireland.

The following table summarises the consideration for the acquisition, the fair value of the assets acquired, liabilities assumed and resulting allocation to goodwill.

	1 June 2018 Fair Value £m
Assets	
Acquired value of in-force business and intangible assets	96
Property and equipment	3
Investment property	424
Financial investments	3,207
Reinsurance assets	502
Receivables	33
Tax assets	3
Cash and cash equivalents	354
Total identifiable assets	4,622
Liabilities	
Gross Insurance liabilities	1,409
Gross liabilities for investment contracts	2,921
Unallocated divisible surplus	66
Payables and other financial liabilities	33
Other liabilities	28
Total identifiable liabilities	4,457
Net identifiable assets acquired	165
Consideration	129
Negative goodwill arising on acquisition	36

The acquisition resulted in a gain from negative goodwill of £36 million, as the fair value of the net assets acquired of £165 million exceeded the consideration paid of £129 million. The gain arose primarily due to differences between the valuation of the pension scheme liability used to determine the transaction price and the recognition and measurement principles defined by IAS 19. The gain has been recognised immediately in the income statement as required by IFRS 3. The receivables balance of £33 million is made up of other receivables, prepayments and accrued income, measured at fair value and assessed as fully recoverable.

In the period 1 June 2018 to 31 December 2018, the profits of the acquired Friends First company have contributed net earned premiums and fees and commission income of £68 million and a loss before tax attributable to shareholders of £0.4 million.

If the acquisition had been effective on 1 January 2018, on a pro-forma basis the contribution to the Group's net earned premiums is estimated at £102 million and profit before tax attributable to shareholders is estimated at £5 million. In determining this amount, management has assumed that the fair value adjustments that arose on the date of acquisition would have been the same if the acquisition occurred on 1 January 2018. The pro-forma results are provided for information purposes only and do not necessarily reflect the actual results that would have occurred had the acquisition taken place on 1 January 2018, nor are they necessarily indicative of the future results of the combined Group.

Subsequent events

On 30 January 2019, Aviva acquired a majority holding in Neos Ventures Limited for a cash consideration of £9 million.

4 – Subsidiaries, joint ventures and associates – disposals and held for sale

This note provides details of the disposals of subsidiaries, joint ventures and associates that the Group has made during the year, together with details of businesses held for sale at the year end.

(a) Summary

The profit on the disposal and remeasurement of subsidiaries, joint ventures and associates comprises:

	2018 £m	2017 £m
Disposals	113	237
Held for sale remeasurements	(13)	(125)
Remeasurements due to change in control status	2	23
Total profit on disposal and remeasurement	102	135

The profit on disposal in the period of £113 million (2017: £237 million) primarily relates to the disposals of Italy Avipop and three businesses in Spain (see note 4(b)(i) and (ii) below for further details respectively). There has been a £13 million remeasurement loss in relation to Friends Provident International Limited (FPI) (see note 4(c)(i) for further details) and a £2 million remeasurement gain due to change in control status of the Hong Kong business (see note 4(d) for further details).

(b) Disposals of subsidiaries, joint ventures and associates

The following businesses were disposed of in 2018:

	Italy – Avipop (i) £m	Spain (ii) £m	Total £m
Assets			
Goodwill, acquired value of in-force business and intangible assets	439	213	652
Investments	376	457	833
Receivables and other financial assets	17	4	21
Reinsurance assets	75	6	81
Deferred acquisition costs	15	—	15
Prepayments and accrued income	—	6	6
Cash and cash equivalents	42	18	60
Total assets	964	704	1,668
Liabilities			
Gross insurance liabilities	376	381	757
Payables and other financial liabilities	2	19	21
Tax liabilities	143	48	191
Other liabilities	6	21	27
Total liabilities	527	469	996
Net assets	437	235	672
Non-controlling interests before disposal	(213)	(128)	(341)
Group's share of net assets disposed	224	107	331
Cash consideration	235	189	424
Less: transaction costs	(3)	(4)	(7)
Net consideration	232	185	417
Reserves recycled to the income statement	16	(14)	2
Profit on disposal	24	64	88
Other small disposals (iii)			25
Total profit on disposal			113

(i) Italy – Avipop

On 29 March 2018, Aviva announced that it had completed the sale of its entire shareholding of Avipop Assicurazioni S.p.A and Avipop Vita S.p.A to Banco BPM for cash consideration of €265 million (approximately £235 million). The transaction resulted in a total gain on disposal of £24 million.

(ii) Spain

On 11 July 2018, Aviva announced that it had completed the sale of its entire shareholding in life insurance and pension joint ventures Caja Murcia Vida and Caja Granada Vida to Bankia for a total consideration of €203 million (approximately £180 million). In addition, on 1 October 2018, Aviva completed the sale of its entire 50% shareholding in the small life insurance operation Pelayo Vida to Santa Lucia for a total consideration of €10 million (approximately £9 million). These transactions resulted in a total gain on disposal of £64 million.

(iii) Other

On 19 January 2018, Aviva announced that it had completed the sale of its entire 49% shareholding in its joint venture in Taiwan, First Aviva Life (Aviva Taiwan) to Aviva's joint venture partner, First Financial Holding Company Limited (FFH) for cash consideration of \$1. The transaction resulted in a gain of £7 million arising from reserves recycled to the Income Statement. Remeasurement losses arising from the classification of Aviva Taiwan as held for sale were recognised in 2017.

4 – Subsidiaries, joint ventures and associates – disposals and held for sale continued

On 5 November 2018, Aviva Investors completed the sale of its Real Estate Multi-Manager business to LaSalle Investment Management and exited its partnership arrangement in Encore+, a pan-European commercial property fund, also with LaSalle. The assets disposed of represent customer related intangible assets. The gain on disposal was £27 million.

The remaining balance of £9 million loss primarily relates to other currency translation reserve recycling adjustments.

(iv) Disposals of other investments

In the second half of 2018, Aviva France disposed of its investments in the asset management company Primonial Real Estate Investment Management and the breakdown assistance company Opteven. The realised gains on disposal of these investments recognised in net investment income was €107 million (approximately £94 million).

(c) Assets and liabilities of operations classified as held for sale

The assets and liabilities of operations classified as held for sale as at 31 December 2018 are as follows:

	2018 £m	2017 £m
Assets		
Goodwill, acquired value of in-force and other intangibles	660	1,467
Property and equipment	5	5
Loans	—	6
Financial investments	7,251	8,306
Reinsurance assets	45	123
Other assets	206	225
Cash and cash equivalents	688	739
Total assets	8,855	10,871
Liabilities		
Gross insurance liabilities	121	914
Gross liability for investment contracts	8,341	8,663
Unallocated divisible surplus	—	19
Other liabilities	59	277
Total liabilities	8,521	9,873
Net assets	334	998

Assets and liabilities of operations classified as held for sale as at 31 December 2018 relate to the expected disposal of the international operations of FPI. See below for further details. Assets and liabilities of operations classified as held for sale during 2017 relate to Italy Avipop, Aviva Taiwan and Spain which were disposed of in 2018 and FPI.

(i) FPI

On 19 July 2017, Aviva announced the sale of FPI to RL360 Holding Company Limited, a subsidiary of International Financial Group Limited, for a total consideration of £340 million. The conditions defined in IFRS 5 for a subsidiary to be classified as held for sale include the presumption that the sale will be completed within 12 months of the date of reclassification. The transaction remains subject to regulatory approvals and is now expected to complete in the first half of 2019. As such, the subsidiary continues to be classified as held for sale and has been remeasured at fair value based on the expected sale price less costs to sell, calculated as £334 million. This resulted in a total loss on remeasurement of £118 million in 2017, and an additional remeasurement loss of £13 million in 2018 (see note 18). The goodwill attributable to FPI was fully impaired in 2017 (see note 17). The business remains a consolidated subsidiary of Aviva at the balance sheet date.

(d) Remeasurements due to change in control status

On 13 February 2018, Aviva announced that it has completed the transaction to develop a digital insurance joint venture in Hong Kong (Blue) with Hillhouse Capital Group (Hillhouse) and Tencent Holdings Limited (Tencent). The joint venture commenced operating under its new corporate structure during the first half of 2018. The transaction included the sale of 60% of the shareholding in Aviva Life Insurance Company Limited (Aviva Hong Kong) for cash consideration of HKD 301 million (approximately £29 million). The transaction resulted in a remeasurement gain of £2 million mainly arising through the recycling of reserves to the income statement and, additionally, a loss of £4 million in equity in accordance with IFRS 10 as Aviva has retained control of certain activities under the sale agreement.

(e) Significant restrictions

In certain jurisdictions the ability of subsidiaries to transfer funds to the Group in the form of cash dividends or to repay loans and advances is subject to local corporate or insurance laws and regulations and solvency requirements. There are no protective rights of non-controlling interests which significantly restrict the Group's ability to access or use the assets and settle the liabilities of the Group.

5 – Segmental information

The Group's results can be segmented either by activity or by geography. Our primary reporting format is along market reporting lines, with supplementary information being given by business activity. This note provides segmental information on the consolidated income statement and consolidated statement of financial position.

(a) Operating segments

United Kingdom

The United Kingdom comprises two operating segments – Life and General Insurance. The principal activities of our UK Life operations are life insurance, long-term health and accident insurance, savings, pensions and annuity business. UK General Insurance provides insurance cover to individuals and businesses, for risks associated mainly with motor vehicles, property and liability (such as employers' liability and professional indemnity liability) and medical expenses.

Canada

The principal activity of our operation in Canada is general insurance. In particular it provides personal and commercial lines insurance products principally distributed through insurance brokers.

France

The principal activities of our operations in France are long-term business and general insurance. The long-term business offers a range of long-term insurance and savings products, primarily for individuals, with a focus on the unit-linked market. The general insurance business predominantly sells personal and small commercial lines insurance products through agents and a direct insurer.

Poland

Activities in Poland comprise long-term business and general insurance and includes our long-term business in Lithuania.

Italy, Ireland, Spain and Other

These countries are not individually significant at a Group level, so have been aggregated into a single reporting segment in line with IFRS 8. The principal activities of our operations in Italy and Ireland are long-term business and general insurance. The principal activity of our operation in Spain was the sale of accident and health insurance and a selection of savings products. Our 'Other' operations include our life operations in Turkey. This segment also includes Friends First, which was acquired on 1 June 2018 (see note 3). The results of entities within Spain are included up to the date of disposal (Unicorp Vida and Caja España Vida on 15 September 2017, Caja Murcia Vida and Caja Granada Vida on 11 July 2018 and Pelayo Vida on 1 October 2018) and the results of Avipop, part of our operations in Italy, have been included up to the date of disposal on 29 March 2018 (see note 4).

Asia

Our activities in Asia principally comprise our long-term business operations in China, India, Singapore, Hong Kong, Vietnam, Indonesia, Taiwan (up to 19 January 2018, (see note 4(b))) and FPI (see note 4(c)). This segment also includes general insurance and health operations in Singapore and health operations in Indonesia. This segment includes the results of the digital insurance joint venture in Hong Kong, which commenced operating under its new corporate structure during the first half of 2018.

Aviva Investors

Aviva Investors operates in most of the markets in which the Group operates, in particular the UK, France, North America and Asia Pacific. Aviva Investors manages policyholders' and shareholders' invested funds, provides investment management services for institutional pension fund mandates and manages a range of retail investment products. These include investment funds, unit trusts, open-ended investment companies and individual savings accounts.

Other Group activities

Investment return on centrally held assets and head office expenses, such as Group treasury and finance functions, together with certain taxes and financing costs arising on central borrowings are included in 'Other Group activities', along with central core structural borrowings and certain tax balances in the segmental statement of financial position. The results of our internal reinsurance and digital broker operations and the Group's interest in Wealthify (see note 3) are also included in this segment, as are the elimination entries for certain inter-segment transactions.

5 – Segmental information continued

Measurement basis

The accounting policies of the segments are the same as those for the Group as a whole. Any transactions between the business segments are subject to normal commercial terms and market conditions. The Group evaluates performance of operating segments on the basis of:

- (i) profit or loss from operations before tax attributable to shareholders
- (ii) profit or loss from operations before tax attributable to shareholders, adjusted for items outside the segment management's control, including investment market performance and fiscal policy changes.

(a) (i) Segmental income statement for the year ended 31 December 2018

	United Kingdom		Europe					Aviva Investors ³	Other Group activities ⁴	Total
	Life £m	GI £m	Canada ² £m	France £m	Poland £m	Italy, Ireland, Spain and Other £m	Asia £m	£m	£m	£m
Gross written premiums	7,302	4,504	3,047	5,584	616	6,504	1,102	—	—	28,659
Premiums ceded to reinsurers	(1,666)	(317)	(119)	(77)	(12)	(113)	(20)	—	(2)	(2,326)
Internal reinsurance revenue	—	6	—	—	—	(2)	(7)	—	3	—
Premiums written net of reinsurance	5,636	4,193	2,928	5,507	604	6,389	1,075	—	1	26,333
Net change in provision for unearned premiums	14	(87)	27	(38)	7	9	(13)	—	—	(81)
Net earned premiums	5,650	4,106	2,955	5,469	611	6,398	1,062	—	1	26,252
Fee and commission income	939	122	24	313	94	113	202	368	5	2,180
Net investment (expense)/income	6,589	4,228	2,979	5,782	705	6,511	1,264	368	6	28,432
Inter-segment revenue	(6,693)	16	51	(2,302)	(73)	(1,111)	(286)	37	(486)	(10,847)
Share of profit of joint ventures and associates	—	—	—	—	—	—	—	259	—	259
Profit/(loss) on the disposal and remeasurement of subsidiaries, joint ventures and associates	78	—	1	9	—	10	14	—	—	112
	—	—	—	—	—	89	(5)	27	(9)	102
Segmental income¹	(26)	4,244	3,031	3,489	632	5,499	987	691	(489)	18,058
Claims and benefits paid, net of recoveries from reinsurers	(10,184)	(2,731)	(1,989)	(4,659)	(356)	(2,595)	(570)	—	(58)	(23,142)
Change in insurance liabilities, net of reinsurance	6,184	351	(133)	557	148	(872)	(40)	—	51	6,246
Change in investment contract provisions	7,540	—	—	27	—	(2,249)	42	(39)	—	5,321
Change in unallocated divisible surplus	270	—	—	1,754	12	1,063	138	—	—	3,237
Fee and commission expense	(741)	(1,225)	(791)	(484)	(146)	(343)	(199)	(33)	569	(3,393)
Other expenses	(1,687)	(220)	(182)	(256)	(106)	(188)	(272)	(449)	(483)	(3,843)
Inter-segment expenses	(232)	(5)	(6)	(1)	(6)	(7)	—	—	(2)	(259)
Finance costs	(157)	(1)	(5)	(1)	—	(5)	(3)	—	(401)	(573)
Segmental expenses	993	(3,831)	(3,106)	(3,063)	(454)	(5,196)	(904)	(521)	(324)	(16,406)
Profit/(loss) before tax	967	413	(75)	426	178	303	83	170	(813)	1,652
Tax attributable to policyholders' returns	469	—	—	—	—	1	7	—	—	477
Profit/(loss) before tax attributable to shareholders' profits	1,436	413	(75)	426	178	304	90	170	(813)	2,129
Adjusting items:										
Reclassification of corporate costs and unallocated interest	—	(16)	31	48	—	(1)	—	5	(67)	—
Life business: Investment variances and economic assumption changes	115	—	—	(6)	10	57	21	—	—	197
Non-life business: Short-term fluctuation in return on investments	—	172	45	44	2	57	—	—	156	476
General insurance and health business: Economic assumption changes	—	4	—	(5)	—	—	—	—	—	(1)
Impairment of goodwill, joint ventures, associates and other amounts expensed	—	—	—	—	2	—	3	—	8	13
Amortisation and impairment of intangibles	73	32	46	2	7	3	13	3	30	209
Amortisation and impairment of AVIF	285	—	—	2	—	6	130	—	3	426
(Profit)/loss on the disposal and remeasurement of subsidiaries, joint ventures and associates	—	—	—	—	—	(89)	5	(27)	9	(102)
Other ⁵	—	(190)	—	—	—	(36)	—	—	(5)	(231)
Group adjusted operating profit/(loss) before tax attributable to shareholders' profits after integration and restructuring costs	1,909	415	47	511	199	301	262	151	(679)	3,116
Integration and restructuring costs	—	—	—	—	—	—	—	—	—	—
Group adjusted operating profit/(loss) before tax attributable to shareholders' profits	1,909	415	47	511	199	301	262	151	(679)	3,116

1 Total reported income, excluding inter-segment revenue, includes £4,412 million from the United Kingdom (Aviva plc's country of domicile). Income is attributed on the basis of geographical origin which does not differ materially from revenue by geographical destination, as most risks are located in the countries where the contracts were written.

2 Canada adjusted operating profit includes £1 million relating to non-insurance activities.

3 Aviva Investors adjusted operating profit includes £1 million profit relating to Aviva Investors Pooled Pensions business.

4 Other Group activities include Group Reinsurance and net expenses of £99 million associated with supporting the development of the Group's digital business written through its UK insurance intermediary which places business primarily on behalf of UK General Insurance.

5 Other includes a movement in the discount rate used for estimating lump sum payments in settlement of bodily injury claims which resulted in a gain of £190 million (see note 43(b)), a provision release of £78 million relating to the sale of Aviva USA in 2013, a gain of £36 million relating to negative goodwill on the acquisition of Friends First (see note 3), a charge of £63 million relating to the UK defined benefit pension scheme as a result of the requirement to equalise members' benefits for the effects of Guaranteed Minimum Pension (see note 51(b)) and a charge of £10 million relating to goodwill payments to preference shareholders, which was announced on 30 April 2018, and associated administration costs (see note 35).

5 – Segmental information continued

(a) (ii) Segmental income statement for the year ended 31 December 2017

	United Kingdom		Europe							Total £m
	Life £m	GI £m	Canada £m	France £m	Poland £m	Italy, Ireland, Spain and Other £m	Asia £m	Aviva Investors ² £m	Other Group Activities ³ £m	
Gross written premiums	6,872	4,355	3,138	5,692	594	5,923	1,032	—	—	27,606
Premiums ceded to reinsurers	(1,531)	(271)	(110)	(78)	(11)	(101)	(127)	—	—	(2,229)
Internal reinsurance revenue	—	(6)	—	—	—	(9)	(10)	—	25	—
Premiums written net of reinsurance	5,341	4,078	3,028	5,614	583	5,813	895	—	25	25,377
Net change in provision for unearned premiums	—	(63)	(84)	23	3	(21)	(11)	—	—	(153)
Net earned premiums	5,341	4,015	2,944	5,637	586	5,792	884	—	25	25,224
Fee and commission income	906	121	24	316	83	141	193	407	(4)	2,187
Net investment income	6,247	4,136	2,968	5,953	669	5,933	1,077	407	21	27,411
Inter-segment revenue	16,202	138	86	2,613	292	811	1,465	136	323	22,066
Share of profit/(loss) of joint ventures and associates	—	—	—	—	—	—	—	239	—	239
Profit/(loss) on the disposal and remeasurement of subsidiaries, joint ventures and associates	72	—	—	14	—	12	(57)	—	—	41
Segmental income ¹	—	—	—	216	16	28	(118)	—	(7)	135
Claims and benefits paid, net of recoveries from reinsurers	22,521	4,274	3,054	8,796	977	6,784	2,367	782	337	49,892
Change in insurance liabilities, net of reinsurance	(10,783)	(2,547)	(1,902)	(5,145)	(397)	(2,799)	(526)	—	(14)	(24,113)
Change in investment contract provisions	1,380	78	(221)	(804)	(134)	(928)	(450)	—	5	(1,074)
Change in unallocated divisible surplus	(9,041)	—	—	(1,591)	—	(2,121)	(947)	(137)	—	(13,837)
Fee and commission expense	195	—	—	153	(2)	85	(137)	—	—	294
Other expenses	(496)	(1,268)	(796)	(703)	(134)	(421)	(144)	(39)	(328)	(4,329)
Inter-segment expenses	(1,385)	(221)	(178)	(281)	(102)	(229)	(298)	(418)	(425)	(3,537)
Finance costs	(207)	(8)	(6)	2	(6)	(12)	—	—	(2)	(239)
Segmental expenses	(233)	(1)	(5)	(1)	—	(7)	(3)	—	(433)	(683)
Profit/(loss) before tax	(20,570)	(3,967)	(3,108)	(8,370)	(775)	(6,432)	(2,505)	(594)	(1,197)	(47,518)
Tax attributable to policyholders' returns	1,951	307	(54)	426	202	352	(138)	188	(860)	2,374
Profit/(loss) before tax attributable to shareholders' profits	(330)	—	—	—	—	(4)	(37)	—	—	(371)
Adjusting items:	1,621	307	(54)	426	202	348	(175)	188	(860)	2,003
Reclassification of corporate costs and unallocated interest	—	(12)	28	48	—	—	—	5	(69)	—
Life business: Investment variances and economic assumption changes	(323)	—	—	249	(7)	12	38	—	(3)	(34)
Non-life business: Short-term fluctuation in return on investments	—	56	7	(26)	(3)	27	—	—	284	345
General insurance and health business: Economic assumption changes	—	18	(2)	(9)	—	—	—	—	—	7
Impairment of goodwill, joint ventures, associates and other amounts expensed	—	—	2	—	—	—	47	—	—	49
Amortisation and impairment of intangibles	74	31	50	1	7	5	9	5	15	197
Amortisation and impairment of AVIF	327	—	—	2	—	1	154	—	11	495
(Profit)/loss on the disposal and remeasurement of subsidiaries, joint ventures and associates	—	—	—	(216)	(16)	(28)	118	—	7	(135)
Group adjusted operating profit/(loss) before tax attributable to shareholders' profits after integration and restructuring costs	1,699	400	31	475	183	365	191	198	(615)	2,927
Integration and restructuring costs	65	11	15	25	—	11	—	3	11	141
Group adjusted operating profit/(loss) before tax attributable to shareholders' profits	1,764	411	46	500	183	376	191	201	(604)	3,068

1 Total reported income, excluding inter-segment revenue, includes £26,949 million from the United Kingdom (Aviva plc's country of domicile). Income is attributed on the basis of geographical origin which does not differ materially from revenue by geographical destination, as most risks are located in the countries where the contracts were written.

2 Aviva Investors adjusted operating profit includes £1 million profit relating to the Aviva Investors Pooled Pensions business.

3 Other Group activities include Group Reinsurance and net expenses of £48 million associated with supporting the development of the Group's digital business written through its UK insurance intermediary which places business primarily on behalf of UK General Insurance.

5 – Segmental information continued

(a) (iii) Segmental statement of financial position as at 31 December 2018

	United Kingdom		Europe							
	Life £m	GI £m	Canada £m	France £m	Poland £m	Italy, Ireland, Spain and Other £m	Asia £m	Aviva Investors £m	Other Group activities £m	Total £m
Goodwill	663	924	82	—	27	125	51	—	—	1,872
Acquired value of in-force business and intangible assets	2,424	154	220	98	72	96	25	5	107	3,201
Interests in, and loans to, joint ventures and associates	859	—	8	117	—	55	479	—	—	1,518
Property and equipment	71	29	50	258	4	5	5	4	122	548
Investment property	6,124	436	—	3,595	—	807	—	616	(96)	11,482
Loans	27,619	—	164	710	—	255	37	—	—	28,785
Financial investments	169,221	3,627	4,696	71,903	3,423	32,842	5,422	343	6,108	297,585
Deferred acquisition costs	1,361	489	367	354	124	259	11	—	—	2,965
Other assets	38,240	5,311	1,225	8,355	304	4,840	525	1,267	13,600	73,667
Assets of operations classified as held for sale	—	—	—	—	—	—	8,855	—	—	8,855
Total assets	246,582	10,970	6,812	85,390	3,954	39,284	15,410	2,235	19,841	430,478
Insurance liabilities										
Long-term business and outstanding claims provisions	94,181	4,914	3,455	16,778	3,068	12,646	4,069	—	4	139,115
Unearned premiums	214	2,104	1,517	501	109	410	91	—	—	4,946
Other insurance liabilities	—	16	—	—	—	—	—	—	—	16
Gross liabilities for investment contracts	123,406	—	—	54,159	4	23,874	—	1,025	—	202,468
Unallocated divisible surplus	2,244	—	—	3,518	55	(78)	210	—	—	5,949
Net asset value attributable to unitholders	25	—	—	2,427	—	—	—	—	15,673	18,125
External borrowings	1,660	10	—	—	—	46	—	—	7,704	9,420
Other liabilities, including inter-segment liabilities	13,667	(255)	1,011	5,350	230	944	801	589	1,126	23,463
Liabilities of operations classified as held for sale	—	—	—	—	—	—	8,521	—	—	8,521
Total liabilities	235,397	6,789	5,983	82,733	3,466	37,842	13,692	1,614	24,507	412,023
Total equity										18,455
Total equity and liabilities										430,478

(a) (iv) Segmental statement of financial position as at 31 December 2017

	United Kingdom		Europe							
	Life £m	GI £m	Canada £m	France £m	Poland £m	Italy, Ireland, Spain and Other £m	Asia £m	Aviva Investors £m	Other Group activities £m	Total £m
Goodwill	663	924	84	—	29	124	52	—	—	1,876
Acquired value of in-force business and intangible assets	2,751	152	258	90	78	4	26	4	92	3,455
Interests in, and loans to, joint ventures and associates	936	—	9	184	—	68	445	—	—	1,642
Property and equipment	52	30	46	253	4	3	8	4	109	509
Investment property	6,242	324	—	3,322	—	215	—	788	(94)	10,797
Loans	26,695	5	180	739	7	197	34	—	—	27,857
Financial investments	184,428	4,184	4,592	72,886	3,775	27,403	5,007	400	8,407	311,082
Deferred acquisition costs	1,364	487	383	322	118	222	8	2	—	2,906
Other assets	38,800	5,370	1,338	8,567	244	3,591	765	1,020	11,995	71,690
Assets of operations classified as held for sale	—	—	—	—	—	1,685	9,186	—	—	10,871
Total assets	261,931	11,476	6,890	86,363	4,255	33,512	15,531	2,218	20,509	442,685
Insurance liabilities										
Long-term business and outstanding claims provisions ¹	100,183	5,360	3,449	17,213	3,275	10,110	4,056	—	11	143,657
Unearned premiums	228	2,003	1,578	458	119	520	74	—	—	4,980
Other insurance liabilities ¹	—	13	—	—	—	—	—	—	—	13
Gross liabilities for investment contracts	130,890	—	—	53,529	2	18,335	—	1,230	—	203,986
Unallocated divisible surplus	2,514	—	—	5,239	68	922	339	—	—	9,082
Net asset value attributable to unitholders	57	—	—	2,472	—	—	—	—	15,798	18,327
External borrowings	1,566	—	—	1	—	70	—	—	8,649	10,286
Other liabilities, including inter-segment liabilities	14,234	(294)	971	4,927	253	869	618	392	1,376	23,346
Liabilities of operations classified as held for sale	—	—	—	—	—	1,021	8,852	—	—	9,873
Total liabilities	249,672	7,082	5,998	83,839	3,717	31,847	13,939	1,622	25,834	423,550
Total equity										19,135
Total equity and liabilities										442,685

¹ Following a review, 2017 comparative amounts have been amended, with a reclassification of £244 million made from 'Other insurance liabilities' to 'Long-term business and outstanding claims provisions' in order to align with note 42(a).

(b) Further analysis by products and services

The Group's results can be further analysed by products and services which comprise long-term business, general insurance and health, fund management and other activities. Non-insurance businesses in the UK previously included within 'Other', such as the savings business, have been reclassified to the long-term business or general insurance and health segments, as appropriate, as this presentation is consistent with how the business is managed (see note 1 for further details). Results for the year ended 31 December 2017 have been restated accordingly.

5 – Segmental information continued

Long-term business

Our long-term business comprises life insurance, long-term health and accident insurance, savings, pensions and annuity business written by our life insurance subsidiaries, including managed pension fund business. Long-term business also includes our share of the other life and related business written in our associates and joint ventures, as well as lifetime mortgage business written in the UK.

General insurance and health

Our general insurance and health business provides insurance cover to individuals and to small and medium-sized businesses, for risks associated mainly with motor vehicles, property and liability, such as employers' liability and professional indemnity liability, and medical expenses.

Fund management

Our fund management business invests policyholders' and shareholders' funds and provides investment management services for institutional pension fund mandates. It manages a range of retail investment products, including investment funds, unit trusts, open-ended investment companies and individual savings accounts. Clients include Aviva Group businesses and third-party financial institutions, pension funds, public sector organisations, investment professionals and private investors.

Other

'Other' includes service companies, head office expenses such as Group treasury and finance functions, and certain financing costs and taxes not allocated to business segments and elimination entries for certain inter-segment transactions.

(b) (i) Segmental income statement – products and services for the year ended 31 December 2018

	Long-term business ² £m	General insurance and Health ^{2,3} £m	Fund management £m	Other ^{2,4} £m	Total £m
Gross written premiums ¹	18,140	10,519	—	—	28,659
Premiums ceded to reinsurers	(1,775)	(551)	—	—	(2,326)
Premiums written net of reinsurance	16,365	9,968	—	—	26,333
Net change in provision for unearned premiums	—	(81)	—	—	(81)
Net earned premiums	16,365	9,887	—	—	26,252
Fee and commission income	1,496	138	365	181	2,180
	17,861	10,025	365	181	28,432
Net investment (expense)/income	(10,375)	63	(1)	(534)	(10,847)
Inter-segment revenue	—	—	263	—	263
Share of profit/(loss) of joint ventures and associates	112	—	—	—	112
Profit/(loss) on the disposal and remeasurement of subsidiaries, joint ventures and associates	84	—	27	(9)	102
Segmental income	7,682	10,088	654	(362)	18,062
Claims and benefits paid, net of recoveries from reinsurers	(16,540)	(6,602)	—	—	(23,142)
Change in insurance liabilities, net of reinsurance	6,044	202	—	—	6,246
Change in investment contract provisions	5,321	—	—	—	5,321
Change in unallocated divisible surplus	3,237	—	—	—	3,237
Fee and commission expense	(1,248)	(2,592)	(31)	478	(3,393)
Other expenses	(2,152)	(596)	(461)	(634)	(3,843)
Inter-segment expenses	(249)	(12)	—	(2)	(263)
Finance costs	(164)	(6)	—	(403)	(573)
Segmental expenses	(5,751)	(9,606)	(492)	(561)	(16,410)
Profit/(loss) before tax	1,931	482	162	(923)	1,652
Tax attributable to policyholders' returns	477	—	—	—	477
Profit/(loss) before tax attributable to shareholders' profits	2,408	482	162	(923)	2,129
Adjusting items	591	222	(16)	190	987
Group adjusted operating profit/(loss) before tax attributable to shareholders' profits	2,999	704	146	(733)	3,116

1 Gross written premiums include inward reinsurance premiums assumed from other companies amounting to £56 million, which all relates to property and liability insurance.

2 Non-insurance business in the UK previously included within Other operations, such as the savings business, have been reclassified to long-term business and general insurance and health segments as this presentation is consistent with how the business is managed. See note 1 for further details. The impact of this change was to reduce long-term operating profit by £80 million and increase general insurance and health operating profit by £4 million.

3 General insurance and health business segment includes gross written premiums of £879 million relating to health business. The remaining business relates to property and liability insurance.

4 Other includes net expenses of £99 million associated with supporting the development of the Group's digital business written through its UK insurance intermediary which places business primarily on behalf of UK General Insurance.

5 – Segmental information continued

(b) (ii) Segmental income statement – products and services for the year ended 31 December 2017 – restated¹

	Long-term business £m	General insurance and health ³ £m	Fund management £m	Other ⁴ £m	Total £m
Gross written premiums ²	17,083	10,523	—	—	27,606
Premiums ceded to reinsurers	(1,741)	(488)	—	—	(2,229)
Premiums written net of reinsurance	15,342	10,035	—	—	25,377
Net change in provision for unearned premiums	—	(153)	—	—	(153)
Net earned premiums	15,342	9,882	—	—	25,224
Fee and commission income	1,486	134	369	198	2,187
	16,828	10,016	369	198	27,411
Net investment income/(expense)	21,468	331	(1)	268	22,066
Inter-segment revenue	—	—	244	—	244
Share of profit of joint ventures and associates	41	—	—	—	41
Profit/(loss) on the disposal and remeasurement of subsidiaries, joint ventures and associates	100	42	—	(7)	135
Segmental income	38,437	10,389	612	459	49,897
Claims and benefits paid, net of recoveries from reinsurers	(17,791)	(6,322)	—	—	(24,113)
Change in insurance liabilities, net of reinsurance	(863)	(211)	—	—	(1,074)
Change in investment contract provisions	(13,837)	—	—	—	(13,837)
Change in unallocated divisible surplus	294	—	—	—	294
Fee and commission expense	(1,210)	(2,668)	(36)	(415)	(4,329)
Other expenses	(1,919)	(626)	(425)	(567)	(3,537)
Inter-segment expenses	(226)	(15)	—	(3)	(244)
Finance costs	(240)	(6)	—	(437)	(683)
Segmental expenses	(35,792)	(9,848)	(461)	(1,422)	(47,523)
Profit/(loss) before tax	2,645	541	151	(963)	2,374
Tax attributable to policyholders' returns	(371)	—	—	—	(371)
Profit/(loss) before tax attributable to shareholders' profits	2,274	541	151	(963)	2,003
Adjusting items	578	163	13	311	1,065
Group adjusted operating profit/(loss) before tax attributable to shareholders' profits	2,852	704	164	(652)	3,068

1 Non-insurance business in the UK previously included within 'Other', such as the savings business, have been reclassified to the long-term business and general insurance and health segments as this presentation is consistent with how the business is managed. See note 1 for further details. The impact of this change was to reduce long-term operating profit by £30 million and increase general insurance and health operating profit by £4 million.

2 Gross written premiums include inward reinsurance premiums assumed from other companies amounting to £91 million, of which £73 million relates to property and liability insurance and £18 million relates to long-term business.

3 General insurance and health business segment includes gross written premiums of £914 million relating to health business. The remaining business relates to property and liability insurance.

4 Other includes net expenses of £48 million associated with supporting the development of the Group's digital business written through its UK insurance intermediary which places business primarily on behalf of UK General Insurance.

(b) (iii) Segmental statement of financial position – products and services as at 31 December 2018

	Long-term business ¹ £m	General insurance and health ¹ £m	Fund management £m	Other ¹ £m	Total £m
Goodwill	722	1,083	—	67	1,872
Acquired value of in-force business and intangible assets	2,688	403	5	105	3,201
Interests in, and loans to, joint ventures and associates	1,502	8	—	8	1,518
Property and equipment	260	147	4	137	548
Investment property	10,995	584	—	(97)	11,482
Loans	28,620	165	—	—	28,785
Financial investments	280,130	11,279	66	6,110	297,585
Deferred acquisition costs	1,877	1,088	—	—	2,965
Other assets	49,316	9,243	1,117	13,991	73,667
Assets of operations classified as held for sale	8,855	—	—	—	8,855
Total assets	384,965	24,000	1,192	20,321	430,478
Gross insurance liabilities	127,709	16,368	—	—	144,077
Gross liabilities for investment contracts	202,468	—	—	—	202,468
Unallocated divisible surplus	5,949	—	—	—	5,949
Net asset value attributable to unitholders	2,451	—	—	15,674	18,125
External borrowings	1,706	10	—	7,704	9,420
Other liabilities, including inter-segment liabilities	19,124	1,373	574	2,392	23,463
Liabilities of operations classified as held for sale	8,521	—	—	—	8,521
Total liabilities	367,928	17,751	574	25,770	412,023
Total equity					18,455
Total equity and liabilities					430,478

1 Non-insurance business in the UK previously included within 'Other', such as the savings business, have been reclassified to the long-term business and general insurance and health segments as this presentation is consistent with how the business is managed. See note 1 for further details.

5 – Segmental information continued**(b) (iv) Segmental statement of financial position – products and services as at 31 December 2017 – restated¹**

	Long-term business £m	General insurance and health £m	Fund management £m	Other £m	Total £m
Goodwill	720	1,084	3	69	1,876
Acquired value of in-force business and intangible assets	2,922	439	4	90	3,455
Interests in, and loans to, joint ventures and associates	1,617	9	—	16	1,642
Property and equipment	240	136	4	129	509
Investment property	10,392	499	—	(94)	10,797
Loans	27,671	186	—	—	27,857
Financial investments	290,840	11,934	54	8,254	311,082
Deferred acquisition costs	1,804	1,100	2	—	2,906
Other assets	49,118	9,283	905	12,384	71,690
Assets of operations classified as held for sale	10,552	319	—	—	10,871
Total assets	395,876	24,989	972	20,848	442,685
Gross insurance liabilities	131,987	16,663	—	—	148,650
Gross liabilities for investment contracts	203,986	—	—	—	203,986
Unallocated divisible surplus	9,082	—	—	—	9,082
Net asset value attributable to unitholders	2,529	—	—	15,798	18,327
External borrowings	1,601	—	—	8,685	10,286
Other liabilities, including inter-segment liabilities	18,828	1,413	376	2,729	23,346
Liabilities of operations classified as held for sale	9,694	179	—	—	9,873
Total liabilities	377,707	18,255	376	27,212	423,550
Total equity					19,135
Total equity and liabilities					442,685

¹ Non-insurance business in the UK previously included within 'Other', such as the savings business, have been reclassified to the long-term business and general insurance and health segments as this presentation is consistent with how the business is managed. See note 1 for further details.

6 – Details of income

This note gives further detail on the items appearing in the income section of the consolidated income statement.

	2018 £m	2017 £m
Gross written premiums		
Long-term:		
Insurance contracts	11,064	11,192
Participating investment contracts	7,076	5,891
General insurance and health	10,519	10,523
	28,659	27,606
Less: premiums ceded to reinsurers	(2,326)	(2,229)
Gross change in provision for unearned premiums (note 42(c)(iv))	(98)	(158)
Reinsurers' share of change in provision for unearned premiums (note 46(c)(iii))	17	5
Net change in provision for unearned premiums	(81)	(153)
Net earned premiums	26,252	25,224
Fee and commission income		
Fee income from investment contract business	1,059	1,062
Fund management fee income	527	512
Other fee income	405	422
Reinsurance commissions receivable	26	33
Other commission income	164	161
Net change in deferred revenue	(1)	(3)
	2,180	2,187
Total revenue	28,432	27,411
Net investment income		
Interest and similar income		
From financial instruments designated as trading and other than trading	5,051	4,994
From AFS investments and financial instruments at amortised cost	54	42
	5,105	5,036
Dividend income	4,649	2,542
Other income from investments designated as trading		
Realised (losses)/gains on disposals	(922)	511
Unrealised gains and losses (see accounting policy K)		
(Losses)/gains arising in the year	(1,726)	436
Gains/(losses) recognised now realised	922	(511)
	(804)	(75)
	(1,726)	436
Other income from investments designated as other than trading		
Realised gains on disposals	7,278	6,198
Unrealised gains and losses (see accounting policy K)		
(Losses)/gains arising in the year	(19,919)	13,153
Losses recognised now realised	(7,278)	(6,198)
	(27,197)	6,955
	(19,919)	13,153
Realised gains on AFS investments		
Gains recognised in prior periods as unrealised in equity	78	2
Net income from investment properties		
Rent	583	574
Expenses relating to these properties	(121)	(101)
Realised gains on disposal	69	30
Fair value gains on investment properties (note 22)	307	481
	838	984
Foreign exchange gains/(losses) on investments other than trading	192	(12)
Other investment expenses	(64)	(75)
Net investment (expense)/income	(10,847)	22,066
Share of profit after tax of joint ventures (note 19(a)(i))	91	89
Share of profit/(loss) after tax of associates (note 20(a)(i))	21	(48)
Share of profit after tax of joint ventures and associates	112	41
Profit on disposal and remeasurement of subsidiaries, joint ventures and associates (note 4(a))	102	135
Total income	17,799	49,653

7 – Details of expenses

This note gives further detail on the items appearing in the expenses section of the consolidated income statement.

	2018 £m	2017 £m
Claims and benefits paid		
Claims and benefits paid to policyholders on long-term business		
Insurance contracts	12,163	13,547
Participating investment contracts	6,117	5,694
Non-participating investment contracts	8	20
Claims and benefits paid to policyholders on general insurance and health business	6,913	6,647
	25,201	25,908
Less: Claim recoveries from reinsurers		
Insurance contracts	(1,984)	(1,772)
Participating investment contracts	(75)	(23)
Claims and benefits paid, net of recoveries from reinsurers	23,142	24,113
Change in insurance liabilities		
Change in insurance liabilities (note 41(b))	(6,415)	623
Change in reinsurance asset for insurance provisions (note 41(b))	169	451
Change in insurance liabilities, net of reinsurance	(6,246)	1,074
Change in investment contract provisions		
Investment income allocated to investment contracts	(6,128)	9,899
Other changes in provisions		
Participating investment contracts (note 44(c)(i))	540	2,684
Non-participating investment contracts	272	1,247
Change in reinsurance asset for investment contract provisions	(5)	7
Change in investment contract provisions	(5,321)	13,837
Change in unallocated divisible surplus (note 48)	(3,237)	(294)
Fee and commission expense		
Acquisition costs		
Commission expenses for insurance and participating investment contracts	2,678	2,776
Change in deferred acquisition costs for insurance and participating investment contracts	(183)	(182)
Deferrable costs for non-participating investment contracts	32	33
Other acquisition costs	996	958
Change in deferred acquisition costs for non-participating investment contracts	84	(206)
Investment (income)/expense attributable to unitholders	(704)	496
Reinsurance commissions and other fee and commission expense	490	454
	3,393	4,329
Other expenses		
Other operating expenses		
Staff costs (note 11(b))	1,172	1,115
Central costs and sharesave schemes	216	184
Depreciation	40	35
Impairment of goodwill on subsidiaries (note 17(a))	13	2
Amortisation of acquired value of in-force business on insurance/investment contracts (note 18)	426	468
Amortisation of intangible assets (note 18)	209	186
Net impairment of acquired value of in-force business (note 18)	—	8
Impairment of intangible assets (note 18)	—	7
Integration and restructuring costs	—	141
Other expenses (see below)	1,729	1,335
Impairments		
Net impairment on loans	1	2
Net impairment on financial investments	—	—
Net impairment on receivables and other financial assets	9	4
Net impairment on non-financial assets	—	1
Other net foreign exchange losses	28	49
Other expenses	3,843	3,537
Finance costs (note 8)	573	683
Total expenses	16,147	47,279

Other types of expenses were £1,729 million (2017: £1,335 million) which mainly included costs relating to property, IT and other items. Other items included a provision release of £78 million relating to the sale of Aviva USA in 2013, a gain of £36 million relating to negative goodwill on the acquisition of Friends First, a charge of £63 million relating to the UK defined benefit pension scheme as a result of the requirement to equalise members' benefits for the effects of Guaranteed Minimum Pension and a charge of £10 million relating to goodwill payments to preference shareholders, which was announced on 30 April 2018, and associated administration costs (see note 35).

The change in insurance liabilities line includes a gain of £190 million relating to the movement in the discount rate used for estimating lump sum payments in settlement of bodily injury claims (see note 43(b)).

8 – Finance costs

This note analyses the interest costs on our borrowings (which are described in note 52) and similar charges. Finance costs comprise:

	2018 £m	2017 £m
Interest expense on core structural borrowings		
Subordinated debt	364	391
Long term senior debt	6	4
Commercial paper	(2)	(2)
	368	393
Interest expense on operational borrowings		
Amounts owed to financial institutions	20	34
Securitised mortgage loan notes at fair value	95	83
	115	117
Interest on collateral received	8	9
Net finance charge on pension schemes (note 51(b)(i))	22	24
Unwind of discount on GI reserves	—	2
Extinguishment of debt	—	47
Other similar charges	60	91
Total finance costs	573	683

9 – Life business investment variances and economic assumption changes

The long-term nature of much of the Group's operations means that, for management's decision-making and internal performance management, the effects of short-term economic volatility are treated as adjusting items. The Group focuses instead on a Group adjusted operating profit measure that incorporates an expected return on investments supporting its life business, as described below.

(a) Definitions

Group adjusted operating profit for life business is based on expected investment returns on financial investments backing shareholder and policyholder funds over the reporting period, with consistent allowance for the corresponding expected movements in liabilities. Group adjusted operating profit includes the effect of variance in experience for non-economic items, such as mortality, persistency and expenses, and the effect of changes in non-economic assumptions, where not treated as other items. Changes due to economic items, such as market value movements and interest rate changes, which give rise to variances between actual and expected investment returns, and the impact of changes in economic assumptions on liabilities, are disclosed separately outside Group adjusted operating profit.

(b) Economic volatility

The investment variances and economic assumption changes excluded from Group adjusted operating profit for life businesses are as follows:

	2018 £m	2017 £m
Life business		
Investment variances and economic assumptions	(197)	34

Investment variances and economic assumption changes were £197 million negative (2017: £34 million positive), primarily due to negative variances in the UK and Italy. In the UK, these variances were mainly due to an increase in yields, the widening of corporate bond spreads and an increase in the allowance for the possible adverse impact of the decision for the UK to leave the European Union, partially offset by the beneficial impact of our equity hedges. The negative variance in Italy was primarily driven by a widening of sovereign credit spreads and a fall in equity markets.

The Group has kept under review the allowance in our long-term assumptions for future property prices and rental income for the possible adverse impact of the decision for the UK to leave the European Union. This allowance has been determined in line with previous periods and is £395 million as at 31 December 2018, an increase of £109 million from 31 December 2017.

The variance in 2017 was driven by positive variances in the UK, partially offset by negative variances in France. Positive variances in the UK were mainly due to economic modelling developments implemented in 2017. These included developments to align the approach to calculating valuation interest rates across the heritage Aviva and Friends Life portfolios and also a development to the approach to calculating the valuation interest rate for certain deferred annuity business. The negative variance in France was primarily due to an increase in life annuity pension reserves, resulting from a reduction to the discount rate cap used in the calculation of these reserves.

9 – Life business investment variances and economic assumption changes continued

(c) Methodology

The expected investment returns and corresponding expected movements in life business liabilities are calculated separately for each principal life business unit.

The expected return on investments for both policyholders' and shareholders' funds is based on opening economic assumptions applied to the expected funds under management over the reporting period. Expected investment return assumptions are derived actively, based on market yields on risk-free fixed interest assets at the end of each financial year. The same margins are applied on a consistent basis across the Group to gross risk-free yields, to obtain investment return assumptions for equity and property. Expected funds under management are equal to the opening value of funds under management, adjusted for sales and purchases during the period arising from expected operating experience.

The actual investment return is affected by differences between the actual and expected funds under management and changes in asset mix, as well as movements in interest rates. To the extent that these differences arise from the operating experience of the life business, or management decisions to change asset mix, the effect is included in the Group adjusted operating profit. The residual difference between actual and expected investment return is included in investment variances, outside Group adjusted operating profit but included in profit before tax.

The movement in liabilities included in Group adjusted operating profit reflects both the change in liabilities due to the expected return on investments and the impact of experience variances and assumption changes for non-economic items. This would include movements in liabilities due to changes in the discount rate arising from discretionary management decisions that impact on product profitability over the lifetime of products.

The effect of differences between actual and expected economic experience on liabilities, and changes to economic assumptions used to value liabilities, are taken outside Group adjusted operating profit. For many types of life business, including unit-linked and with-profits funds, movements in asset values are offset by corresponding changes in liabilities, limiting the net impact on profit. The profit impact of economic volatility on other life business depends on the degree of matching of assets and liabilities, and exposure to financial options and guarantees.

(d) Assumptions

The expected rate of investment return is determined using consistent assumptions between operations, having regard to local economic and market forecasts of investment return and asset classification under IFRS.

The principal assumptions underlying the calculation of the expected investment return for equity and property are:

	Equity		Property	
	2018 %	2017 %	2018 %	2017 %
United Kingdom	4.8	4.8	3.3	3.3
Eurozone	4.4	4.2	2.9	2.7

The expected return on equity and property has been calculated by reference to the ten year mid-price swap rate for an AA-rated bank in the relevant currency plus a risk premium. The use of risk premium reflects management's long-term expectations of asset return in excess of the swap yield from investing in different asset classes. The asset risk premiums are set out in the table below:

	2018 %	2017 %
All territories		
Equity risk premium	3.5	3.5
Property risk premium	2.0	2.0

The ten year mid-price swap rates as at the start of the period are set out in the table below:

Territories	2018 %	2017 %
United Kingdom	1.3	1.3
Eurozone	0.9	0.7

For fixed interest securities classified as fair value through profit or loss, the expected investment returns are based on average prospective yields for the actual assets held less an adjustment for credit risk (assessed on a best estimate basis); this includes an adjustment for credit risk on all eurozone sovereign debt. Where such securities are classified as held for sale, the expected investment return comprises the expected interest or dividend payments and amortisation of the premium or discount at purchase.

10 – Non-life business: short-term fluctuations in return on investments

Group adjusted operating profit for non-life business is based on an expected long-term investment return over the period. Any variance between the total investment return (including realised and unrealised gains) and the expected return over the period is disclosed separately outside Group adjusted operating profit, in short-term fluctuations. The long-term investment return and economic assumption changes for our non-life business is described in more detail below.

(a) The short-term fluctuations in investment return and economic assumption changes attributable to the non-life business result and reported outside operating profit were as follows:

Non-life business	2018 £m	2017 £m
Short-term fluctuations in investment return (see (b) below)	(476)	(345)
Economic assumption changes (see (g) below)	1	(7)
	(475)	(352)

(b) The long-term investment return and short-term fluctuation are as follows:

Non-life business	2018 £m	2017 £m
Analysis of investment income:		
Net investment (expenses)/income	(88)	49
Foreign exchange losses and other charges	(8)	(24)
	(96)	25
Analysed between:		
Long-term investment return, reported within operating profit	380	370
Short-term fluctuation in investment return, reported outside operating profit		
General insurance and health	(315)	(57)
Other operations ¹	(161)	(288)
	(476)	(345)
	(96)	25

¹ Represents short-term fluctuations on assets backing non-life business in Group centre investments, including the centre hedging programme and Group external borrowings.

(c) The long-term investment return is calculated separately for each principal non-life market. In respect of equities and investment properties, the return is calculated by multiplying the opening market value of the investments, adjusted for sales and purchases during the year, by the long-term rate of investment return.

The long-term rate of investment return is determined using consistent assumptions between operations, having regard to local economic and market forecasts of investment return. The allocated long-term return for other investments (including debt securities) is the actual income receivable for the year. Actual income and long-term investment return both contain the amortisation of the discounts/premium arising on the acquisition of fixed income securities. For other operations, the long-term return reflects assets backing non-life business held in Group centre investments.

Market value movements which give rise to variances between actual and long-term investment returns are disclosed separately in short-term fluctuations outside operating profit.

The impact of realised and unrealised gains and losses on Group centre investments, including the centre hedging programme which is designed to economically protect the total Group's capital against adverse equity and foreign exchange movements, is included in short-term fluctuations on other operations.

The short-term fluctuation of a £476 million loss during 2018 was primarily due to adverse market conditions across most of our major markets. This resulted in losses on fixed interest income securities driven by interest rate increases and widening credit spreads plus significant falls in equities and other adverse market movements on Group centre holdings.

10 – Non-life business: short-term fluctuations in return on investments continued

(d) The total assets supporting the general insurance and health business, which contribute towards the long-term return, are:

	2018 £m	2017 £m
Debt securities	9,271	10,054
Equity securities	866	772
Investment properties	584	499
Cash and cash equivalents	1,294	1,115
Other ¹	2,349	2,498
Assets supporting general insurance and health business	14,364	14,938
Assets supporting other non-life business ²	812	685
Total assets supporting non-life business	15,176	15,623

¹ Includes the internal loan to Group from UK Insurance.

² Represents assets backing non-life business in Group centre investments, including the centre hedging programme.

The principal assumptions underlying the calculation of the long-term investment return are:

	Long-term rates of return Equities		Long-term rates of return Investment properties	
	2018 %	2017 %	2018 %	2017 %
United Kingdom	4.8	4.8	3.3	3.3
Eurozone	4.4	4.2	2.9	2.7
Canada	5.9	5.5	4.4	4.0

The long-term rates of return on equities and investment properties have been calculated by reference to the ten-year mid-price swap rate for an AA-rated bank in the relevant currency plus a risk premium. The underlying reference rates and risk premiums for the United Kingdom and Eurozone are shown in note 9.

(e) The table below compares the actual return on investments attributable to the non-life business, after deducting investment management expenses and charges, with the aggregate long-term return over a five-year period.

	2014-2018 £m	2013-2017 £m
Actual return attributable to shareholders	821	1,148
Long-term return credited to operating results	(1,983)	(2,170)
Excess of actual returns over long-term returns	(1,162)	(1,022)

Management continues to view the excess of actual returns over long-term returns as short-term fluctuations. The principal assumptions underlying the calculation of the long-term investment returns are reviewed on a regular basis, having regard to local economic and market forecasts, and are considered appropriate for the purpose of decision making and internal performance management by the Group chief operating decision maker.

(f) The table below shows the sensitivity of the Group's adjusted non-life business Group adjusted operating profit before tax to changes in the long-term rates of return:

Movement in investment return for	By	Change in	2018 £m	2017 £m
Equities	1% higher/lower	Group adjusted operating profit before tax	8	3
Investment properties	1% higher/lower	Group adjusted operating profit before tax	5	3

(g) The economic assumption changes of £1 million (2017: £7 million adverse) arise as a result of a slight increases in interest rates used to value claims reserves for periodic payment orders (PPOs) and latent claims.

As explained in accounting policy L, provisions for latent claims are discounted, using rates based on the relevant swap curve, in the relevant currency at the reporting date, having regard to the duration of the expected settlement of the claims. The discount rate is set at the start of the accounting period, with any change in rates between the start and end of the accounting period being reflected below Group adjusted operating profit as an economic assumption change. The range of discount rates used is disclosed in note 42.

11 – Employee information

This note shows where our staff are employed throughout the world, excluding staff employed by our joint ventures and associates, and analyses the total staff costs.

(a) Employee numbers

The number of persons employed by the Group, including directors under a service contract, was:

	At 31 December		Average for the year ¹	
	2018 Number	2017 Number ²	2018 Number	2017 Number ²
United Kingdom	15,746	14,639	15,414	14,785
Canada	4,334	4,336	4,330	4,320
France	3,928	3,959	3,911	3,962
Poland	1,708	1,718	1,716	1,715
Italy, Ireland, Spain and Other	1,950	1,687	1,864	1,723
Asia	1,832	1,789	1,817	1,729
Aviva Investors	1,471	1,437	1,460	1,350
Other Group activities	734	764	720	748
Total employee numbers	31,703	30,329	31,232	30,332

1 Average employee numbers have been calculated using a monthly average that takes into account recruitment, leavers, transfers, acquisitions and disposals of businesses during the year.

2 Following a review of employee numbers, comparative amounts have been amended from those previously reported. The effect of this change is to increase the number of employees in Canada by 77, Asia by 231 and in Total by 308, and to increase the average number of employees in Canada by 78, Asia by 164 and in Total by 242.

(b) Staff costs

	2018 £m	2017 £m
Wages and salaries	1,260	1,241
Social security costs	233	224
Post-retirement obligations		
Defined benefit schemes (note 51(d))	23	23
Defined contribution schemes (note 51(d))	163	146
Profit sharing and incentive plans	221	208
Equity compensation plans (note 33(d))	64	77
Termination benefits	10	23
Total staff costs	1,974	1,942

Staff costs are charged within:

	2018 £m	2017 £m
Acquisition costs	565	526
Claims handling expenses	161	164
Central costs and sharesave schemes	76	100
Other operating expenses (note 7)	1,172	1,115
Integration and restructuring costs	—	37
Total staff costs	1,974	1,942

12 – Directors

Information concerning individual directors' emoluments, interests and transactions is given in the Directors' Remuneration Report in the 'Corporate governance' section of this report. For the purposes of the disclosure required by Schedule 5 to the Companies Act 2006, the total aggregate emoluments of the directors in respect of 2018 was £10 million (2017: £12 million). Employer contributions to pensions for executive directors for qualifying periods were £165,373 (2017: £50,336). The aggregate net value of share awards granted to the directors in the period was £10.2 million (2017: £10.6 million). The net value has been calculated by reference to the closing middle market price of an ordinary share at the date of grant. During the year, no share options were exercised by directors (2017: no share options).

13 – Auditors' remuneration

This note shows the total remuneration payable by the Group, excluding VAT and any overseas equivalent thereof, to our auditors.

	2018 £m	2017 £m
Fees payable to PwC LLP and its associates for the statutory audit of the Aviva Group and Company financial statements	1.9	2.6
Fees payable to PwC LLP and its associates for other services		
Audit of Group subsidiaries	13.4	14.1
Additional fees related to the prior year audit of Group subsidiaries	0.4	0.9
Total audit fees	15.7	17.6
Audit related assurance	4.7	4.7
Other assurance services	0.9	2.2
Total audit and assurance fees	21.3	24.5
Tax compliance services	—	—
Tax advisory services	—	—
Services relating to corporate finance transactions	—	—
Other non-audit services not covered above	1.0	0.8
Fees payable to PwC LLP and its associates for services to Group companies	22.3	25.3
Fees payable to BDO LLP and its associates for the statutory audit of Group subsidiaries in Poland	0.2	—
Fees payable to PwC LLP, BDO LLP and their associates for services to Group companies	22.5	25.3
Fees payable to PwC LLP and its associates for Group occupational pensions scheme audits	0.3	0.3

The table above reflects the disclosure requirements of SI2011/2198 – The Companies (Disclosure of Auditor Remuneration and Liability Limitation Agreements) (Amendment) Regulations 2011.

Fees payable for the audit of the Group's subsidiaries include fees for the statutory audit of the subsidiaries, both inside and outside the UK, and for the work performed by the principal auditors in respect of the subsidiaries for the purpose of the consolidated financial statements of the Group.

Audit related assurance comprises services in relation to statutory and regulatory filings. These include fees for the audit of the Group's Solvency II regulatory returns for 2018, services for the audit of other regulatory returns of the Group's subsidiaries and review of interim financial information under the Listing Rules of the UK Listing Authority. Total audit fees (excluding additional fees relating to the prior year audits of Group subsidiaries) and audit-related assurance fees were £20.0 million (2017: £21.5 million).

Other assurance services in 2018 of £0.9 million (2017: £2.2 million) mainly include fees relating to the independent review of the Solvency II internal model that the Company believes is most appropriately performed by the principal auditors.

The 2018 fees for other non-audit services of £1.0 million include a number of individually smaller services.

Details of the Group's process for safeguarding and supporting the independence and objectivity of the external auditors are given in the Audit Committee report.

14 – Tax

This note analyses the tax charge for the year and explains the factors that affect it.

(a) Tax (credited)/charged to the income statement

(i) The total tax (credit)/charge comprises:

	2018 £m	2017 £m
Current tax		
For the period	559	651
Prior period adjustments	(49)	(46)
Total current tax	510	605
Deferred tax		
Origination and reversal of temporary differences	(531)	134
Changes in tax rates or tax laws	(13)	(8)
Write (back) of deferred tax assets	(1)	(3)
Total deferred tax	(545)	123
Total tax (credited)/charged to income statement	(35)	728

(ii) The Group, as a proxy for policyholders in the UK, Ireland and Singapore, is required to record taxes on investment income and gains each year. Accordingly, the tax benefit or expense attributable to UK, Ireland and Singapore life insurance policyholder returns is included in the tax charge. The tax credit attributable to policyholder returns included in the credit above is £477 million (2017: charge of £371 million).

(iii) The tax credit above, comprising current and deferred tax, can be analysed as follows:

	2018 £m	2017 £m
UK tax	(236)	528
Overseas tax	201	200
	(35)	728

(iv) Unrecognised tax losses and temporary differences of previous years were used to reduce the current tax expense and deferred tax credit by £nil million and £nil million (2017: £13 million and £nil million), respectively.

(v) Deferred tax (credited)/charged to the income statement represents movements on the following items:

	2018 £m	2017 £m
Long-term business technical provisions and other insurance items	907	37
Deferred acquisition costs	3	(2)
Unrealised (losses) on investments	(1,453)	(33)
Pensions and other post-retirement obligations	2	19
Unused losses and tax credits	7	19
Subsidiaries, associates and joint ventures	(7)	(4)
Intangibles and additional value of in-force long-term business	(64)	(85)
Provisions and other temporary differences	60	172
Total deferred tax (credited)/charged to income statement	(545)	123

(b) Tax (credited)/charged to other comprehensive income

(i) The total tax (credit)/charge comprises:

	2018 £m	2017 £m
Current tax		
In respect of pensions and other post-retirement obligations	(59)	(45)
In respect of foreign exchange movements	(1)	4
	(60)	(41)
Deferred tax		
In respect of pensions and other post-retirement obligations	16	42
In respect of fair value (losses) on owner-occupied properties	—	(2)
In respect of unrealised (losses) on investments	(7)	(9)
	9	31
Total tax (credited) to other comprehensive income	(51)	(10)

(ii) The tax charge attributable to policyholders' returns included above is £nil (2017: £nil).

14 – Tax continued**(c) Tax credited to equity**

Tax credited directly to equity in the year in respect of coupon payments on the direct capital instrument and tier 1 notes amounted to £8 million (2017: £16 million).

(d) Tax reconciliation

The tax on the Group's profit before tax differs from the theoretical amount that would arise using the tax rate of the home country of the Company as follows:

	Shareholder £m	Policyholder £m	2018 £m	Shareholder £m	Policyholder £m	2017 £m
Total profit before tax	2,129	(477)	1,652	2,003	371	2,374
Tax calculated at standard UK corporation tax rate of 19.00% (2017: 19.25%)	405	(91)	314	386	71	457
Reconciling items						
Different basis of tax – policyholders	—	(385)	(385)	—	301	301
Adjustment to tax charge in respect of prior periods	(16)	—	(16)	(44)	—	(44)
Non-assessable income and items not taxed at the full statutory rate	(4)	—	(4)	(47)	—	(47)
Non-taxable profit on sale of subsidiaries and associates	(59)	—	(59)	(27)	—	(27)
Disallowable expenses	50	—	50	47	—	47
Different local basis of tax on overseas profits	71	(1)	70	82	(1)	81
Change in future local statutory tax rates	—	—	—	(36)	—	(36)
Movement in deferred tax not recognised	(3)	—	(3)	(3)	—	(3)
Tax effect of profit from joint ventures and associates	(6)	—	(6)	(3)	—	(3)
Other	4	—	4	2	—	2
Total tax (credited)/charged to income statement	442	(477)	(35)	357	371	728

The tax (credit)/charge attributable to policyholder returns is removed from the Group's total profit before tax in arriving at the Group's profit before tax attributable to shareholders' profits. As the net of tax profits attributable to with-profits and unit-linked policyholders is zero, the Group's pre-tax profit attributable to policyholders is an amount equal and opposite to the tax charge/(credit) attributable to policyholders included in the total tax charge.

Finance Act 2016 introduced legislation reducing the UK corporation tax rate from 1 April 2020 to 17%. In addition, in France the rate of corporation tax was reduced from 34.43% to 32.02% from 1 January 2019, to 27.37% from 1 January 2021 and 25.83% from 1 January 2022. These reduced rates were used in the calculation of the Group's deferred tax assets and liabilities as at 31 December 2018 and 31 December 2017.

15 – Earnings per share

This note shows how to calculate earnings per share on profit attributable to ordinary shareholders, based both on the present shares in issue (the basic earnings per share) and the potential future shares in issue, including conversion of share options granted to employees (the diluted earnings per share). We have also shown the same calculations based on our Group adjusted operating profit as we believe this gives an important indication of operating performance. Consideration of both these measures gives a full picture of the performance of the business in the period.

(a) Basic earnings per share

(i) The profit attributable to ordinary shareholders is:

	2018			2017		
	Group adjusted operating profit £m	Adjusting items £m	Total £m	Group adjusted operating profit £m	Adjusting items £m	Total £m
Profit before tax attributable to shareholders' profits	3,116	(987)	2,129	3,068	(1,065)	2,003
Tax attributable to shareholders' profit	(647)	205	(442)	(639)	282	(357)
Profit for the year	2,469	(782)	1,687	2,429	(783)	1,646
Amount attributable to non-controlling interests	(100)	(19)	(119)	(134)	(15)	(149)
Cumulative preference dividends for the year	(17)	—	(17)	(17)	—	(17)
Coupon payments in respect of the direct capital instrument (DCI) and tier 1 notes (net of tax)	(36)	—	(36)	(65)	—	(65)
Profit attributable to ordinary shareholders	2,316	(801)	1,515	2,213	(798)	1,415

(ii) Basic earnings per share is calculated as follows:

	2018			2017		
	Before tax £m	Net of tax, NCI, preference dividends and DCI ¹ £m	Per share p	Before tax £m	Net of tax, NCI, preference dividends and DCI ¹ £m	Per share p
Group adjusted operating profit attributable to ordinary shareholders	3,116	2,316	58.4	3,068	2,213	54.8
Integration and restructuring costs	—	—	—	(141)	(111)	(2.8)
Group adjusted operating profit attributable to ordinary shareholders after integration and restructuring costs	3,116	2,316	58.4	2,927	2,102	52.0
Adjusting items:						
Investment variances and economic assumption changes	(197)	(198)	(5.0)	34	86	2.1
Non-life business: Short-term fluctuation in return on investments	(476)	(378)	(9.6)	(345)	(250)	(6.3)
General insurance and health business: Economic assumption changes	1	(1)	—	(7)	(6)	(0.1)
Impairment of goodwill, joint ventures, associates and other amounts expensed	(13)	(13)	(0.3)	(49)	(49)	(1.2)
Amortisation and impairment of intangibles	(209)	(172)	(4.3)	(197)	(151)	(3.7)
Amortisation and impairment of acquired value of in-force business	(426)	(371)	(9.4)	(495)	(430)	(10.6)
Profit on disposal and remeasurement of subsidiaries, joint ventures and associates	102	102	2.6	135	113	2.8
Other ²	231	230	5.8	—	—	—
Profit attributable to ordinary shareholders	2,129	1,515	38.2	2,003	1,415	35.0

¹ DCI includes the direct capital instrument and tier 1 notes.

² Other includes a movement in the discount rate used for estimating lump sum payments in the settlement of bodily injury claims which resulted in a gain of £190 million (see note 43(b)), a provision release of £78 million relating to the sale of Aviva USA in 2013, a gain of £36 million relating to negative goodwill on the acquisition of Friends First (see note 3), a charge of £63 million relating to the UK defined benefit pension scheme as a result of the requirement to equalise members' benefits for the effects of Guaranteed Minimum Pension (see note 51(b)) and a charge of £10 million relating to goodwill payments to preference shareholders, which was announced on 30 April 2018, and associated administration costs (see note 35).

(iii) The calculation of basic earnings per share uses a weighted average of 3,963 million (2017: 4,041 million) ordinary shares in issue, after deducting treasury shares. The actual number of shares in issue at 31 December 2018 was 3,902 million (2017: 4,013 million) and 3,899 million (2017: 4,010 million) excluding treasury shares.

(iv) On 1 May 2018 Aviva announced a share buy-back of ordinary shares for an aggregate purchase price of up to £600 million (2017: £300 million), which was carried out in full during the period from 1 May 2018 to 17 September 2018. The number of shares in issue has reduced by 119 million as at 31 December 2018 in respect of shares acquired and cancelled under the buy-back programme. Net of new shares issued during the period, the number of shares in issue reduced by 110 million (2017: 49 million).

15 – Earnings per share continued

(b) Diluted earnings per share

(i) Diluted earnings per share is calculated as follows:

	2018			2017		
	Total £m	Weighted average number of shares million	Per share p	Total £m	Weighted average number of shares million	Per share p
Profit attributable to ordinary shareholders	1,515	3,963	38.2	1,415	4,041	35.0
Dilutive effect of share awards and options	—	47	(0.4)	—	48	(0.4)
Diluted earnings per share	1,515	4,010	37.8	1,415	4,089	34.6

(ii) Diluted earnings per share on Group adjusted operating profit attributable to ordinary shareholders is calculated as follows:

	2018			2017		
	Total £m	Weighted average number of shares million	Per share p	Total £m	Weighted average number of shares million	Per share p
Group adjusted operating profit attributable to ordinary shareholders	2,316	3,963	58.4	2,213	4,041	54.8
Dilutive effect of share awards and options	—	47	(0.6)	—	48	(0.7)
Diluted group adjusted operating profit per share	2,316	4,010	57.8	2,213	4,089	54.1

16 – Dividends and appropriations

This note analyses the total dividends and other appropriations paid during the year. The table below does not include the final dividend proposed after the year end because it is not accrued in these financial statements.

	2018 £m	2017 £m
Ordinary dividends declared and charged to equity in the year		
Final 2017 – 19.00 pence per share, paid on 17 May 2018	764	—
Final 2016 – 15.88 pence per share, paid on 17 May 2017	—	646
Interim 2018 – 9.25 pence per share, paid on 24 September 2018	364	—
Interim 2017 – 8.40 pence per share, paid on 17 November 2017	—	337
	1,128	983
Preference dividends declared and charged to equity in the year	17	17
Coupon payments on DCI and tier 1 notes	44	81
	1,189	1,081

Subsequent to 31 December 2018, the directors proposed a final dividend for 2018 of 20.75 pence per ordinary share (2017: 19.00 pence), amounting to £810 million (2017: £764 million) in total. Subject to approval by shareholders at the AGM, the dividend will be paid on 30 May 2019 and will be accounted for as an appropriation of retained earnings in the year ending 31 December 2019.

Interest on the direct capital instrument and tier 1 notes is treated as an appropriation of retained profits and, accordingly, is accounted for when paid. Tax relief is obtained at a rate of 19% (2017: 19.25%).

17 – Goodwill

This note analyses the changes to the carrying amount of goodwill during the year, and details the results of our impairment testing on both goodwill and intangible assets with indefinite lives.

(a) Carrying amount

	2018 £m	2017 £m
Gross amount		
At 1 January	2,080	2,292
Acquisitions and additions	8	11
Disposals	(99)	(241)
Foreign exchange rate movements	2	18
At 31 December	1,991	2,080
Accumulated impairment		
At 1 January	(168)	(247)
Impairment charges	(13)	(10)
Disposals	63	96
Foreign exchange rate movements	(1)	(7)
At 31 December	(119)	(168)
Carrying amount at 1 January	1,912	2,045
Carrying amount at 31 December	1,872	1,912
Less: Assets classified as held for sale	—	(36)
Carrying amount at 31 December	1,872	1,876

Goodwill from acquisitions and additions in 2018 arose from the acquisition of Wealthify. Goodwill from acquisitions and additions in 2017 arose on the acquisition of VietinBank's 50% shareholding in VietinBank Aviva Life Insurance Company Limited (Aviva Vietnam) which resulted in Aviva Vietnam becoming a wholly owned subsidiary of the Group. Negative goodwill of £36 million arose from the purchase of Friends First and was recognised immediately in the income statement (see note 3).

Disposals in 2018 include the disposal of the Italy Avipop business as well as the remainder of the business in Spain (see note 4).

The total impairment of goodwill in 2018 is a charge of £13 million comprised of impairments of goodwill relating to business in the UK, Asia and Poland. The total impairment of goodwill in 2017 was a charge of £10 million relating to business in Canada and the held for sale adjustments for Friends Provident International Limited (FPI). Impairment tests on goodwill were conducted as described in note 17(b) below.

(b) Goodwill allocation and impairment testing

A summary of the goodwill and intangibles with indefinite useful lives allocated to groups of cash generating units is presented below.

	Carrying amount of goodwill		Carrying amount of intangibles with indefinite useful lives (detailed in note 18)		Total	
	2018 £m	2017 £m	2018 £m	2017 £m	2018 £m	2017 £m
United Kingdom – long-term business	663	663	—	—	663	663
United Kingdom – general insurance and health	924	924	—	—	924	924
Canada	82	84	—	—	82	84
France – long-term business	—	—	56	55	56	55
Poland	27	29	7	7	34	36
Italy – general insurance and health	26	29	—	—	26	29
Italy – long-term business	—	8	—	—	—	8
Ireland – general insurance and health	99	98	—	—	99	98
Spain – long-term business	—	25	—	190	—	215
Asia	51	52	—	—	51	52
	1,872	1,912	63	252	1,935	2,164

Goodwill in all business units is tested for impairment by comparing the carrying value of the cash generating unit to which the goodwill relates, to the recoverable value of that cash generating unit. The recoverable amount is the value in use of the cash generating unit unless otherwise stated. The classification of FPI in Asia remains as held for sale (see note 4(c)). The Group measured the recoverable amount of FPI at the estimated fair value less costs to sell.

Long-term business

Value in use has been calculated based on a shareholder value of the business calculated in accordance with Solvency II principles, adjusted where Solvency II does not represent a best estimate of shareholders' interests. The principal adjustments relate to the exclusion of the benefit of transitional measures on technical provisions and the volatility adjustment under Solvency II, modification of the Solvency II risk margin to an economic view and removal of restrictions on contract boundaries or business scope.

17 – Goodwill continued

The present value of expected profits arising from future new business may be included within the shareholder value and is calculated on an adjusted Solvency II basis, using profit projections based on the most recent three year business plans approved by management. These plans reflect management's best estimate of future profits based on both historical experience and expected growth rates for the relevant cash generating unit. The underlying assumptions of these projections include market share, customer numbers, mortality, morbidity and persistency.

Future new business profits beyond the initial three years are extrapolated using a steady growth rate. Growth rates and expected future profits are set with regards to management estimates, past experience and relevant available market statistics.

Expected profits from future new business are discounted using a risk adjusted discount rate. The discount rate is a combination of a risk-free rate and a risk margin to make prudent allowance for the risk that experience in future years for new business may differ from that assumed.

Key assumptions

The Solvency II non-economic assumptions in relation to mortality, morbidity, persistency and expenses and other items are derived actively, based on management's best estimate assumptions. Economic assumptions are based on market data as at the end of each reporting period. The basic risk-free rate curves used to value the technical provisions reflect the curves, credit risk adjustment and fundamental spread for the matching adjustment published by EIOPA on their website. For the purposes of calculating value in use, the Solvency II risk margin has been modified to an economic view, with a cost of capital rate of 2%.

For the goodwill in the UK Life long-term business that arose on the Friends Life acquisition, the value of the business was sufficient to demonstrate goodwill recoverability on its own. As such it was not necessary to estimate the present value of expected profits from future new business.

General insurance, health, fund management and other businesses

Value in use is calculated as the discounted value of expected future profits of each business. The calculation uses cash flow projections based on business plans approved by management covering a three year period. These plans reflect management's best estimate of future profits based on both historical experience and expected growth rates for the relevant cash generating unit. The underlying assumptions of these projections include market share, customer numbers, premium rate and fee income changes, claims inflation and commission rates.

Cash flows beyond that three year period are extrapolated using a steady growth rate. Growth rates and expected future profits are set with regards to past experience and relevant available market statistics.

Future profits are discounted using a risk adjusted discount rate.

Key assumptions

	Extrapolated future profits growth rate		Future profits discount rate	
	2018 %	2017 %	2018 (Pre-tax) %	2017 (Pre-tax) %
United Kingdom general insurance and health	1	1	6.3	5.8
Ireland general insurance and health	Nil	Nil	6.9	6.2
Italy general insurance and health	Nil	1	12.5	11.2
Canada general insurance	4	4	7.8	7.0

Indefinite life intangible asset

France

The recoverable amount of the indefinite life intangible asset has been assessed based on the fair value less costs to sell of the cash generating unit to which it relates. The fair value less costs to sell was determined based on the quoted market value of Aviva's share of the subsidiary to which it relates.

Results of impairment testing

As a result of the announced sale of the Group's entire shareholding in FPI, the recoverable amount of FPI within the wider Asian cash generating unit was determined based on the agreed consideration less costs to sell. This indicated an impairment of goodwill and AVIF related to non-participating investment contracts of £8 million and £110 million respectively in 2017 (see note 18) as a result of the shortfall of £118 million between FPI's carrying amount and its fair value less costs to sell of £334 million. The estimate of fair value less costs to sell was calculated on the basis of the agreed sales consideration of £340 million (see note 4(c)(i)) after deducting a £6 million reinsurance recapture fee between FPI and Aviva Re Limited which is embedded in the sale agreement. The FPI goodwill balance is fully written down, however, there has been a further impairment of £13 million to AVIF in 2018 (see note 18).

Review of a UK business within the other Group activities operating segment identified the need to impair a balance of £8 million of goodwill due to the current and forecast performance of the related cash generating unit being below the original financial plan.

Management's impairment review in relation to the goodwill allocated to the Asian operating segment indicated the need to write down a balance of £3 million as a result of the current and forecast financial performance of the related cash generating units.

A further impairment of £2 million was identified to the goodwill allocated to the Polish business due to the deterioration of the financial position and forecast financial performance of one of the cash generating units.

Other than for the cash generating units noted above, the recoverable amount exceeds the carrying value of the cash generating units including goodwill, and there is no further impairment of goodwill in 2018.

18 – Acquired value of in-force business (AVIF) and intangible assets

This note shows the movements in cost, amortisation and impairment of the acquired value of in-force business and intangible assets during the year.

	AVIF on insurance contracts ¹ (a) £m	AVIF on investment contracts ² (a) £m	Other intangible assets with finite useful lives (b) £m	Intangible assets with indefinite useful lives (c) £m	Total £m
Gross amount					
At 1 January 2017	2,639	2,704	1,976	367	7,686
Additions and transfers	8	—	184	—	192
Disposals	(40)	(7)	(208)	—	(255)
Foreign exchange rate movements	13	—	14	13	40
At 31 December 2017	2,620	2,697	1,966	380	7,663
Additions and transfers	67	30	153	(57)	193
Disposals	—	—	(488)	(189)	(677)
Foreign exchange rate movements	5	(1)	(8)	—	(4)
At 31 December 2018	2,692	2,726	1,623	134	7,175
Accumulated amortisation					
At 1 January 2017	(870)	(583)	(504)	(57)	(2,014)
Amortisation for the year	(206)	(262)	(186)	—	(654)
Disposals and transfers	28	7	146	—	181
Foreign exchange rate movements	(12)	—	—	—	(12)
At 31 December 2017	(1,060)	(838)	(544)	(57)	(2,499)
Amortisation for the year	(183)	(243)	(209)	—	(635)
Disposals and transfers	—	—	48	57	105
Foreign exchange rate movements	(4)	—	2	—	(2)
At 31 December 2018	(1,247)	(1,081)	(703)	—	(3,031)
Accumulated impairment					
At 1 January 2017	(19)	(24)	(81)	(68)	(192)
Impairment losses charged to expenses	(8)	(110)	(7)	—	(125)
Disposals	—	—	43	—	43
Foreign exchange rate movements	—	—	(1)	(3)	(4)
At 31 December 2017	(27)	(134)	(46)	(71)	(278)
Impairment charges ³	—	(13)	—	—	(13)
Disposals	—	—	8	—	8
Foreign exchange rate movements	—	—	—	—	—
At 31 December 2018	(27)	(147)	(38)	(71)	(283)
Carrying amount					
At 1 January 2017	1,750	2,097	1,391	242	5,480
At 31 December 2017	1,533	1,725	1,376	252	4,886
At 31 December 2018	1,418	1,498	882	63	3,861
Less: Assets classified as held for sale	(5)	(649)	(6)	—	(660)
	1,413	849	876	63	3,201

1 On insurance and participating investment contracts.

2 On non-participating investment contracts.

3 Impairment charges comprise £13 million of AVIF impairment in respect of FPI recognised within profit/(loss) on the disposal and remeasurement of subsidiaries, joint ventures and associates due to FPI's classification as held for sale (see note 4 and 17(b)).

(a) Acquired value of in-force business

AVIF on insurance and investment contracts is generally recoverable in more than one year. Of the total AVIF of £2,916 million, £2,904 million (2017: £2,142 million) is expected to be recovered more than one year after the statement of financial position date. In 2018, the additions relate to the acquisition of Friends First (see note 3).

Non-participating investment contract AVIF is reviewed for evidence of impairment, consistent with reviews conducted for other finite life intangible assets. Insurance and participating investment contract AVIF is reviewed for impairment at each reporting date as part of the liability adequacy requirements of IFRS 4. AVIF is reviewed for evidence of impairment and impairment tested at product portfolio level by reference to the value of future profits in accordance with Solvency II principles, adjusted where Solvency II does not represent a best estimate of shareholders' interests, consistent with the impairment test for goodwill for long-term business (see note 17(b)).

In 2018, an impairment charge of £13 million (2017: £110 million) was recognised in relation to the AVIF on non-participating investment contracts relating to FPI, to write down the AVIF balance to its recoverable amount as explained in note 17(b). In addition, in 2017 £8 million of AVIF on insurance contracts in relation to the book of business reinsured by FPI to Aviva Re Limited was considered to be non-recoverable and was written-off.

18 – Acquired value of in-force business (AVIF) and intangible assets continued

(b) Other intangible assets with finite useful lives

Other intangible assets with finite useful lives consist mainly of the value of bancassurance and other distribution agreements and capitalised software. Additions of intangibles with finite lives in 2018 relate to capitalisation of software costs in relation to the Group's digital initiatives primarily undertaken by the Group's digital company Aviva UK Digital Limited.

Additions of intangibles with finite lives in 2017 related to capitalisation of software costs in relation to the Group's digital initiatives as well as additions of finite life intangibles on the Group balance sheet following the full consolidation of the Group's previously equity accounted joint ventures in Poland.

Disposals in 2018 relate to the sale of the Italy Avipop business (see note 4). Disposals in 2017 relate to the derecognition of intangible assets with finite useful lives in relation to the disposal of part of the Group's Spanish business.

The amortisation charge for 2018 is £209 million (2017: £186 million). No impairment losses arose in 2018 (2017: £7 million) on intangible assets with finite lives.

(c) Intangible assets with indefinite useful lives

Intangible assets with indefinite useful lives primarily comprise the value of distribution channel Union Financière de France Banque in France where the existing life of the asset supports this classification. Impairment testing of these intangible assets is covered in note 17(b). No impairment has been recognised in 2018.

Disposals in 2018 relate to the sale of the Spanish business (see note 4).

19 – Interests in, and loans to, joint ventures

In several businesses, Group companies and other parties jointly control certain entities. This note analyses these interests and describes the principal joint ventures in which we are involved.

(a) Carrying amount and details of joint ventures

(i) The movements in the carrying amount comprised:

	2018			2017		
	Goodwill and intangibles £m	Equity interests £m	Total £m	Goodwill and intangibles £m	Equity interests £m	Total £m
At 1 January	57	1,164	1,221	92	1,512	1,604
Share of results before tax	—	99	99	—	99	99
Share of tax	—	(3)	(3)	—	(3)	(3)
Share of results after tax	—	96	96	—	96	96
Amortisation of intangibles ¹	(5)	—	(5)	(7)	—	(7)
Loss on remeasurement of joint venture	—	—	—	—	(7)	(7)
Share of (loss)/profit after tax	(5)	96	91	(7)	89	82
Reclassification from/(to) subsidiary	—	5	5	(23)	(34)	(57)
Additions	—	33	33	—	55	55
Disposals	—	(79)	(79)	—	(409)	(409)
Share of (losses)/gains taken to other comprehensive income	—	(10)	(10)	—	6	6
Dividends received from joint ventures	—	(35)	(35)	—	(38)	(38)
Foreign exchange rate movements	(6)	(6)	(12)	(5)	(17)	(22)
At 31 December	46	1,168	1,214	57	1,164	1,221

¹ Comprises amortisation of AVIF on insurance contracts of £nil million (2017: £1 million) and other intangibles of £5 million (2017: £6 million).

Additions and disposals during the year relate mainly to the Group's holdings in property management undertakings. £20 million of the additions relate to a capital injection into the new Hong Kong JV as detailed below.

On 13 February 2018, Aviva announced that it has completed the transaction to develop a digital insurance joint venture in Hong Kong with Hillhouse Capital Group (Hillhouse) and Tencent Holdings Limited (Tencent). The joint venture commenced operating under its new corporate structure during the first half of 2018. The transaction included the sale of 60% of the shareholding in Aviva Life Insurance Company Limited (Aviva Hong Kong) as detailed in note 4(d). This is reflected as reclassification from subsidiary of £5 million and new capital addition of £20 million in 2018.

In 2017, reclassification to subsidiary reflects changes in the Group's holdings in its Poland and Vietnam undertakings.

On 19 January 2018, Aviva announced that it had completed the sale of its entire 49% shareholding in its joint venture in Taiwan, First Aviva Life (Aviva Taiwan) to Aviva's joint venture partner, First Financial Holding Company Limited (FFH) for cash consideration of \$1. The transaction resulted in a gain of £7 million arising from reserves recycled to the Income Statement. Remeasurement losses arising from the classification of Aviva Taiwan as held for sale were recognised in 2017, as explained in note 4(b)(iii).

The Group's share of total comprehensive income related to joint venture entities is £81 million (2017: £88 million).

19 – Interests in, and loans to, joint ventures continued

(ii) The carrying amount at 31 December comprised:

	2018			2017		
	Goodwill and intangibles £m	Equity interests £m	Total £m	Goodwill and intangibles £m	Equity interests £m	Total £m
Property management undertakings	—	797	797	—	820	820
Long-term business undertakings	46	363	409	57	335	392
General insurance and health undertakings	—	8	8	—	9	9
Total	46	1,168	1,214	57	1,164	1,221

The property management undertakings perform property ownership and management activities, and are incorporated and operate in the UK. All such investments are held by subsidiary entities.

The long-term business undertakings perform life insurance activities. All investments in such undertakings are unlisted with the exception of AvivaSA Emeklilik ve Hayat A.S which has issued publicly a minority portion of shares. All investments in such undertakings are held by subsidiaries, except for the shares in the Chinese joint venture, Aviva-COFCO Life Insurance Company Ltd., which are held by Aviva plc. The Group's share of net assets of that company is £294 million (2017: £274 million) and it has a carrying value at cost of £123 million (2017: £123 million).

The investment in general insurance and health undertakings relates to the health insurance operations in our Indonesian joint venture.

(iii) No joint ventures are considered to be material from a Group perspective (2017: none). The Group's principal joint ventures are as follows:

Name	Nature of activities	Principal place of business	Proportion of ownership interest	
			2018	2017
Ascot Real Estate Investments LP	Property management	UK	50.00%	50.00%
2-10 Mortimer Street Limited Partnership	Property management	UK	50.00%	50.00%
Southgate LP	Property management	UK	50.00%	50.00%
Aviva-COFCO Life Insurance Company Ltd.	Life insurance	China	50.00%	50.00%
Aviva Life Insurance Company Limited	Life insurance	Hong Kong	40.00%	100.00%
PT Astra Aviva Life	Life and Health insurance	Indonesia	50.00%	50.00%
AvivaSA Emeklilik ve Hayat A.S	Life insurance	Turkey	40.00%	40.00%

The Group has no joint ventures whose non-controlling interest (NCI) is material on the basis of their share of profit/(loss).

(iv) The joint ventures have no significant contingent liabilities to which the Group is exposed. The Group has commitments to provide funding to property management joint ventures of £13 million (2017: £6 million).

In certain jurisdictions the ability of joint ventures to transfer funds in the form of cash dividends or to repay loans and advances made by the Group is subject to local corporate or insurance laws and regulations and solvency requirements.

(b) Impairment testing

Interests in joint ventures are tested for impairment of goodwill and intangibles when there is an indicator of impairment. They are tested for impairment by comparing the carrying value of the cash generating unit to which the goodwill or intangible relates to the recoverable value of that cash generating unit. Recoverable amount for long-term and general insurance businesses is calculated on a consistent basis with that used for impairment testing of goodwill, as set out in note 17(b). The recoverable amount of property management undertakings is the fair value less costs to sell of the joint venture, measured in accordance with the Group's accounting policy for investment property (see accounting policy Q).

20 – Interests in, and loans to, associates

This note analyses our interests in entities which we do not control but where we have significant influence.

(a) Carrying amount and details of associates

(i) The movements in the carrying amount comprised:

	2018			2017		
	Goodwill and intangibles £m	Equity interests £m	Total £m	Goodwill and intangibles £m	Equity interests £m	Total £m
At 1 January	—	421	421	65	416	481
Share of results before tax	—	22	22	—	22	22
Share of tax	—	(1)	(1)	—	(5)	(5)
Share of results after tax	—	21	21	—	17	17
Impairment	—	—	—	(65)	—	(65)
Share of profit/(loss) after tax	—	21	21	(65)	17	(48)
Additions	—	2	2	—	2	2
Reduction in Group interest	—	(78)	(78)	—	(5)	(5)
Reclassification to investment	—	(54)	(54)	—	—	—
Dividends received from associates	—	(8)	(8)	—	(13)	(13)
Foreign exchange rate movements	—	—	—	—	4	4
Movements in carrying amount	—	(117)	(117)	(65)	5	(60)
At 31 December	—	304	304	—	421	421

20 – Interests in, and loans to, associates continued

The Group's share of total comprehensive income related to associates is £21 million (2017: £48 million expense).

(ii) No associates are considered to be material from a Group perspective (2017: none). All investments in principal associates are held by subsidiaries. The Group's principal associates are as follows:

Name	Nature of activities	Principal place of business	Proportion of ownership interest	
			2018	2017
Aviva Life Insurance Company India Limited	Life insurance	India	49.00%	49.00%
SCPI Ufrance Immobilier	Property Management	France	20.40%	20.40%
SCPI Logipierre 1	Property Management	France	44.46%	44.46%
Lend Lease JEM Partners Fund Limited	Investment holding	Singapore	22.50%	22.50%
AI UK Commercial Real Estate Debt Fund ¹	Property Management	UK	17.16%	15.90%

¹ The Group has significant influence over AI UK Commercial Real Estate Debt Fund so it is therefore accounted for as an associate.

A principal property management associate SCPI Selectipierre 2 was disposed of externally to the Group during 2018. The proportion of ownership interest in 2017 was 28.67%.

On 5 November 2018, Aviva Investors exited its partnership arrangement in Encore+, a pan-European commercial property fund, with LaSalle Investment Management, as detailed in note 4(b)(iii). As a result, the Group's 4.8% shareholding in Encore+ has been reclassified from associates to financial investments as the Group no longer has significant influence.

(iii) The associates have no significant contingent liabilities to which the Group is exposed. The Group has commitments to provide funding to property management associates of £5 million (2017: £2 million).

In certain jurisdictions the ability of associates to transfer funds in the form of cash dividends or to repay loans and advances made by the Group is subject to local corporate or insurance laws and regulations and solvency requirements.

(b) Impairment testing

The recoverable amount of property management undertakings is the fair value less costs to sell of the associate, measured in accordance with the Group's accounting policy for investment property (see accounting policy Q).

In 2017, the Group determined that the goodwill of £47 million and AVIF of £18 million of its investment in Aviva Life Insurance Company India Limited (Aviva India) were fully impaired following management's annual impairment review. The total impairment of £65 million was recognised within the income statement as a component of share of profit after tax of joint ventures and associates.

The recoverable amount of Aviva India was determined based on its value in use which was calculated on an embedded value (EV) basis in line with Actuarial Practice Standard 10 (APS 10) as defined by the Institute of Actuaries of India. The EV cash flow projections, based on business plans covering a three year period, were adjusted to reflect a more prudent view of the value of the in-force business by applying higher expense overruns over an extended 7 year period on a run-off rate of 14% and pre-tax discount rate of 12%.

The recoverable amount determined based on this adjusted embedded value calculation and allocated to Aviva's 49% shareholding was £93 million which upon comparison with Aviva India's carrying amount at the time of the impairment assessment indicated that its goodwill and AVIF balances were fully impaired.

21 – Property and equipment

This note analyses our property and equipment, which are primarily properties occupied by Group companies.

	Properties under construction £m	Owner-occupied properties £m	Motor vehicles £m	Computer equipment £m	Other assets £m	Total £m
Cost or valuation						
At 1 January 2017	5	341	3	270	277	896
Additions	1	3	—	18	47	69
Disposals ¹	—	(20)	—	(134)	(61)	(215)
Transfers (to)/from investment property (note 22)	(5)	11	—	—	—	6
Fair value losses	—	(4)	—	—	—	(4)
Foreign exchange rate movements	—	9	—	1	2	12
At 31 December 2017	1	340	3	155	265	764
Additions	1	21	1	24	40	87
Disposals	(2)	(8)	—	(7)	(6)	(23)
Transfers (to)/from investment property (note 22)	—	—	—	—	—	—
Fair value gains	—	3	—	—	—	3
Foreign exchange rate movements	—	3	—	3	7	13
At 31 December 2018	—	359	4	175	306	844
Depreciation and impairment						
At 1 January 2017	—	(20)	(2)	(246)	(141)	(409)
Charge for the year	—	—	—	(13)	(22)	(35)
Disposals ¹	—	15	—	134	54	203
Impairment charge	—	2	—	—	(8)	(6)
Foreign exchange rate movements	—	—	—	—	(3)	(3)
At 31 December 2017	—	(3)	(2)	(125)	(120)	(250)
Charge for the year	—	—	(1)	(14)	(25)	(40)
Disposals	—	—	—	6	2	8
Impairment charge	—	—	—	—	—	—
Foreign exchange rate movements	—	—	—	(4)	(5)	(9)
At 31 December 2018	—	(3)	(3)	(137)	(148)	(291)
Carrying amount						
At 31 December 2017	1	337	1	30	145	514
At 31 December 2018	—	356	1	38	158	553
Less: Amounts classified as held for sale	—	(4)	—	—	(1)	(5)
At 31 December 2018	—	352	1	38	157	548

¹ Disposals of computer equipment primarily comprise exhausted assets within Aviva Central Services.

Total net fair value gains of £3 million on owner-occupied properties consist of £1 million of losses in the year (2017: £6 million losses) which have been taken to the income statement and £3 million reversal of losses (2017: £3 million reversal) taken to the income statement in previous years and £1 million gains (2017: £1 million losses) which have been taken to other comprehensive income.

Owner-occupied properties are stated at their revalued amounts, as assessed by qualified external valuers. These values are assessed in accordance with the relevant parts of the current Royal Institute of Chartered Surveyors Appraisal and Valuation Standards in the UK, and with current local valuation practices in other countries. This assessment is in accordance with UK Valuations Standards ('Red book'), and is the estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction, after proper marketing wherein the parties had acted knowledgeably and without compulsion, on the basis of the highest and best use of asset that is physically possible, legally permissible and financially feasible. The valuation assessment adopts market-based evidence and is in line with guidance from the International Valuation Standards Committee and the requirements of IAS 16 *Property, Plant and Equipment*.

Similar considerations apply to properties under construction, where an estimate is made of valuation when complete, adjusted for anticipated costs to completion, profit and risk, reflecting market conditions at the valuation date.

If owner-occupied properties were stated on a historical cost basis, the carrying amount would be £364 million (2017: £349 million).

The Group has no material finance leases for property and equipment.

22 – Investment property

This note gives details of the properties we hold for long-term rental yields or capital appreciation.

	2018			2017		
	Freehold £m	Leasehold £m	Total £m	Freehold £m	Leasehold £m	Total £m
Carrying value						
At 1 January	9,147	1,650	10,797	9,169	1,647	10,816
Acquisitions	218	208	426	—	—	—
Additions	543	97	640	530	12	542
Capitalised expenditure on existing properties	136	15	151	99	31	130
Fair value gains	307	—	307	440	41	481
Disposals	(713)	(177)	(890)	(1,216)	(85)	(1,301)
Transfers to property and equipment (note 21)	—	—	—	(6)	—	(6)
Reclassification ¹	(82)	82	—	—	—	—
Foreign exchange rate movements	45	6	51	131	4	135
At 31 December	9,601	1,881	11,482	9,147	1,650	10,797

1 A review of part leasehold/part freehold properties held by the Group has resulted in the reclassification of £82m from freehold to leasehold properties in 2018.

Please see note 23 'Fair value methodology' for further information on the fair value measurement and valuation techniques of investment property.

The fair value of investment properties leased to third parties under operating leases at 31 December 2018 was £11,172 million (2017: £10,513 million). Future contractual aggregate minimum lease rentals receivable under the non-cancellable portion of these leases are given in note 56(b)(i).

23 – Fair value methodology

This note explains the methodology for valuing our assets and liabilities measured at fair value, and for fair value disclosures. It also provides an analysis of these according to a 'fair value hierarchy', determined by the market observability of valuation inputs.

(a) Basis for determining fair value hierarchy

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the 'fair value hierarchy' described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

Level 1

Inputs to Level 1 fair values are quoted prices (unadjusted) in active markets for identical assets and liabilities that the entity can access at the measurement date.

Level 2

Inputs to Level 2 fair values are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. If the asset or liability has a specified (contractual) term, a Level 2 input must be observable for substantially the full term of the instrument. Level 2 inputs include the following:

- Quoted prices for similar assets and liabilities in active markets.
- Quoted prices for identical or similar assets and liabilities in markets that are not active, the prices are not current, or price quotations vary substantially either over time or among market makers, or in which little information is released publicly.
- Inputs other than quoted prices that are observable for the asset or liability (for example, interest rates and yield curves observable at commonly quoted intervals, implied volatilities, and credit spreads).
- Market-corroborated inputs.

Where we use broker quotes and no information as to the observability of inputs is provided by the broker, the investments are classified as follows:

- Where the broker price is validated by using internal models with market observable inputs and the values are similar, we classify the investment as Level 2.
- In circumstances where internal models are not used to validate broker prices, or the observability of inputs used by brokers is unavailable, the investment is classified as Level 3.

Level 3

Inputs to Level 3 fair values are unobservable inputs for the asset or liability. Unobservable inputs may have been used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date. However, the fair value measurement objective remains the same, i.e. an exit price at the measurement date from the perspective of a market participant that holds the asset or owes the liability. Unobservable inputs reflect the assumptions the business unit considers that market participants would use in pricing the asset or liability. Examples are investment properties and commercial and equity release mortgage loans.

23 – Fair value methodology continued

The majority of the Group's assets and liabilities measured at fair value are based on quoted market information or observable market data. Of the total assets and liabilities measured at fair value 17.7% (2017: 15.7%) of assets and 3.4% (2017: 3.2%) of liabilities are based on estimates and recorded as Level 3. Where estimates are used, these are based on a combination of independent third-party evidence and internally developed models, calibrated to market observable data where possible. Third-party valuations using significant unobservable inputs validated against Level 2 internally modelled valuations are classified as Level 3, where there is a significant difference between the third-party price and the internally modelled value. Where the difference is insignificant, the instrument would be classified as Level 2.

(b) Changes to valuation techniques

There were no changes in the valuation techniques during the year compared to those described in the 2017 annual consolidated financial statements.

(c) Comparison of the carrying amount and fair values of financial instruments

Set out below is a comparison of the carrying amounts and fair values of financial assets and liabilities, excluding those classified as held for sale. These amounts may differ where the assets or liabilities are carried on a measurement basis other than fair value, e.g. amortised cost.

	2018		2017	
	Fair value £m	Carrying amount £m	Fair value £m	Carrying amount £m
Financial assets				
Loans (note 24(a))	28,731	28,785	27,796	27,857
Financial investments (note 27(a))	297,585	297,585	311,082	311,082
Fixed maturity securities	169,289	169,289	174,808	174,808
Equity securities	82,128	82,128	89,968	89,968
Other investments (including derivatives)	46,168	46,168	46,306	46,306
Financial liabilities				
Non-participating investment contracts (note 44(a))	112,013	112,013	116,332	116,332
Net asset value attributable to unitholders	18,125	18,125	18,327	18,327
Borrowings (note 52(a)) ¹	9,826	9,420	11,538	10,286
Derivative liabilities (note 60(b))	5,571	5,571	5,751	5,751

¹ Within the fair value total, the estimated fair value has been provided for the portion of loans and borrowings that are carried at amortised cost as disclosed in note 23 (h).

Fair value of the following assets and liabilities approximate to their carrying amounts:

- Receivables
- Cash and cash equivalents
- Payables and other financial liabilities

As set out in accounting policy A, the Group has chosen to defer application of IFRS 9 due to its activities being predominantly connected with insurance. To facilitate comparison with entities applying IFRS 9 in full, the table below splits the Group's financial instruments as at the reporting date between those which are considered to have contractual terms which are solely payments of principal and interest (SPPI) on the principal amount outstanding (excluding instruments held for trading or managed and evaluated on a fair value basis), and all other instruments not falling into this category.

	SPPI – Fair value	Non-SPPI – fair value ¹
Debt securities	273	169,413
Equity securities	—	82,338
Loans	2,460	26,271
Receivables	5,849	3,041
Cash and cash equivalents	13,246	33,926
Accrued income and Interest	193	2,217
Other financial assets	10	52,802
Total	22,031	370,008

¹ Instruments within this category include financial assets that meet the definition of held for trading, financial assets that are managed and evaluated on a fair value basis, and instruments with contractual terms that do not give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

There has been a £7 million decrease in the fair value of SPPI instruments, and a £23,645 million decrease in the fair value of non-SPPI instruments during the reporting period.

23 – Fair value methodology continued

(d) Fair value hierarchy analysis

An analysis of assets and liabilities measured at amortised cost and fair value categorised by fair value hierarchy is given below.

2018	Fair value hierarchy			Sub-total Fair value £m	Amortised cost £m	Total carrying value £m
	Level 1 £m	Level 2 £m	Level 3 £m			
Recurring fair value measurements						
Investment property (note 22)	—	—	11,482	11,482	—	11,482
Loans (note 24(a))	—	518	25,008	25,526	3,259	28,785
Financial investments measured at fair value (note 27(a))						
Fixed maturity securities	102,979	48,732	17,578	169,289	—	169,289
Equity securities	81,714	—	414	82,128	—	82,128
Other investments (including derivatives)	37,780	4,281	4,107	46,168	—	46,168
Financial assets of operations classified as held for sale	5,240	19	1,992	7,251	—	7,251
Total	227,713	53,550	60,581	341,844	3,259	345,103
Financial liabilities measured at fair value						
Non-participating investment contracts ¹ (note 44(a))	111,966	47	—	112,013	—	112,013
Net asset value attributable to unit holders	18,100	—	25	18,125	—	18,125
Borrowings (note 52(a))	—	—	1,225	1,225	8,195	9,420
Derivative liabilities (note 60(b))	466	4,571	534	5,571	—	5,571
Financial liabilities of operations classified as held for sale	5,241	—	3,100	8,341	—	8,341
Total	135,773	4,618	4,884	145,275	8,195	153,470

1 In addition to the balances in this table, included within reinsurance assets in the statement of financial position and note 41 are £4,009 million of non-participating investment contracts, which are legally reinsurance but do not meet the definition of a reinsurance contract under IFRS. These assets are financial instruments measured at fair value through profit and loss and are classified as Level 1 assets.

2018	Fair value hierarchy			Total fair value £m
	Level 1 £m	Level 2 £m	Level 3 £m	
Non-recurring fair value measurement				
Properties occupied by group companies	—	—	352	352
Total	—	—	352	352

IFRS 13, Fair Value Measurement, permits assets and liabilities to be measured at fair value on either a recurring or non-recurring basis. Recurring fair value measurements are those that other IFRSs require or permit in the statement of financial position at the end of each reporting period, whereas non-recurring fair value measurements of assets or liabilities are those that other IFRSs require or permit in the statement of financial position in particular circumstances. The value of owner-occupied properties measured on a non-recurring basis at 31 December 2018 was £352 million (2017: £333 million), stated at their revalued amounts in line with the requirements of IAS 16 *Property, Plant and Equipment*.

2017	Fair value hierarchy			Sub-total Fair value £m	Amortised cost £m	Total carrying value £m
	Level 1 £m	Level 2 £m	Level 3 £m			
Recurring fair value measurements						
Investment property (note 22)	—	—	10,797	10,797	—	10,797
Loans (note 24(a))	—	443	23,949	24,392	3,465	27,857
Financial investments measured at fair value (note 27(a))						
Fixed maturity securities	107,771	51,900	15,137	174,808	—	174,808
Equity securities	89,192	—	776	89,968	—	89,968
Other investments (including derivatives)	38,249	5,194	2,863	46,306	—	46,306
Financial assets of operations classified as held for sale	6,192	27	2,093	8,312	—	8,312
Total	241,404	57,564	55,615	354,583	3,465	358,048
Financial liabilities measured at fair value						
Non-participating investment contracts ¹ (note 44(a))	116,123	209	—	116,332	—	116,332
Net asset value attributable to unit holders	18,314	—	13	18,327	—	18,327
Borrowings (note 52(a))	—	—	1,180	1,180	9,106	10,286
Derivative liabilities (note 60(b))	521	4,872	358	5,751	—	5,751
Financial liabilities of operations classified as held for sale	5,346	26	3,306	8,678	—	8,678
Total	140,304	5,107	4,857	150,268	9,106	159,374

1 In addition to the balances in this table, included within reinsurance assets in the statement of financial position and note 41 are £6,094 million of non-participating investment contracts, which are legally reinsurance but do not meet the definition of a reinsurance contract under IFRS. These assets are financial instruments measured at fair value through profit and loss and are classified as Level 1 assets.

2017	Fair value hierarchy			Total fair value £m
	Level 1 £m	Level 2 £m	Level 3 £m	
Non-recurring fair value measurement				
Properties occupied by group companies	—	—	333	333
Total	—	—	333	333

23 – Fair value methodology continued

(e) Valuation approach for fair value assets and liabilities classified as Level 2

Please see note 23(a) for a description of typical Level 2 inputs.

Debt securities, in line with market practice, are generally valued using an independent pricing service. These valuations are determined using independent external quotations from multiple sources and are subject to a number of monitoring controls, such as monthly price variances, stale price reviews and variance analysis. Pricing services, where available, are used to obtain the third-party broker quotes. Where pricing services providers are used, a single valuation is obtained and applied. When prices are not available from pricing services, quotes are sourced from brokers.

Over-the-counter derivatives are valued using broker quotes or models such as option pricing models, simulation models or a combination of models. The inputs for these models include a range of factors which are deemed to be observable, including current market and contractual prices for underlying instruments, period to maturity, correlations, yield curves and volatility of the underlying instruments.

Unit Trusts and other investment funds included under the other investments category are valued using net asset values which are not subject to a significant adjustment for restrictions on redemption or for limited trading activity.

(f) Transfers between levels of the fair value hierarchy

For financial instruments that are recognised at fair value on a recurring basis, the Group determines whether transfers have occurred between levels of the fair value hierarchy by re-assessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of the reporting period.

Transfers between Level 1 and Level 2

There were no significant transfers between Level 1 and Level 2 during the year.

Transfers to/from Level 3

£1.4 billion of assets transferred into Level 3 and £0.6 billion of assets transferred out of Level 3 relate principally to debt securities held by our businesses in the UK and France. These are transferred between Levels 2 and 3 depending on the availability of observable inputs and whether the counterparty and broker quotes are corroborated using valuation models with observable inputs.

There were no significant transfers of liabilities into and out of Level 3 during the year.

(g) Further information on Level 3 assets and liabilities:

The table below shows movement in the Level 3 assets and liabilities measured at fair value.

	Assets							Liabilities			
	Investment Property £m	Loans £m	Debt securities £m	Equity securities £m	Other investments (including derivatives) £m	Financial assets of operations classified as held for sale £m	Non participating investment contracts £m	Net asset value attributable to unitholders £m	Derivative liabilities £m	Borrowings £m	Financial liabilities of operations classified as held for sale £m
2018											
Opening balance at 1 January 2018	10,797	23,949	15,137	776	2,863	2,093	—	(13)	(358)	(1,180)	(3,306)
Total net gains/(losses) recognised in the income statement ¹	376	(530)	(363)	(102)	(69)	(73)	—	—	(136)	(81)	74
Purchases	1,185	3,451	3,175	189	1,761	201	(108)	—	(59)	—	(95)
Issuances	—	200	—	—	—	—	—	—	—	—	—
Disposals	(927)	(2,065)	(1,221)	(544)	(554)	(191)	108	(12)	20	36	189
Transfers into Level 3	—	—	1,242	95	77	20	—	—	—	—	(20)
Transfers out of Level 3	—	—	(503)	(2)	—	(58)	—	—	—	—	58
Reclassification to held for sale	—	—	—	—	—	—	—	—	—	—	—
Foreign exchange rate movements	51	3	111	2	29	—	—	—	(1)	—	—
Balance at 31 December 2018	11,482	25,008	17,578	414	4,107	1,992	—	(25)	(534)	(1,225)	(3,100)

¹ Total net gains/(losses) recognised in the income statement includes realised gains/(losses) on disposals.

	Assets							Liabilities			
	Investment Property £m	Loans £m	Debt securities £m	Equity securities £m	Other investments (including derivatives) £m	Financial assets of operations classified as held for sale £m	Non participating investment contracts £m	Net asset value attributable to unitholders £m	Derivative liabilities £m	Borrowings £m	Financial liabilities of operations classified as held for sale £m
2017											
Opening balance at 1 January 2017	10,768	20,923	16,447	913	4,001	980	(3,408)	(20)	(1,600)	(1,110)	—
Total net gains/(losses) recognised in the income statement ¹	511	643	(795)	(179)	55	162	—	7	(105)	(97)	(165)
Purchases	672	3,252	1,745	66	944	267	(153)	—	(9)	—	(113)
Issuances	—	151	—	—	—	(1)	—	—	—	—	—
Disposals	(1,289)	(1,025)	(1,771)	(12)	(439)	(1,383)	153	—	180	27	377
Transfers into Level 3	—	—	899	2	10	132	—	—	(164)	—	(132)
Transfers out of Level 3	—	—	(1,399)	—	(83)	(135)	—	—	1,342	—	135
Reclassification to held for sale	—	—	(340)	(19)	(1,682)	2,041	3,408	—	—	—	(3,408)
Foreign exchange rate movements	135	5	351	5	57	30	—	—	(2)	—	—
Balance at 31 December 2017	10,797	23,949	15,137	776	2,863	2,093	—	(13)	(358)	(1,180)	(3,306)

¹ Total net gains/(losses) recognised in the income statement includes realised gains/(losses) on disposals.

23 – Fair value methodology continued

Total net losses recognised in the income statement in the year ended 31 December 2018 in respect of Level 3 assets measured at fair value amounted to £761 million (2017: *net gains of £397 million*) with net losses in respect of liabilities of £143 million (2017: *net losses of £360 million*). Net losses of £529 million (2017: *net gains of £200 million*) attributable to assets and net losses of £178 million (2017: *net losses of £212 million*) attributable to liabilities relate to those still held at the end of the year.

The principal assets classified as Level 3, and the valuation techniques applied to them, are described below.

(i) Investment property

- Investment property is valued in the UK at least annually by external chartered surveyors in accordance with guidance issued by The Royal Institution of Chartered Surveyors, and using estimates during the intervening period. Outside the UK, valuations are produced by external qualified professional appraisers in the countries concerned. Investment properties are valued on an income approach that is based on current rental income plus anticipated uplifts at the next rent review, lease expiry, or break options taking into consideration lease incentives and assuming no further growth in the estimated rental value of the property. The uplift and discount rates are derived from rates implied by recent market transactions on similar properties. These inputs are deemed unobservable.

(ii) Loans

- Commercial mortgage loans and Primary Healthcare loans held by our UK Life business are valued using a Portfolio Credit Risk Model. This model calculates a Credit Risk Adjusted Value for each loan. The risk adjusted cash flows are discounted using a yield curve, taking into account the term dependent gilt yield curve and global assumptions for the liquidity premium. Loans valued using this model have been classified as Level 3 as the liquidity premium is deemed to be non-market observable. The liquidity premium used in the discount rate ranges between 65 bps to 195 bps.
- Equity release mortgage loans held by our UK Life business are valued using an internal model, with fair value initially being equal to the transaction price. The value of these loans is dependent on the expected term of the mortgage and the forecast property value at the end of the term, and is calculated by adjusting future cash flows for credit risk and discounting using a yield curve plus an allowance for illiquidity. At 31 December 2018 the illiquidity premium used in the discount rate was 210 bps. The mortgages have a no negative equity guarantee ('NNEG') such that the cost of any potential shortfall between the value of the loan and the realised value of the property, at the end of the term, is recognised by a deduction to the value of the loan. Property valuations at the reporting date are obtained by taking the most recent valuation for the property and indexing using market observable regional house price indices. NNEG is calculated using base property growth rates reduced for the cost of potential dilapidations, using a stochastic model. In addition, a cost of capital charge is applied to reflect the variability in these cashflows. The base property growth rate assumption is RPI +0.75% which equates to a long-term average growth rate of 4.3% pa. After applying the cost of capital charge, dilapidations and the stochastic distribution, the effective net long-term growth rate equates to 0.6% pa.
- Mortgage loan assumptions for future property prices and rental income also include an allowance for the possible adverse impact of the decision for the UK to leave the European Union (see note 9).
- Infrastructure and Private Finance Initiative (PFI) loans held by our UK Life business are valued using a discounted cash flow model. This adds spreads for credit and illiquidity to a risk-free discount rate. Credit spreads used in the discount rate are calculated using an internally developed methodology which depends on the credit rating of each loan, credit spreads on publicly traded bonds and an estimated recovery rate in event of default and are deemed to be unobservable. The liquidity premium used in the discount rate is 65 bps.

(iii) Debt securities

- Structured bond-type and non-standard debt products held by our business in France and bonds held by our UK business have no active market. These debt securities are valued either using counterparty or broker quotes and validated against internal or third-party models. These bonds have been classified as Level 3 because either (i) the third-party models includes a significant unobservable liquidity adjustment, or (ii) differences between the valuation provided by the counterparty and broker quotes and the validation model are sufficiently significant to result in a Level 3 classification.
- Privately placed notes held by our UK Life business have been valued using broker quotes or a discounted cash flow model using discount factors based on swap curves of similar maturity, plus internally derived spreads for credit risk. As these spreads have been deemed to be unobservable these notes have been classified as Level 3.
- Debt securities held by our French business and by our UK and Asia businesses which are not traded in an active market have been valued using third party or counterparty valuations. These prices are considered to be unobservable due to infrequent market transactions.

(iv) Equity securities

- Equity securities which primarily comprise private equity holdings held in the UK are valued by a number of third party specialists. These are valued using a range of techniques, including earnings multiples, forecast cash flows and price/earnings ratios which are deemed to be unobservable.

(v) Property Funds

- Property funds are valued based on external valuation reports received from fund managers.

(vi) Financial assets of operations classified as held for sale

- Financial assets of operations classified as held for sale are held by our Asia business and consist primarily of discretionary managed funds of £1.4 billion (2017: *£1.6 billion*) and debt securities which are not traded in an active market and have been valued using third party or counterparty valuations of £0.4 billion (2017: *£0.4 billion*). These assets are included within the relevant asset category within the sensitivity table below.

23 – Fair value methodology continued

(vii) Liabilities

The principal liabilities classified as Level 3, and the valuation techniques applied to them, are:

- £3.1 billion (2017: £3.3 billion) of non-participating investment contract liabilities which are included within financial liabilities of operations classified as held for sale. These are classified as Level 3, either because the underlying unit funds are classified as Level 3 or because the liability relates to unfunded units or other non-unit adjustments which are based on a discounted cash flow analysis using unobservable market data and assumptions. These liabilities are included within the relevant asset category within the sensitivity table below.
- Securitised mortgage loan notes, presented within Borrowings, are valued using a similar technique to the related Level 3 securitised mortgage assets.

Where these valuations are at a date other than the balance sheet date, as in the case of some private equity funds, adjustments are made to reflect items such as subsequent drawdowns and distributions and the fund manager's carried interest.

Sensitivities

Where possible, the Group tests the sensitivity of the fair values of Level 3 assets and liabilities to changes in unobservable inputs to reasonable alternatives. Level 3 valuations are sourced from independent third parties when available and, where appropriate, validated against internally-modelled valuations, third-party models or broker quotes. Where third-party pricing sources are unwilling to provide a sensitivity analysis for their valuations, the Group undertakes, where feasible, sensitivity analysis on the following basis:

- For third-party valuations validated against internally-modelled valuations using significant unobservable inputs, the sensitivity of the internally-modelled valuation to changes in unobservable inputs to a reasonable alternative is determined.
- For third-party valuations either not validated or validated against a third-party model or broker quote, the third-party valuation in its entirety is considered an unobservable input. Sensitivities are determined by flexing inputs of internal models to a reasonable alternative, including the yield, NAV multiple or other suitable valuation multiples of the financial instrument implied by the third-party valuation. For example, for a fixed income security the implied yield would be the rate of return which discounts the security's contractual cash flows to equal the third-party valuation.

The table below shows the sensitivity of the fair value of Level 3 assets and liabilities at 31 December 2018 to changes in unobservable inputs to a reasonable alternative:

	2018 Fair value £bn	Most significant unobservable input	Reasonable alternative	Sensitivities	
				Positive Impact £bn	Negative Impact £bn
Investment property	11.6	Equivalent rental yields	+/- 5-10%	0.9	(0.9)
Loans					
Commercial mortgage loans and Primary Healthcare loans	11.5	Illiquidity premium	+/- 20 bps	0.2	(0.2)
Equity release mortgage loans	9.7	Base property growth rate	+/- 10%	0.5	(0.5)
		Current property market values	+/- 10%	0.3	(0.4)
Infrastructure and Private Finance Initiative (PFI) loans	3.4	Illiquidity premium	+/- 25 bps ¹	0.1	(0.1)
Other	0.4	Illiquidity premium	+/- 25 bps ¹	—	—
Debt securities					
Structured bond-type and non-standard debt products	6.6	Market spread (credit, liquidity and other)	+/- 25 bps	0.1	(0.1)
Privately placed notes	1.6	Credit spreads	+/- 25 bps ¹	0.1	—
Other debt securities	9.8	Credit and liquidity spreads	+/- 20-25 bps	0.4	(0.4)
Equity securities	0.3	Market spread (credit, liquidity and other)	+/- 25 bps	—	—
Other investments					
Property Funds	0.8	Market multiples applied to net asset values	+/- 15-20%	0.1	(0.1)
Other investments (including derivatives)	4.9	Market multiples applied to net asset values	+/- 10-40% ²	0.7	(0.6)
Liabilities					
Non-participating investment contract liabilities	(3.1)	Fair value of the underlying unit funds	+/- 20-25%	0.4	(0.4)
Borrowings	(1.2)	Illiquidity premium	+/- 50 bps	—	—
Other liabilities (including derivatives)	(0.6)	Independent valuation vs counterparty	N/A	—	—
Total Level 3 investments	55.7			3.8	(3.7)

1 On discount spreads.

2 Dependent on investment category.

The above table demonstrates the effect of a change in one unobservable input while other assumptions remain unchanged. In reality, there may be a correlation between the unobservable inputs and other factors. It should also be noted that some of these sensitivities are non-linear, and larger or smaller impacts should not be interpolated or extrapolated from these results.

23 – Fair value methodology continued**(h) Assets and liabilities not carried at fair value for which fair value is disclosed**

The table below shows the fair value and fair value hierarchy for those assets and liabilities not carried at fair value.

		As recognised in the consolidated statement of financial position line item	Fair value hierarchy			
	Notes		Level 1 £m	Level 2 £m	Level 3 £m	Total fair value £m
2018						
Assets and liabilities not carried at fair value						
Loans	24(b)	3,259	—	1,454	1,751	3,205
Borrowings	52(a)	8,195	7,979	213	409	8,601

		As recognised in the consolidated statement of financial position line item	Fair value hierarchy			
			Level 1 £m	Level 2 £m	Level 3 £m	Total fair value £m
2017	Notes					
Assets and liabilities not carried at fair value						
Loans	24(b)	3,465	—	1,280	2,124	3,404
Borrowings	52(a)	9,106	9,779	205	374	10,358

24 – Loans

This note analyses the loans our Group companies have made, the majority of which are mortgage loans.

(a) Carrying amounts

The carrying amounts of loans at 31 December 2018 and 2017 were as follows:

	2018			2017		
	At fair value through profit or loss other than trading £m	At amortised cost £m	Total £m	At fair value through profit or loss other than trading £m	At amortised cost £m	Total £m
Policy loans	1	769	770	1	792	793
Loans to banks	303	1,620	1,923	554	1,970	2,524
Healthcare, infrastructure & PFI other loans	5,358	—	5,358	3,563	—	3,563
UK securitised mortgage loans (see note 25)	2,437	—	2,437	2,463	—	2,463
Non-securitised mortgage loans	17,427	—	17,427	17,817	—	17,817
Loans to brokers and other intermediaries	—	164	164	—	180	180
Other loans	—	706	706	—	523	523
Total	25,526	3,259	28,785	24,398	3,465	27,863
Less: Amounts classified as held for sale	—	—	—	(6)	—	(6)
	25,526	3,259	28,785	24,392	3,465	27,857

Of the above total loans, £26,696 million (2017: £26,206 million) are due to be recovered in more than one year after the statement of financial position date.

Loans at fair value

Fair values have been calculated by using cash flow models appropriate for each portfolio of mortgages. Further details of the fair value methodology and models utilised are given in note 23 (g).

The cumulative change in fair value of loans attributable to changes in credit risk to 31 December 2018 was a £1,304 million loss (2017: £1,090 million loss).

Non-securitised mortgage loans include £7.3 billion (2017: £6.8 billion) of residential equity release mortgages, £7.3 billion (2017: £7.6 billion) of commercial mortgages and £2.8 billion (2017: £3.4 billion) relating to UK primary healthcare and PFI businesses. The healthcare and PFI mortgage loans are secured against General Practitioner premises, other primary health-related premises or other emergency services related premises. For all such loans, government support is provided through either direct funding or reimbursement of rental payments to the tenants to meet income service and provide for the debt to be reduced substantially over the term of the loan. Although the loan principal is not government-guaranteed, the nature of these businesses and premises provides considerable comfort of an ongoing business model and low risk of default.

Healthcare, Infrastructure and PFI other loans of £5.4 billion (2017: £3.6 billion) are secured against the income from healthcare and educational premises.

Loans at amortised cost

The fair value of these loans at 31 December 2018 was £3,205 million (2017: £3,404 million).

(b) Analysis of loans carried at amortised cost

	2018			2017		
	Amortised Cost £m	Impairment £m	Carrying Value £m	Amortised Cost £m	Impairment £m	Carrying Value £m
Policy loans	769	—	769	792	—	792
Loans to banks	1,620	—	1,620	1,970	—	1,970
Non-securitised mortgage loans	9	(9)	—	9	(9)	—
Loans to brokers and other intermediaries	164	—	164	180	—	180
Other loans	707	(1)	706	523	—	523
Total	3,269	(10)	3,259	3,474	(9)	3,465

The movements in the impairment provisions on these loans for the years ended 31 December 2018 and 2017 were as follows:

	2018 £m	2017 £m
At 1 January	(9)	(7)
Increase during the year	(1)	(2)
At 31 December	(10)	(9)

24 – Loans continued

(c) Collateral

Loans to banks include cash collateral received under stock lending arrangements (see note 61 for further discussion regarding these collateral positions). The obligation to repay this collateral is included in payables and other financial liabilities (note 53).

The Group holds collateral in respect of loans where it is considered appropriate in order to reduce the risk of non-recovery. This collateral generally takes the form of liens or charges over properties and, in the case of policy loans, the underlying policy for the majority of the loan balances above. In all other situations, the collateral must be in a readily realisable form, such as listed securities, and is held in segregated accounts.

25 – Securitised mortgages and related assets

The Group, in its UK Life business, has loans receivable, secured by mortgages, which have then been securitised through non-recourse borrowings. This note gives details of the relevant transactions.

(a) Description of current arrangements

In a UK long-term business subsidiary, Aviva Equity Release UK Limited (AER), the beneficial interest in certain portfolios of lifetime mortgages has been transferred to five special purpose securitisation companies (the ERF companies), in return for initial consideration and, at later dates, deferred consideration. The deferred consideration represents receipts accrued within the ERF companies after meeting all their obligations to the note holders, loan providers and other third parties in the priority of payments. The purchases of the mortgages were funded by the issue of fixed and floating rate notes by the ERF companies.

All the shares in the ERF companies are held by independent companies, whose shares are held on trust. Although AER does not own, directly or indirectly, any of the share capital of the ERF companies or their parent companies, it has control of the securitisation companies, and they have therefore been treated as subsidiaries in the consolidated financial statements. AER has no right to repurchase the benefit of any of the securitised mortgage loans, other than in certain circumstances where AER is in breach of warranty or loans are substituted in order to effect a further advance.

AER has purchased subordinated notes and granted subordinated loans to some of the ERF companies. In addition, Group companies have invested £239 million (2017: £231 million) in loan notes issued by the ERF companies. These have been eliminated on consolidation through offset against the borrowings of the ERF companies in the consolidated statement of financial position.

In all of the above transactions, the Company and its subsidiaries are not obliged to support any losses that may be suffered by the note holders and do not intend to provide such support. Additionally, the notes were issued on the basis that note holders are only entitled to obtain payment, of both principal and interest, to the extent that the available resources of the respective special purpose securitisation companies, including funds due from customers in respect of the securitised loans, are sufficient and that note holders have no recourse whatsoever to other companies in the Aviva Group.

(b) Carrying values

The following table summarises the securitisation arrangements:

	2018		2017	
	Securitised assets £m	Securitised liabilities £m	Securitised assets £m	Securitised liabilities £m
Securitised mortgage loans (note 24) and loan notes issued	2,437	(1,464)	2,463	(1,411)
Other securitisation assets/(liabilities)	266	(1,239)	265	(1,317)
	2,703	(2,703)	2,728	(2,728)

Loan notes held by third parties are as follows:

	2018 £m	2017 £m
Total loan notes issued, as above	1,464	1,411
Less: Loan notes held by Group companies	(239)	(231)
Loan notes held by third parties (note 52(c)(i))	1,225	1,180

26 – Interests in structured entities

A structured entity is defined as an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only, or when the relevant activities are directed by means of contractual arrangements. The Group has interests in both consolidated and unconsolidated structured entities as described below.

The Group holds redeemable shares or units in investment vehicles, which consist of:

- Debt securities comprising securitisation vehicles that Aviva does not originate. These investments are comprised of a variety of debt instruments, including asset-backed securities and other structured securities.
- Investment funds which include: hedge funds, liquidity funds, private equity funds, unit trusts, mutual funds and Private Finance Initiatives (PFIs).
- Specialised investment vehicles include Open Ended Investment Companies (OEICs), Property Limited Partnerships (PLPs), Sociétés d'Investissement à Capital Variable (SICAVs), Tax Transparent Funds (TTFs) and other investment vehicles.

The Group's holdings in investment vehicles are subject to the terms and conditions of the respective investment vehicle's offering documentation and are susceptible to market price risk arising from uncertainties about future values of those investment vehicles. The investment manager makes investment decisions after extensive due diligence of the underlying investment vehicle including consideration of its strategy and the overall quality of the underlying investment vehicle's manager.

All of the investment vehicles in the investment portfolio are managed by portfolio managers who are compensated by the respective investment vehicles for their services. Such compensation generally consists of an asset-based fee and a performance-based incentive fee, and is reflected in the valuation of the investment vehicles.

(a) Interests in consolidated structured entities

The Group has determined that where it has control over investment vehicles, these investments are consolidated structured entities. As at 31 December 2018 the Group has granted loans to consolidated PLPs for a total of £84 million (2017: £82 million). The purpose of these loans is to assist the consolidated PLPs to purchase or construct properties. The Group has also provided support, without having a contractual obligation to do so, to certain consolidated PLPs via letters of support amounting to £51 million (2017: £72 million). The Group has no commitments to provide funding to consolidated structured entities (2017: £nil).

The Group has also given support to five special purpose securitisation companies (the ERF companies) that are consolidated structured entities. As set out in note 25, at the inception of the securitisation vehicles, the UK subsidiary, Aviva Equity Release UK Limited (AER), has granted subordinated loan facilities to some of the ERF companies. AER receives various fees in return for the services provided to the entities. AER receives cash management fees based on the outstanding loan balance at the start of each quarter for the administration of the loan note liabilities. AER receives portfolio administration fees as compensation for managing the mortgage assets. Refer to note 25 for details of securitised mortgages and related assets as at 31 December 2018.

As at the reporting date, the Group has no intentions to provide financial or other support in relation to any other investment vehicles.

26 – Interests in structured entities continued

(b) Interests in unconsolidated structured entities

As part of its investment activities, the Group invests in unconsolidated structured entities. As at 31 December 2018, the Group's total interest in unconsolidated structured entities was £59.0 billion (2017: £57.5 billion) on the Group's statement of financial position. The Group's total interest in unconsolidated structured entities is classified as 'Interests in and loans to joint ventures and associates' and 'financial investments held at fair value through profit or loss'. The Group does not sponsor any of the unconsolidated structured entities.

As at 31 December 2018, a summary of the Group's interest in unconsolidated structured entities is as follows:

	2018 £m					2017 £m ¹				
	Interest in, and loans to, joint ventures	Interest in, and loans to, associates	Financial investments	Loans	Total assets	Interest in, and loans to, joint ventures	Interest in, and loans to, associates	Financial investments	Loans	Total assets
Structured debt securities ²	—	—	3,434	—	3,434	—	—	3,482	—	3,482
Other investments and equity securities	797	217	47,663	—	48,677	820	326	47,609	—	48,755
Analysed as:										
Unit trust and other investment vehicles	—	—	45,212	—	45,212	—	—	45,666	—	45,666
PLPs and property funds	797	217	1,975	—	2,989	820	326	1,435	—	2,581
Other (Including other funds and equity securities)	—	—	476	—	476	—	—	508	—	508
Loans ³	—	—	—	6,886	6,886	—	—	—	5,283	5,283
Total	797	217	51,097	6,886	58,997	820	326	51,091	5,283	57,520

1 Following a review of the Group's investment classifications, comparative amounts in respect of structured debt securities have been amended from those previously reported to include certain government and corporate debt securities that meet the definition of structured entities. The effect of this change is to increase the reported 2017 structured debt securities by £424 million.

2 Primarily reported within 'other debt securities' in note 27a.

3 Loans include Healthcare, infrastructure & PFI other loans along with certain non-securitised mortgage loans.

The Group's maximum exposure to loss related to the interests in unconsolidated structured entities is £59.0 billion (2017: £57.5 billion).

The majority of debt securities above are investment grade securities held by the UK business. In some cases, the Group may be required to absorb losses from an unconsolidated structured entity before other parties when and if Aviva's interest is more subordinated with respect to other owners of the same security.

For commitments to property management joint ventures and associates, please refer to notes 19 and 20, respectively. The Group has not provided any other financial or other support in addition to that described above as at the reporting date, and there are no intentions to provide support in relation to any other unconsolidated structured entities in the foreseeable future.

In relation to risk management, disclosures on debt securities and investment vehicles are given in note 59(b)(ii) 'Risk management'. In relation to other guarantees and commitments that the Group provides in the course of its business, please refer to note 55(f) 'Contingent liabilities and other risk factors'.

Aviva's interest in unconsolidated structured entities that it also manages at 31 December 2018 is £2.1 billion (2017: £1.9 billion) and the total funds under management relating to these investments at 31 December 2018 is £16.8 billion (2017: £16.2 billion).

(c) Other interests in unconsolidated structured entities

The Group receives management fees and other fees in respect of its asset management businesses. The Group does not sponsor any of the funds or investment vehicles from which it receives fees. Management fees received for investments that the Group manages but does not have a holding in also represent an interest in unconsolidated structured entities. As these investments are not held by the Group, the investment risk is borne by the external investors and therefore the Group's maximum exposure to loss relates to future management fees. The table below shows the assets under management of entities that the Group manages but does not have a holding in and the fees earned from those entities.

	2018		2017	
	Assets Under Management £m	Investment Management Fees £m	Assets Under Management £m	Investment Management Fees £m
Investment funds¹	7,473	38	9,411	67
Specialised investment vehicles:	3,541	6	3,877	12
Analysed as:				
OEICs	944	1	1,177	3
PLPs	2,597	5	2,666	9
SICAVs	—	—	34	—
Total	11,014	44	13,288	79

1 Investment funds relate primarily to the Group's Polish pension funds.

27 – Financial investments

This note analyses our financial investments by type and shows their cost and fair value. These will change from one period to the next as a result of new business written, claims paid and market movements.

(a) Carrying amount

Financial investments comprise:

	2018				2017			
	Trading £m	At fair value through profit or loss Other than trading £m	Available for sale £m	Total £m	Trading £m	At fair value through profit or loss Other than trading £m	Available for sale £m	Total £m
Fixed maturity securities								
Debt securities								
UK government	—	27,665	—	27,665	—	30,242	—	30,242
UK local authorities	—	191	—	191	—	19	—	19
Non-UK government (note 27(d))	—	52,799	1,287	54,086	—	51,399	1,342	52,741
Corporate bonds								
Public utilities	—	10,786	17	10,803	—	11,105	24	11,129
Other corporate	—	65,151	291	65,442	—	69,700	281	69,981
Convertibles and bonds with warrants attached	—	—	—	—	—	9	—	9
Other	—	10,291	—	10,291	—	10,801	—	10,801
	—	166,883	1,595	168,478	—	173,275	1,647	174,922
Certificates of deposit	—	1,123	85	1,208	—	947	79	1,026
	—	168,006	1,680	169,686	—	174,222	1,726	175,948
Equity securities								
Ordinary shares								
Public utilities	—	2,383	—	2,383	—	2,402	—	2,402
Banks, trusts and insurance companies ¹	—	18,039	1	18,040	—	18,852	1	18,853
Industrial miscellaneous and all other ¹	—	61,719	—	61,719	—	68,656	8	68,664
	—	82,141	1	82,142	—	89,910	9	89,919
Non-redeemable preference shares	—	196	—	196	—	244	—	244
	—	82,337	1	82,338	—	90,154	9	90,163
Other investments								
Unit trusts and other investment vehicles	—	45,211	1	45,212	—	45,665	1	45,666
Derivative financial instruments (note 60)	4,994	—	—	4,994	5,507	—	—	5,507
Deposits with credit institutions	—	155	—	155	—	161	—	161
Minority holdings in property management undertakings	—	1,975	—	1,975	—	1,435	—	1,435
Other investments – long-term	—	475	—	475	—	507	—	507
Other investments – short-term	—	1	—	1	—	1	—	1
	4,994	47,817	1	52,812	5,507	47,769	1	53,277
Total financial investments	4,994	298,160	1,682	304,836	5,507	312,145	1,736	319,388
Less: assets classified as held for sale								
Fixed maturity securities	—	(397)	—	(397)	—	(1,140)	—	(1,140)
Equity securities	—	(210)	—	(210)	—	(195)	—	(195)
Other investments	—	(6,644)	—	(6,644)	(8)	(6,963)	—	(6,971)
	—	(7,251)	—	(7,251)	(8)	(8,298)	—	(8,306)
	4,994	290,909	1,682	297,585	5,499	303,847	1,736	311,082

¹ Following a review of the Group's investment classifications, comparative amounts in the table have been revised. This review has resulted in a reclassification of £5,443 million in Equity securities previously classified as Banks, trusts and insurance companies to Industrial miscellaneous and all other. There is no impact on total Equity securities.

Of the above total, £144,001 million (2017: £154,835 million) is due to be recovered in more than one year after the statement of financial position date.

Other debt securities of £10,291 million (2017: £10,801 million) include residential and commercial mortgage-backed securities, as well as other structured credit securities.

27 – Financial investments continued

(b) Cost, unrealised gains and fair value

The following is a summary of the cost/amortised cost, gross unrealised gains and losses and fair value of financial investments:

	2018				2017			
	Cost/amortised cost £m	Unrealised gains £m	Unrealised losses and impairments £m	Fair value £m	Cost/amortised cost £m	Unrealised gains £m	Unrealised losses and impairments £m	Fair value £m
Fixed maturity securities	162,254	15,784	(8,352)	169,686	162,092	20,244	(6,388)	175,948
Equity securities	80,917	7,763	(6,342)	82,338	75,060	16,819	(1,716)	90,163
Other investments								
Unit trusts and other investment vehicles	41,703	6,841	(3,332)	45,212	34,271	11,120	275	45,666
Derivative financial instruments	1,274	4,697	(977)	4,994	1,328	4,569	(390)	5,507
Deposits with credit institutions	155	—	—	155	161	—	—	161
Minority holdings in property management undertakings	1,784	241	(50)	1,975	1,332	180	(77)	1,435
Other investments – long-term	473	33	(31)	475	477	61	(31)	507
Other investments – short-term	1	—	—	1	1	—	—	1
	288,561	35,359	(19,084)	304,836	274,722	52,993	(8,327)	319,388
These are further analysed as follows:								
At fair value through profit or loss	286,959	35,274	(19,079)	303,154	273,087	52,891	(8,326)	317,652
Available for sale	1,602	85	(5)	1,682	1,635	102	(1)	1,736
	288,561	35,359	(19,084)	304,836	274,722	52,993	(8,327)	319,388

All unrealised gains and losses and impairments on financial investments classified as fair value through profit or loss have been recognised in the income statement.

Unrealised gains and losses on financial investments classified as at fair value through profit or loss, recognised in the income statement in the year, were a net loss of £28,001 million (2017: £6,880 million net gain). Of this net loss, £27,197 million net loss (2017: £6,955 million net gain) related to investments designated as other than trading and £804 million net loss (2017: £75 million net loss) related to financial investments designated as trading.

The movement in the unrealised gain/loss position reported in the statement of financial position during the year, shown in the table above, includes foreign exchange movements on the translation of unrealised gains and losses on financial investments held by foreign subsidiaries, which are recognised in other comprehensive income, as well as transfers due to the realisation of gains and losses on disposal and the recognition of impairment losses.

(c) Financial investment arrangements

(i) Stock lending arrangements

The Group has entered into stock lending arrangements in the UK and overseas in accordance with established market conventions. The majority of the Group's stock lending transactions occur in the UK, where investments are lent to EEA-regulated, locally domiciled counterparties and governed by agreements written under English law.

The Group receives collateral in order to reduce the credit risk of these arrangements, either in the form of securities or cash. See note 61 for further discussion regarding collateral positions held by the Group.

(ii) Other arrangements

In carrying on its bulk purchase annuity business, the Group's UK Life operation is required to place certain investments in trust on behalf of the policyholders. Amounts become payable from the trust funds to the trustees if the Group were to be in breach of its payment obligations in respect of policyholder benefits. At 31 December 2018, £2,313 million (2017: £2,402 million) of financial investments were restricted in this way.

Certain financial investments are also required to be deposited under local laws in various overseas countries as security for the holders of policies issued in those countries. Other investments are pledged as security collateral for bank letters of credit.

27 – Financial investments continued

(d) Non-UK Government Debt Securities (gross of non-controlling interests)

The following is a summary of non-UK government debt by issuer as at 31 December 2018, analysed by policyholder, participating and shareholder funds.

	Policyholder		Participating		Shareholder		Total	
	2018 £m	2017 £m	2018 £m	2017 £m	2018 £m	2017 £m	2018 £m	2017 £m
Non-UK Government Debt Securities								
Austria	10	5	572	550	167	127	749	682
Belgium	27	22	863	967	268	314	1,158	1,303
France	128	133	13,992	13,454	2,036	2,093	16,156	15,680
Germany	126	127	1,685	1,437	490	615	2,301	2,179
Ireland	3	3	840	679	138	84	981	766
Italy	177	183	9,526	8,223	772	823	10,475	9,229
Netherlands	32	43	605	88	340	322	977	453
Poland	749	845	687	790	538	598	1,974	2,233
Portugal	23	2	135	136	—	—	158	138
Spain	84	87	514	314	94	233	692	634
European Supranational debt	151	213	1,733	1,841	1,759	1,777	3,643	3,831
Other European countries	245	176	1,426	2,104	639	917	2,310	3,197
Europe	1,755	1,839	32,578	30,583	7,241	7,903	41,574	40,325
Canada	29	23	118	53	2,947	2,512	3,094	2,588
United States	813	1,443	294	661	719	531	1,826	2,635
North America	842	1,466	412	714	3,666	3,043	4,920	5,223
Singapore	5	14	658	558	342	297	1,005	869
Other	2,282	2,396	3,567	3,520	738	408	6,587	6,324
Asia Pacific and other	2,287	2,410	4,225	4,078	1,080	705	7,592	7,193
Total	4,884	5,715	37,215	35,375	11,987	11,651	54,086	52,741
Assets of operations classified as held for sale	9	1	—	—	1	531	10	532
Total (excluding assets held for sale)	4,875	5,714	37,215	35,375	11,986	11,120	54,076	52,209

At 31 December 2018, the Group's total government (non-UK) debt securities stood at £54.1 billion (2017: £52.7 billion). The significant majority of these holdings are within our participating funds where the risk to our shareholders is governed by the nature and extent of our participation within those funds.

Our direct shareholder asset exposure to government (non-UK) debt securities amounts to £12.0 billion (2017: £11.7 billion). The primary exposures, relative to total shareholder (non-UK) government debt exposure, are to Canadian (25%), French (17%), Italian (6%), US (6%), Polish (4%) and German (4%) government debt securities.

The participating funds exposure to (non-UK) government debt amounts to £37.2 billion (2017: £35.4 billion). The primary exposures, relative to total (non-UK) government debt exposures included within our participating funds, are to the (non-UK) government debt securities of France (38%), Italy (26%), Germany (5%), Belgium (2%), Ireland (2%) and Poland (2%).

27 – Financial investments continued

(e) Exposure to worldwide banks – debt securities

Direct shareholder and participating fund assets exposures to worldwide bank debt securities (net of non-controlling interests, excluding policyholder assets)

	Shareholder assets			Participating fund assets		
	Total senior debt £bn	Total subordinated debt £bn	Total debt £bn	Total senior debt £bn	Total subordinated debt £bn	Total debt £bn
2018						
Australia	0.2	—	0.2	0.8	0.2	1.0
Denmark	—	—	—	0.5	—	0.5
France	0.5	0.1	0.6	2.6	0.4	3.0
Germany	—	—	—	0.6	0.2	0.8
Italy	—	—	—	0.1	—	0.1
Netherlands	0.3	0.2	0.5	1.4	0.2	1.6
Spain	0.4	—	0.4	0.5	0.1	0.6
Sweden	0.1	—	0.1	0.3	0.1	0.4
Switzerland	—	—	—	0.7	—	0.7
United Kingdom	1.3	0.4	1.7	1.1	0.5	1.6
United States	1.0	0.2	1.2	1.5	0.1	1.6
Other	0.4	0.1	0.5	1.8	0.2	2.0
Total	4.2	1.0	5.2	11.9	2.0	13.9
Assets of operations classified as held for sale	—	—	—	—	—	—
Total (excluding assets held for sale)	4.2	1.0	5.2	11.9	2.0	13.9
2017 Total	4.4	1.0	5.4	12.1	2.5	14.6

Net of non-controlling interests, our direct shareholder assets exposure to worldwide bank debt securities is £5.2 billion (2017: £5.4 billion). The majority of our holding (81%) is in senior debt. The primary exposures are to UK (33%), US (23%), French (12%) and Dutch (10%) banks.

Net of non-controlling interests, the participating fund exposures to worldwide bank debt securities, where the risk to our shareholders is governed by the nature and extent of our participation within those funds, is £13.9 billion (2017: £14.6 billion). The majority of the exposure (86%) is in senior debt. Participating funds are the most exposed to French (22%), UK (12%), Dutch (12%) and US (12%) banks.

Direct shareholder and participating fund assets exposures to worldwide bank debt securities (gross of non-controlling interests, excluding policyholder assets)

	Shareholder assets			Participating fund assets		
	Total senior debt £bn	Total subordinated debt £bn	Total debt £bn	Total senior debt £bn	Total subordinated debt £bn	Total debt £bn
2018						
Australia	0.2	—	0.2	0.8	0.2	1.0
Denmark	—	—	—	0.5	—	0.5
France	0.5	0.1	0.6	2.7	0.4	3.1
Germany	—	—	—	0.7	0.2	0.9
Italy	—	—	—	0.2	—	0.2
Netherlands	0.3	0.2	0.5	1.5	0.2	1.7
Spain	0.4	—	0.4	0.5	0.1	0.6
Sweden	0.1	—	0.1	0.3	0.1	0.4
Switzerland	—	—	—	0.7	—	0.7
United Kingdom	1.3	0.4	1.7	1.2	0.5	1.7
United States	1.0	0.2	1.2	1.6	0.1	1.7
Other	0.4	0.1	0.5	1.9	0.2	2.1
Total	4.2	1.0	5.2	12.6	2.0	14.6
Assets of operations classified as held for sale	—	—	—	—	—	—
Total (excluding assets held for sale)	4.2	1.0	5.2	12.6	2.0	14.6
2017 Total	4.4	1.0	5.4	12.5	2.5	15.0

Gross of non-controlling interests, our direct shareholder assets exposure to worldwide bank debt securities is £5.2 billion (2017: £5.4 billion). The majority of our holding (81%) is in senior debt. The primary exposures are to UK (33%), US (23%), French (12%) and Dutch (10%) banks.

Gross of non-controlling interests, the participating fund exposures to worldwide bank debt securities, where the risk to our shareholders is governed by the nature and extent of our participation within those funds, is £14.6 billion (2017: £15.0 billion). The majority of the exposure (86%) is in senior debt. Participating funds are most exposed to French (21%), UK (12%), Dutch (12%) and US (12%) banks.

28 – Receivables

This note analyses our total receivables.

	2018 £m	2017 £m
Amounts owed by contract holders	2,142	2,154
Amounts owed by intermediaries	1,318	1,235
Deposits with ceding undertakings	93	103
Amounts due from reinsurers	311	348
Amounts due from brokers for investment sales	295	206
Amounts receivable for collateral pledged	2,752	2,515
Amounts due from government, social security and taxes	762	744
Other receivables	1,217	1,018
Total	8,890	8,323
Less: Amounts classified as held for sale	(11)	(38)
	8,879	8,285
Expected to be recovered in less than one year	8,855	8,278
Expected to be recovered in more than one year	35	45
	8,890	8,323

Concentrations of credit risk with respect to receivables are limited due to the size and spread of the Group's trading base. No further credit risk provision is therefore required in excess of provisions already recognised for doubtful receivables.

29 – Deferred acquisition costs

(a) Deferred acquisition costs – carrying amount

The carrying amount of deferred acquisition costs was as follows:

	2018 £m	2017 £m
Deferred acquisition costs in respect of:		
Insurance contracts – Long-term business	931	858
Insurance contracts – General insurance and health business	1,088	1,110
Participating investment contracts – Long-term business	101	33
Non-participating investment contracts – Long-term business	1,036	1,071
Retail fund management business	—	2
Total	3,156	3,074
Less: Amounts classified as held for sale	(191)	(168)
	2,965	2,906

Deferred acquisition costs (DAC) on long-term business are generally recoverable in more than one year whereas such costs on general insurance and health business are generally recoverable within one year. Of the above total, £1,879 million (2017: £1,521 million) is expected to be recovered in more than one year after the statement of financial position date. For long-term business where amortisation of the DAC balance depends on projected profits, the amount expected to be recovered is estimated and actual experience will differ.

(b) Deferred acquisition costs – movements in the year

The movements in deferred acquisition costs during the year were:

2018	Long-term business					Total £m
	Insurance contracts £m	Participating investment contracts £m	Non- participating investment contracts £m	General insurance and health business £m	Retail fund management business £m	
Carrying amount at 1 January	858	33	1,071	1,110	2	3,074
Acquisition costs deferred during the year	265	13	87	2,279	—	2,644
Amortisation	(141)	(9)	(140)	(2,282)	(2)	(2,574)
Impact of assumption changes	14	1	16	—	—	31
Effect of portfolio transfers, acquisitions and disposals	(5)	—	—	(10)	—	(15)
Foreign exchange rate movements	2	1	2	(9)	—	(4)
Other movements ¹	(62)	62	—	—	—	—
Carrying amount at 31 December	931	101	1,036	1,088	—	3,156
Less: Amounts classified as held for sale	—	—	(191)	—	—	(191)
	931	101	845	1,088	—	2,965

1 Following the adoption of IFRS 15, the categorisation of DAC balances has been analysed resulting in a transfer of £62m from insurance contracts to participating investment contracts.

29 – Deferred acquisition costs continued

	Long-term business					Total £m
	Insurance contracts £m	Participating investment contracts £m	Non- participating investment contracts £m	General insurance and health business £m	Retail fund management business £m	
2017						
Carrying amount at 1 January	694	19	861	1,037	3	2,614
Acquisition costs deferred during the year	200	—	106	2,418	—	2,724
Amortisation	(76)	14	(92)	(2,369)	(1)	(2,524)
Impact of assumption changes	—	—	192	—	—	192
Effect of portfolio transfers, acquisitions and disposals	26	—	—	25	—	51
Foreign exchange rate movements	14	—	4	1	—	19
Other movements	—	—	—	(2)	—	(2)
Carrying amount at 31 December	858	33	1,071	1,110	2	3,074
Less: Amounts classified as held for sale	(34)	—	(124)	(10)	—	(168)
	824	33	947	1,100	2	2,906

DAC for long-term business increased over 2018 mainly due to new business sales across various European markets. DAC for general insurance and health business decreased slightly over 2018 mainly due to the disposal of Avipop in Italy.

Where amortisation of the DAC balance depends on projected profits, changes to economic conditions may lead to a movement in the DAC balance and a corresponding impact on profit. It is estimated that the movement in the DAC balance would reduce profit by £40 million (2017: £38 million) if market yields on fixed income investments were to increase by 1% and increase profit by £39 million (2017: £29 million) if yields were to reduce by 1%. At both 31 December 2018 and 31 December 2017 the DAC balance has been restricted by the value of projected future profits and hence is more sensitive to changes in the value of those projected profits.

30 – Pension surpluses, other assets, prepayments and accrued income

(a) Pension surpluses and other assets – carrying amount

The carrying amount comprises:

	2018 £m	2017 £m
Surpluses in the staff pension schemes (note 51(a))	3,256	3,399
Other assets	85	71
Total	3,341	3,470
Less: Amounts classified as held for sale	—	(2)
	3,341	3,468

Surpluses in the staff pension schemes and £1 million (2017: £9 million) of other assets are recoverable more than one year after the statement of financial position date.

(b) Prepayments and accrued income

Prepayments and accrued income of £2,951 million (2017: £2,876 million) include assets classified as held for sale of £4 million (2017: £16 million) and £9 million (2017: £7 million) that is expected to be recovered more than one year after the statement of financial position date.

31 – Assets held to cover linked liabilities

Certain unit-linked products have been classified as investment contracts, while some are included within the definition of an insurance contract. The assets backing these unit-linked liabilities are included within the relevant balances in the consolidated statement of financial position, while the liabilities are included within insurance and investment contract provisions. This note analyses the carrying values of assets backing these liabilities.

	2018 £m	2017 £m
Loans	9	8
Debt securities	29,472	30,987
Equity securities	67,152	74,110
Reinsurance assets	4,099	6,103
Cash and cash equivalents	14,455	12,000
Units trusts and other investment vehicles	41,954	42,368
Other	8,043	7,059
Total	165,184	172,635
Less: Assets classified as held for sale	(7,784)	(8,013)
	157,400	164,622

The reinsurance assets balance in the table above includes £4,009 million (2017: £6,094 million) of non-participating investment contracts, which are legally reinsurance but do not meet the definition of a reinsurance contract under IFRS. These assets are financial instruments measured at fair value through profit and loss and are classified as Level 1 assets.

32 – Ordinary share capital

This note gives details of Aviva plc's ordinary share capital and shows the movements during the year.

(a) Details of the Company's ordinary share capital are as follows:

	2018 £m	2017 £m
The allotted, called up and fully paid share capital of the Company at 31 December 2018 was:		
3,902,352,211 (2017: 4,012,682,691) ordinary shares of 25 pence each	975	1,003

At the 2018 Annual General Meeting, the Company was authorised to allot up to a further maximum nominal amount of:

- £668,883,564 of which £334,441,782 can be in connection with an offer by way of a rights issue
- £100 million of new ordinary shares in relation to any issue of Solvency II compliant capital instruments

(b) During 2018, a total of 119,491,188 ordinary shares of 25 pence each were cancelled and 9,160,708 were allotted and issued by the Company as follows:

	2018				2017			
	Number of shares	Share capital £m	Capital redemption reserve £m	Share premium £m	Number of shares	Share capital £m	Capital redemption reserve £m	Share premium £m
At 1 January	4,012,682,691	1,003	14	1,207	4,061,539,206	1,015	—	1,197
Shares issued under the Group's Employee and Executive Share Option Schemes	9,160,708	2	—	7	8,867,985	2	—	10
Shares cancelled through buy-back	(119,491,188)	(30)	30	—	(57,724,500)	(14)	14	—
At 31 December	3,902,352,211	975	44	1,214	4,012,682,691	1,003	14	1,207

Ordinary shares in issue in the Company rank pari passu with any new ordinary shares issued in the Company. All the ordinary shares in issue carry the same right to receive all dividends and other distributions declared, made or paid by the Company.

On 18 September 2018, the Company announced that it had successfully completed the share buy-back programme (the 2018 programme) which was notified to the market on 1 May 2018. As a result of the 2018 programme, Aviva acquired 119,491,188 shares at an average price of £5.0213 per share. These shares with a nominal value of £30 million were bought back and subsequently cancelled during the year, giving rise to a capital redemption reserve of an equivalent amount as required by the Companies Act 2006. The aggregate consideration paid was £600 million which is reflected in retained earnings (see note 39).

On 20 September 2017, the Company announced that it had successfully completed the share buy-back programme (the 2017 programme) which was notified to the market on 25 May 2017. As a result of the 2017 programme, Aviva acquired 57,724,500 shares at an average price of £5.20 per share. These shares with a nominal value of £14 million were bought back and subsequently cancelled during the year, giving rise to a capital redemption reserve of an equivalent amount as required by the Companies Act 2006. The aggregate consideration paid was £300 million which is reflected in retained earnings (see note 39).

33 – Group's share plans

This note describes various equity compensation plans operated by the Group, and shows how the Group values the options and awards of shares in the Company.

(a) Description of the plans

The Group maintains a number of active share option and award plans and schemes (the Group's share plans). These are as follows:

(i) Savings-related options

These are options granted under the tax-advantaged Save As You Earn (SAYE) share option scheme in the UK and Irish revenue-approved SAYE share option scheme in Ireland. The SAYE allows eligible employees to acquire options over the Company's shares at a discount of up to 20% of their market value at the date of grant.

Options are normally exercisable during the six month period following either the third or fifth anniversary of the start of the relevant savings contract. Seven year contracts were offered prior to 2012. Savings contracts are subject to the statutory savings limits of £500 per month in the UK and €500 per month in Ireland. A limit of £250 per month was applied to contracts in the UK prior to 2016.

(ii) Aviva long-term incentive plan awards

These awards have been made under the Aviva Long-Term Incentive Plan 2011 (LTIP), and are described in section (b) below and in the directors' remuneration report.

(iii) Aviva annual bonus plan awards

These awards have been made under the Aviva Annual Bonus Plan 2011 (ABP), and are described in section (b) below and in the directors' remuneration report.

(iv) Aviva recruitment and retention share plan awards

These are conditional awards granted under the Aviva Recruitment and Retention Share Award plan (RRSAP) in relation to the recruitment or retention of senior managers excluding executive directors. The awards vest in tranches on various dates and vesting is conditional upon the participant being employed by the Group on the vesting date and not having served notice of resignation. Some awards can be subject to performance conditions. If a participant's employment is terminated due to resignation or dismissal, any tranche of the award which has vested within the 12 months prior to the termination date will be subject to clawback and any unvested tranches of the award will lapse in full.

(v) Aviva Investors deferred share award plan awards

These awards have been made under the Aviva Investors Deferred Share Award Plan (AI DSAP), where employees can choose to have the deferred element of their bonus deferred into awards over Aviva shares. The awards vest in three equal tranches on the second, third and fourth year following the year of grant.

(vi) Aviva Investors long-term incentive plan awards

These awards have been made under the Aviva Investors Long-Term Incentive Plan 2015 (AI LTIP)

(vii) Various all employee share plans

The Company maintains a number of active stock option and share award voluntary schemes:

- The global matching share plan
- Aviva Group employee share ownership scheme
- Aviva France employee profit sharing scheme.

No new Aviva plc ordinary shares will be issued to satisfy awards made under plans iv, v, vi, vii b) or vii c).

(b) Outstanding options and awards

(i) Share options

At 31 December 2018, options to subscribe for ordinary shares of 25 pence each in the Company were outstanding as follows:

Aviva savings related share option scheme	Option price p	Number of shares	Normally exercisable	Option price p	Number of shares	Normally exercisable
	268	145,323	2018	351	10,508,734	2019 or 2021
	312	267,209	2018	409	4,694,393	2020 or 2022
	380	3,856,295	2018 or 2020	387	7,563,395	2021 or 2023
	419	400,885	2019			
Aviva Ireland savings related share option scheme (in euros)	Option price c	Number of shares	Normally exercisable	Option price c	Number of shares	Normally exercisable
	369	8,259	2018	418	436,262	2019 or 2021
	518	107,293	2018 or 2020	447	233,305	2020 or 2022
	527	11,489	2019	432	425,184	2021 or 2023

33 – Group's share plans continued

The following table summarises information about options outstanding at 31 December 2018:

Range of exercise prices	Outstanding options Number	Weighted average remaining contractual life Years	Weighted average exercise price p
£2.66 – £3.16	420,791	1	296.80
£3.17 – £3.67	10,944,996	2	351.00
£3.68 – £4.19	17,292,239	2	392.43

The comparative figures as at 31 December 2017 were:

Range of exercise prices	Outstanding options Number	Weighted average remaining contractual life Years	Weighted average exercise price p
£2.66 – £3.16	960,378	1	288.10
£3.17 – £3.67	12,227,442	3	351.00
£3.68 – £4.19	11,908,758	3	397.83

(ii) Share awards

At 31 December 2018, awards issued under the Company's executive incentive plans over ordinary shares of 25 pence each in the Company were outstanding as follows:

Aviva long-term incentive plan 2011	Number of shares	Year of vesting
	9,151,821	2019
	6,745,024	2020
	7,898,212	2021
Aviva annual bonus plan 2011	Number of shares	Year of vesting
	5,452,009	2019
	2,764,620	2020
	2,008,514	2021
Aviva recruitment and retention share award plan	Number of shares	Year of vesting
	706,643	2019
	268,812	2020
	83,855	2021
	17,269	2022
Aviva Investors deferred share award plan	Number of shares	Year of vesting
	101,695	2019
	86,024	2020
	50,300	2021
Aviva Investors long-term incentive plan 2015	Number of shares	Year of vesting
	313,419	2020
The global matching share plan	Number of shares	Year of vesting
	20,421	2019
	682,944	2020
	629,422	2021

The vesting of awards under the LTIP is subject to the attainment of performance conditions as described in the directors' remuneration report.

No performance conditions are attached to the awards under the ABP, AI DSAP or some of the awards under the RRSAP except as outlined below. There are no performance conditions attached to LTIP awards granted since 2017, with the exception of grants made to the Group Executive.

Under the RRSAP, some shares are subject to the attainment of the same performance conditions that apply to the LTIP grants as follows:

- Shares which vest in 2019:
 - 102,602 are subject to the same performance conditions that apply to the 2016 LTIP grant
 - 144,980 are subject to the performance conditions relating to the performance of the participant's previous employer
- Shares which vest in 2020:
 - 53,246 are subject to the performance conditions relating to the performance of the participant's previous employer
- Shares which vest in 2021:
 - 5,305 are subject to the performance conditions relating to the performance of the participant's previous employer

These performance conditions are as outlined in the relevant year's directors' remuneration report. Shares which do not vest will lapse.

33 – Group's share plans continued

(iii) Shares to satisfy awards and options

New issue shares are now generally used to satisfy all awards and options granted under plans that have received shareholder approval and where local regulations permit. Further details are given in note 32.

(c) Movements in the year

A summary of the status of the option plans as at 31 December 2017 and 2018, and changes during the years ended on those dates, is shown below.

	2018		2017	
	Number of options	Weighted average exercise price p	Number of options	Weighted average exercise price p
Outstanding at 1 January	25,096,578	370.81	24,253,209	355.08
Granted during the year	8,139,367	387.00	5,998,098	409.00
Exercised during the year	(2,111,514)	361.96	(3,094,372)	327.04
Forfeited during the year	(1,855,638)	385.00	(944,431)	364.03
Cancelled during the year	(495,646)	364.93	(1,004,017)	361.90
Expired during the year	(115,121)	381.97	(111,909)	355.32
Outstanding at 31 December	28,658,026	375.20	25,096,578	370.81
Exercisable at 31 December	3,457,732	369.88	911,019	366.51

(d) Expense charged to the income statement

The total expense recognised for the year arising from equity compensation plans were as follows:

	2018 £m	2017 £m
Equity-settled expense	64	77
Cash-settled expense	—	—
Total (note 11(b))	64	77

(e) Fair value of options and awards granted after 7 November 2002

The weighted average fair values of options and awards granted during the year, estimated by using the Binomial option pricing model and Monte Carlo Simulation model, were £0.78 and £4.84 (2017: £1.00 and £4.94) respectively.

(i) Share options

The fair value of the options was estimated on the date of grant, based on the following weighted average assumptions:

Weighted average assumption	2018	2017
Share price	480p	506p
Exercise price	387p	409p
Expected volatility	24.85%	26.04%
Expected life	3.67 years	3.70 years
Expected dividend yield	5.88%	4.61%
Risk-free interest rate	1.05%	0.55%

The expected volatility used was based on the historical volatility of the share price over a period equivalent to the expected life of the option prior to its date of grant. The risk-free interest rate was based on the yields available on UK government bonds as at the date of grant. The bonds chosen were those with a similar remaining term to the expected life of the options. 2,111,514 options granted after 7 November 2002 were exercised during the year (2017: 3,094,372).

(ii) Share awards

The fair value of the awards was estimated on the date of grant based on the following weighted average assumptions:

Weighted average assumption	2018	2017
Share price	500p	523p
Expected volatility ¹	25%	28%
Expected volatility of comparator companies' share price ¹	25%	26%
Correlation between Aviva and comparator competitors' share price ¹	64%	59%
Expected life ¹	2.64 years	2.76 years
Expected dividend yield ²	0.00%	0.00%
Risk-free interest rate ¹	0.80%	0.59%

¹ For awards with market-based performance conditions only.

² Expected dividend yield assumption was only used to fair value LTIP awards issued in France. In 2017, LTIP awards with no market performance conditions were issued in France therefore this assumption was not used in the year.

The expected volatility used was based on the historical volatility of the share price over a period equivalent to the expected life of the share award prior to its date of grant. The risk-free interest rate was based on the yields available on UK government bonds as at the date of grant. The bonds chosen were those with a similar remaining term to the expected life of the share awards.

34 – Treasury shares

The following table summarises information about treasury shares at 31 December 2018:

	2018		2017	
	Number	£m	Number	£m
Shares held by employee trusts	455,986	2	295,906	1
Shares held by subsidiary companies	2,435,983	13	2,471,599	13
	2,891,969	15	2,767,505	14

(a) Shares held by employee trusts

Prior to 2014, we satisfied awards and options granted under the Group's share plans primarily through shares purchased in the market and held by employee share trusts. From 2014 we primarily issue new shares except where it is necessary to use shares held by an employee share trust. This note gives details of the shares held in these trusts. Movements in the carrying value of shares held by employee trusts comprise:

	2018		2017	
	Number	£m	Number	£m
Cost debited to shareholders' funds				
At 1 January	295,906	1	1,127,473	1
Acquired in the year	765,582	4	236,585	1
Distributed in the year	(605,502)	(3)	(1,068,152)	(1)
Balance at 31 December	455,986	2	295,906	1

The shares are owned by employee share trusts with an undertaking to satisfy awards of shares in the Company under the Company's share plans and schemes. Details of the features of the plans can be found in the directors' remuneration report and/or in note 33.

These shares were either purchased in the market or, in 2015, new shares were issued to the trust and are carried at weighted average cost. At 31 December 2018, they had an aggregate nominal value of £113,997 (2017: £73,977) and a market value of £1,712,227 (2017: £1,498,764). The trustees have waived their rights to dividends on the shares held in the trusts.

(b) Shares held by subsidiary companies

At 31 December 2018, the balance of shares held by subsidiary companies of 2,435,983 (2017: 2,471,599 shares) had an aggregate nominal value of £608,996 (2017: £617,900) and a market value of £9,148,336 (2017: £13,295,284).

35 – Preference share capital

This note gives details of Aviva plc's preference share capital.

The preference share capital of the Company at 31 December was:

	2018 £m	2017 £m
Issued and paid up		
100,000,000 8.375% cumulative irredeemable preference shares of £1 each	100	100
100,000,000 8.75% cumulative irredeemable preference shares of £1 each	100	100
	200	200

The issued preference shares are non-voting except where their dividends are in arrears, on a winding up or where their rights are altered.

On a winding up, they carry a preferential right of return of capital ahead of the ordinary shares. Holders are entitled to receive dividends out of the profits available for distribution and resolved to be distributed in priority to the payment of dividends to holders of ordinary shares. The Company does not have a contractual obligation to deliver cash or other financial assets to the preference shareholders and therefore the directors may make dividend payments at their discretion.

At the end of 2018 the fair value of Aviva plc's preference share capital was £264 million (2017: £348 million).

Following our statement at the full year 2017 results that we "have the ability to cancel our preference shares", Aviva listened to the views of investors, who expressed concerns, and as a result Aviva subsequently announced on 23 March 2018 that it had decided to take "no action to cancel its preference shares". Under current regulation the preference shares will no longer count as regulatory capital in 2026. Aviva will work towards obtaining regulatory approval for the preference shares, or a suitable substitute, to qualify as capital from 2026 onwards. If as we approach 2026 Aviva needs to reconsider this position, it will do so after taking into account the fair market value of the preference shares at that time.

On 30 April 2018 Aviva announced a charge of £14 million relating to a provision for the goodwill payment scheme to those preference shareholders who sold preference shares in the period from 8 and 22 March (inclusive) at a share price that was lower than the price that the preference shares returned to following the announcement on 23 March 2018. The total cost of the goodwill payment scheme was £10 million relating to the goodwill payments to preference shareholders, and associated administration costs, against our initial estimate of £14 million. The nature of these costs and the restricted time-period that defines eligibility to receive a payment demonstrates that they are non-recurrent and are not reflective of the Group's ongoing financial performance.

At the 2015 Annual General Meeting, the Company was authorised to allot sterling new preference shares, as defined in the Company's articles of association, up to a maximum nominal value of £500 million.

36 – Direct capital instrument and tier 1 notes

Notional amount	2018 £m	2017 £m
5.9021% £500 million direct capital instrument – Issued November 2004	500	500
6.875% £210 million STICS – Issued November 2003	231	231
Total	731	731

The direct capital instrument (the DCI) was issued on 25 November 2004. The DCI has no fixed redemption date but the Company may, at its sole option, redeem all (but not part) of the principal amount on 27 July 2020, at which date the interest rate changes to a variable rate, or on any respective coupon payment date thereafter. The variable rate will be the six month sterling deposit rate plus margin.

The Step-up Tier one Insurance Capital Securities ('STICS') were issued on 21 November 2003 by Friends Life Holdings plc, substituted as issuer by Aviva plc on 1 October 2015. The STICS are irrevocably guaranteed on a subordinated basis by Aviva Life & Pensions UK Limited. Prior to the Part VII transfer of the Friends Life business into UK Life on 1 October 2017 the guarantor for the STICS was Friends Life Limited. The STICS have no fixed redemption date but the Company may, at its sole option, redeem the instrument (in whole or in part) on 21 November 2019, or on the coupon payment date falling on successive fifth anniversaries from this date. For each coupon period beginning 21 November 2019, the STICS will bear interest reset every five years at the rate per annum which is the aggregate of 2.97% and the Gross Redemption Yield of the Benchmark Gilt.

The Company has the option to defer coupon payments on the DCI and the STICS on any relevant payment date.

In relation to the DCI, deferred coupons shall only be satisfied should the Company exercise its sole option to redeem the instruments.

In relation to the STICS, deferred coupons may be satisfied at any time, at the sole option of the Company. The Company is required to satisfy deferred coupons upon the earliest of the following:

- Resumption of payment of coupons on the STICS; or
- Redemption; or
- The commencement of winding up of the issuer.

No interest will accrue on any deferred coupon on the DCI. Interest will accrue on deferred coupons on the STICS at the then current rate of interest on the STICS.

Deferred coupons on the DCI and the STICS will be satisfied by the issue and sale of ordinary shares in the Company at their prevailing market value, to a sum as near as practicable to (and at least equal to) the relevant deferred coupons. In the event of any coupon deferral, the Company will not declare or pay any dividend on its ordinary or preference share capital. These instruments have been treated as equity. Please refer to accounting policy AE.

At the end of 2018 the fair value of the DCI and the STICS was £722 million (2017: £778 million).

37 – Merger reserve

Prior to 1 January 2004, certain significant business combinations were accounted for using the 'pooling of interests method' (or merger accounting), which treats the merged groups as if they had been combined throughout the current and comparative accounting periods. Merger accounting principles for these combinations gave rise to a merger reserve in the consolidated statement of financial position, being the difference between the nominal value of new shares issued by the Parent Company for the acquisition of the shares of the subsidiary and the subsidiary's own share capital and share premium account.

The merger reserve is also used where more than 90% of the shares in a subsidiary are acquired and the consideration includes the issue of new shares by the Company, thereby attracting merger relief under the Companies Act 1985 and, from 1 October 2009, the Companies Act 2006.

The balance of the merger reserve at 31 December 2018 is £8,974 million (2017: £8,974 million).

38 – Currency translation and other reserves

This note gives details of the currency translation and other reserves forming part of the Group's consolidated equity and shows the movements during the year net of non-controlling interests:

	Other reserves					
	Currency translation reserve (see accounting policy E) £m	Owner occupied properties reserve (see accounting policy P) £m	Investment valuation reserve (see accounting policy T) £m	Hedging instruments reserve (see accounting policy U) £m	Equity compensation reserve (see accounting policy AB) £m	Total £m
Balance at 1 January 2017	1,146	28	59	(514)	78	(349)
Arising in the year through other comprehensive income:						
Fair value losses	—	(1)	(7)	—	—	(8)
Fair value gains transferred to profit on disposals	—	—	(2)	—	—	(2)
Share of other comprehensive income of joint ventures and associates	—	—	6	—	—	6
Foreign exchange rate movements ¹	125	—	—	(100)	—	(100)
Aggregate tax effect – shareholders' tax	(4)	2	9	—	—	11
Total other comprehensive income for the year	121	1	6	(100)	—	(93)
Fair value gains transferred to retained earnings on disposals	—	(2)	—	—	—	(2)
Transfer to profit on disposal of subsidiaries, joint ventures and associates	(126)	(1)	—	138	—	137
Changes in non-controlling interests in subsidiaries	—	—	—	—	—	—
Reserves credit for equity compensation plans	—	—	—	—	77	77
Shares issued under equity compensation plans	—	—	—	—	(44)	(44)
Balance at 31 December 2017	1,141	26	65	(476)	111	(274)
Arising in the year through other comprehensive income:						
Fair value gains	—	1	57	—	—	58
Fair value gains transferred to profit on disposals	—	—	(78)	—	—	(78)
Share of other comprehensive income of joint ventures and associates	—	—	(10)	—	—	(10)
Foreign exchange rate movements ¹	27	—	—	(27)	—	(27)
Aggregate tax effect – shareholders' tax	1	—	7	—	—	7
Total other comprehensive income for the year	28	1	(24)	(27)	—	(50)
Fair value gains transferred to retained earnings on disposals	—	—	—	—	—	—
Transfer to profit on disposal of subsidiaries, joint ventures and associates	(40)	—	(1)	37	—	36
Changes in non-controlling interests in subsidiaries	(7)	—	—	—	—	—
Reserves credit for equity compensation plans	—	—	—	—	64	64
Shares issued under equity compensation plans	—	—	—	—	(55)	(55)
Balance at 31 December 2018	1,122	27	40	(466)	120	(279)

¹ Foreign exchange rate movements recorded in the consolidated statement of comprehensive income of £5 million (2017: £68 million) relate to the currency translation reserve of £27 million (2017: £125 million), the hedging instrument reserve of £(27) million (2017: £(100) million) and non-controlling interests (refer to note 40) of £5 million (2017: £43 million).

39 – Retained earnings

This note analyses the movements in the consolidated retained earnings during the year.

	2018 £m	2017 £m
Balance at 1 January	4,918	4,835
Profit for the year attributable to equity shareholders	1,568	1,497
Remeasurements of pension schemes ¹ (note 51)	(279)	(5)
Dividends and appropriations (note 16)	(1,189)	(1,081)
Shares purchased in buy-back (note 32)	(600)	(300)
Net shares issued under equity compensation plans	49	42
Effect of changes in non-controlling interests in existing subsidiaries	1	—
Forfeited dividend income ²	4	—
Transfer from other reserves on disposal of subsidiaries, joint ventures and associates (note 38)	—	1
Reclassification of tier 1 notes to financial liabilities (note 36)	—	(92)
Fair value gains realised from other reserves (note 38)	—	2
Aggregate tax effect	51	19
Balance at 31 December	4,523	4,918

¹ Net remeasurements of pension schemes recorded in the consolidated statement of comprehensive income of £279 million loss (2017: £5 million loss) includes £280 million of remeasurement losses (2017: £5 million losses) on the main pension schemes (refer to note 51) with a small amount of gains in relation to other schemes.

² The Group has commenced a shareholder forfeiture programme, where the shares of shareholders with whom Aviva has lost contact over the last 12 years will be forfeited and sold on. Any associated unclaimed dividends will be reclaimed by the Group. After covering administration costs, the majority of the money will be put into a charitable foundation.

The Group's regulated subsidiaries are required to hold sufficient capital to meet acceptable solvency levels based on applicable local regulations. Their ability to transfer retained earnings to the UK parent companies is therefore restricted to the extent these earnings form part of local regulatory capital.

40 – Non-controlling interests

This note gives details of the Group's non-controlling interests and shows the movements during the year.

Non-controlling interests at 31 December comprised:

	2018 £m	2017 £m
Equity shares in subsidiaries	288	423
Share of earnings	415	288
Share of other reserves	13	274
	716	985
Preference shares in General Accident plc	250	250
	966	1,235

Movements in the year comprised:

	2018 £m	2017 £m
Balance at 1 January	1,235	1,425
Profit for the year attributable to non-controlling interests	119	149
Foreign exchange rate movements	5	43
Total comprehensive income attributable to non-controlling interests	124	192
Capital contributions from non-controlling interests	3	36
Non-controlling interests share of dividends declared in the year	(90)	(103)
Changes in non-controlling interests in subsidiaries ¹	(306)	(315)
Balance at 31 December	966	1,235

¹ Changes in non-controlling interests in 2018 primarily relate to the sale of the Group's shareholdings in Avipop (Italy), the sale of the life insurance and pension joint ventures Caja Murcia Vida and Caja Granada Vida (Spain) and the change in control status of Hong Kong. Refer to note 4 for more information. Changes in non-controlling interests in 2017 primarily relate to Aviva's sale of its 50% shareholding in Antarius (France), the sale of its 50% shareholding in life insurance and pension partnerships Unicorp Vida and Caja España Vida (Spain) and the consolidation of joint venture insurance operations in Poland, effective 1 January 2017, as a result of changes to the shareholders' agreement.

The Group has no subsidiaries whose non-controlling interest is material on the basis of their share of profit or loss.

41 – Contract liabilities and associated reinsurance

The Group's liabilities for insurance and investment contracts it has sold, and the associated reinsurance, is covered in the following notes:

- Note 42 covers insurance liabilities
- Note 43 covers the methodology and assumptions used in calculating the insurance liabilities
- Note 44 covers liabilities for investment contracts
- Note 45 details the financial guarantees and options on certain contracts
- Note 46 details the associated reinsurance assets on these liabilities
- Note 47 shows the effects of changes in the assumptions on the liabilities

(a) Carrying amount

The following is a summary of the contract liabilities and related reinsurance assets as at 31 December.

	2018			2017		
	Gross provisions £m	Reinsurance assets £m	Net £m	Gross provisions £m	Reinsurance assets £m	Net £m
Long-term business						
Insurance liabilities	(125,829)	5,836	(119,993)	(130,972)	5,469	(125,503)
Liabilities for participating investment contracts	(90,455)	1	(90,454)	(87,654)	2	(87,652)
Liabilities for non-participating investment contracts	(120,354)	4,009	(116,345)	(124,995)	6,094	(118,901)
	(336,638)	9,846	(326,792)	(343,621)	11,565	(332,056)
Outstanding claims provisions	(2,001)	89	(1,912)	(1,798)	64	(1,734)
	(338,639)	9,935	(328,704)	(345,419)	11,629	(333,790)
General insurance and health						
Outstanding claims provisions	(9,046)	789	(8,257)	(8,964)	845	(8,119)
Provisions for claims incurred but not reported	(2,360)	822	(1,538)	(2,837)	884	(1,953)
	(11,406)	1,611	(9,795)	(11,801)	1,729	(10,072)
Provision for unearned premiums	(4,946)	254	(4,692)	(4,980)	257	(4,723)
Provision arising from liability adequacy tests ¹	(16)	—	(16)	(13)	—	(13)
	(16,368)	1,865	(14,503)	(16,794)	1,986	(14,808)
Total	(355,007)	11,800	(343,207)	(362,213)	13,615	(348,598)
Less: Amounts classified as held for sale	8,462	(45)	8,417	9,577	(123)	9,454
	(346,545)	11,755	(334,790)	(352,636)	13,492	(339,144)

¹ Provision arising from liability adequacy tests relates to general insurance business only. Liability adequacy test provisions for life operations, where applicable, are included in other line items. At 31 December 2018 this provision is nil for the life operations.

41 – Contract liabilities and associated reinsurance continued

(b) Change in contract liabilities, net of reinsurance, recognised as an expense

The purpose of the following table is to reconcile the change in insurance liabilities, net of reinsurance, shown on the income statement (note 7), to the change in insurance liabilities recognised as an expense in the relevant movement tables in the following notes. The components of the reconciliation are the change in provision for outstanding claims on long-term business (which is not included in a separate movement table), and the unwind of discounting on general insurance reserves (which is included within finance costs in the income statement). For general insurance and health, the change in the provision for unearned premiums is not included in the reconciliation as, within the income statement, this is included within earned premiums.

2018	Gross £m	Reinsurance £m	Net £m
Long-term business			
Change in insurance liabilities (note 42(b)(iii))	(6,284)	61	(6,223)
Change in provision for outstanding claims	190	(11)	179
	(6,094)	50	(6,044)
General insurance and health			
Change in insurance liabilities (note 42(c)(iii) and 46(c)(ii)) ¹	(313)	111	(202)
Less: Unwind of discount	(8)	8	—
	(321)	119	(202)
Total change in insurance liabilities (note 7)	(6,415)	169	(6,246)
¹ Includes £(190) million in the UK General Insurance and health business relating to a change in the discount rate used for estimating lump sum payments in the settlement of bodily injury claims.			
2017	Gross £m	Reinsurance £m	Net £m
Long-term business			
Change in insurance liabilities (note 42(b)(iii))	624	315	939
Change in provision for outstanding claims	(65)	(11)	(76)
	559	304	863
General insurance and health			
Change in insurance liabilities (note 42(c)(iii) and 46(c)(ii))	73	138	211
Less: Unwind of discount	(9)	9	—
	64	147	211
Total change in insurance liabilities (note 7)	623	451	1,074

For non-participating investment contracts, deposits collected and amounts withdrawn are not shown on the income statement, but are accounted for directly through the statement of financial position as an adjustment to the gross liabilities for investment contracts. The associated change in investment contract provisions shown on the income statement consists of the attributed investment return. For participating investment contracts, the change in investment contract provisions on the income statement primarily consists of the movement in participating investment contract liabilities (net of reinsurance) over the reporting period.

42 – Insurance liabilities

This note analyses the Group's gross insurance contract liabilities for the long-term and general insurance and health business, describes how the Group calculates these liabilities and presents the movement in these liabilities during the year.

(a) Carrying amount

Insurance liabilities (gross of reinsurance) at 31 December comprised:

	2018 £m	2017 £m
Long-term business		
Participating insurance liabilities	40,840	49,928
Unit-linked non-participating insurance liabilities	14,480	16,040
Other non-participating insurance liabilities	70,509	65,004
	125,829	130,972
Outstanding claims provisions	2,001	1,798
	127,830	132,770
General insurance and health		
Outstanding claims provisions	9,046	8,964
Provision for claims incurred but not reported	2,360	2,837
	11,406	11,801
Provision for unearned premiums	4,946	4,980
Provision arising from liability adequacy tests ¹	16	13
	16,368	16,794
Total	144,198	149,564
Less: Amounts classified as held for sale	(121)	(914)
	144,077	148,650

¹ Provision arising from liability adequacy tests relates to general insurance business only. Liability adequacy test provisions for life operations, where applicable, are included in other line items. At 31 December 2018 this provision is nil for the life operations.

(b) Long-term business liabilities

(i) Business description

The Group underwrites long-term business in a number of countries as follows:

- In the UK, long-term business is mainly written in the 'Non-Profit' fund and in a number of 'With-Profits' sub-funds. In the 'Non-Profit' fund shareholders are entitled to 100% of the distributed profits. In the 'With-Profits' sub-funds the with-profits policyholders are entitled to between 40% and 100% of distributed profits, depending on the fund rules. There is also the Reattributed Inherited Estate External Support Account (RIEESA), which does not itself underwrite any business, but provides capital support to one of the with-profits sub-funds and receives any surplus or deficit emerging from it. In the RIEESA, shareholders are entitled to 100% of the distributed profits, but these cannot be distributed until the 'lock-in' criteria set by the Reattribution Scheme have been met
- In France, the majority of policyholders' benefits are determined by investment performance, subject to certain guarantees, and shareholders' profits are derived largely from management fees. In addition, a substantial number of policies participate in investment returns, with the balance being attributable to shareholders
- In other operations in Europe and Asia, a range of long-term insurance and savings products are written

(ii) Group practice

The long-term business liabilities are calculated separately for each of the Group's life operations. The provisions for overseas subsidiaries have generally been included on the basis of local regulatory requirements, modified where necessary to reflect the requirements of the Companies Act 2006.

Material judgement is required in calculating the liabilities and is exercised particularly through the choice of assumptions where discretion is permitted. In turn, the assumptions used depend on the circumstances prevailing in each of the life operations. Provisions are most sensitive to assumptions regarding discount rates, mortality and morbidity rates. Where discount rate assumptions are based on current market yields on fixed interest securities, allowance is made for default risk implicit in the yields on the underlying assets.

Bonuses paid during the year are reflected in claims paid, whereas those allocated as part of the bonus declaration are included in the movements in the long-term business liabilities.

A description of the main methodology and most material valuation assumptions can be found in note 43.

42 – Insurance liabilities continued

(iii) Movements

The following movements have occurred in the gross long-term business liabilities during the year:

	2018 £m	2017 £m
Carrying amount at 1 January	130,972	137,218
Liabilities in respect of new business	6,190	5,731
Expected change in existing business	(7,952)	(7,747)
Variance between actual and expected experience	(1,844)	1,520
Impact of operating assumption changes	(1,456)	(1,175)
Impact of economic assumption changes	(959)	2,115
Other movements recognised as an expense ¹	(263)	180
Change in liability recognised as an expense (note 41(b))	(6,284)	624
Effect of portfolio transfers, acquisitions and disposals ²	788	(8,124)
Foreign exchange rate movements	413	1,252
Other movements ³	(60)	2
Carrying amount at 31 December	125,829	130,972

¹ Other movements during 2017 and 2018 primarily relate to a special bonus distribution to with-profits policyholders in the UK.

² The movement during 2018 includes the acquisition of Friends First in Ireland offset by the disposal of Spain and Avipop in Italy. The movement during 2017 primarily relates to the disposal of Antarius in France and a major share of the business in Spain offset by the consolidation of the Poland and Vietnam joint ventures.

³ Other movements during 2018 include the reclassification in France from insurance to participating investment contracts (£56) million.

For many types of long-term business, including unit-linked and participating insurance liabilities, movements in asset values are offset by corresponding changes in liabilities, limiting the net impact on profit. The gross long-term business liabilities decreased by £5.1 billion during 2018 (2017: £6.2 billion decrease) mainly driven by the variance between actual and expected experience of £(1.8) billion, which was mainly due to adverse equity returns in France and the reduction in with-profits and unit-linked liabilities in the UK; the impact of non-economic assumption changes of £(1.5) billion mainly due to updates to longevity assumptions (with the impact on profit partially offset by a corresponding reduction in reinsurance assets) in the UK; and the economic assumption changes of £(1.0) billion, which reflects an increase in valuation interest rates in response to widening credit spreads, primarily in respect of immediate annuity and participating insurance contracts in the UK.

For participating insurance liabilities, a movement in liabilities is generally offset by a corresponding adjustment to the unallocated divisible surplus and does not impact profit. Where assumption changes impact profit, these are included in the effect of changes in assumptions and estimates during the year (shown in note 47), together with the impact of movements in related non-financial assets.

(c) General insurance and health liabilities

(i) Business description

The Group underwrites general insurance and health business in a number of countries as follows:

- In the UK, providing individual and corporate customers with a wide range of insurance products
- In Canada, providing a range of personal and commercial lines products
- In Europe and Asia, providing a range of general insurance and health products

(ii) Group practice

Delays occur in the notification and settlement of claims and a substantial measure of experience and judgement is involved in assessing outstanding liabilities, the ultimate cost of which cannot be known with certainty at the statement of financial position date. The liabilities for general insurance and health business are based on information currently available. However, it is inherent in the nature of the business written that the ultimate liabilities may vary as a result of subsequent developments.

Provisions for outstanding claims are established to cover the outstanding expected ultimate liability for losses and loss adjustment expenses (LAE) in respect of all claims that have already occurred. The provisions established cover reported claims and associated LAE, as well as claims incurred but not yet reported and associated LAE.

The Group only establishes reserves for losses that have already occurred. The Group therefore does not establish catastrophe equalisation reserves that defer a share of income in respect of certain lines of business from years in which a catastrophe does not occur to future periods in which catastrophes may occur. When calculating reserves, the Group takes into account estimated future recoveries from salvage and subrogation, and a separate asset is recorded for expected future recoveries from reinsurers after considering their collectability.

42 – Insurance liabilities continued

The table below shows the total general insurance and health liabilities split by outstanding claim provisions and provision for claims incurred but not reported (IBNR provisions), gross of reinsurance, by major line of business.

	As at 31 December 2018			As at 31 December 2017		
	Outstanding claim provisions £m	IBNR provisions £m	Total claim provisions £m	Outstanding claim provisions £m	IBNR provisions £m	Total claim provisions £m
Motor	5,019	963	5,982	5,039	1,339	6,378
Property	1,833	104	1,937	1,734	114	1,848
Liability	1,856	1,164	3,020	1,814	1,270	3,084
Creditor	4	7	11	24	11	35
Other	334	122	456	353	103	456
	9,046	2,360	11,406	8,964	2,837	11,801

Outstanding claims provisions are based on undiscounted estimates of future claim payments, except for the following classes of business for which discounted provisions are held:

Class	Discount rate		Mean term of liabilities	
	2018	2017	2018	2017
Reinsured London Market business	1.0% to 2.9%	0.7% to 2.6%	10 years	9 years
Latent claims	1.0% to 2.6%	0.7% to 1.9%	11 to 18 years	8 to 17 years
Structured settlements	1.0% to 3.0%	0.5% to 3.0%	9 to 37 years	7 to 39 years

The gross outstanding claims provision before discounting was £10,955 million (2017: £11,346 million). The period of time which will elapse before the liabilities are settled has been estimated by modelling the settlement patterns of the underlying claims.

The discount rate that has been applied to latent claims reserves and reinsured London Market business is based on the swap curve in the relevant currency having regard to the expected settlement dates of the claims. The range of discount rates used depends on the duration of the claims and is given in the table above. The duration of the claims span over 35 years, with the average duration being between 10 and 18 years depending on the geographical region.

Any change in discount rates between the start and the end of the accounting period is reflected outside of Group adjusted operating profit as an economic assumption change.

(iii) Movements in general insurance and health claims liabilities

The following changes have occurred in the general insurance and health claims liabilities during the year:

	2018 £m	2017 £m
Carrying amount at 1 January	11,801	11,709
Impact of changes in assumptions ¹	(22)	(7)
Claim losses and expenses incurred in the current year	7,158	6,890
Decrease in estimated claim losses and expenses incurred in prior periods	(544)	(172)
Incurred claims losses and expenses	6,592	6,711
Less:		
Payments made on claims incurred in the current year	(3,927)	(3,642)
Payments made on claims incurred in prior periods	(3,343)	(3,283)
Recoveries on claim payments	357	278
Claims payments made in the period, net of recoveries	(6,913)	(6,647)
Unwind of discounting	8	9
Changes in claims reserve recognised as an expense (note 41(b))	(313)	73
Effect of portfolio transfers, acquisitions and disposals ²	(29)	3
Foreign exchange rate movements	(53)	16
Carrying amount at 31 December	11,406	11,801

¹ Shown gross of reinsurance. The impact of reinsurance was £23 million, resulting in a net impact of £1 million as per note 47.

² The movement during 2018 relates to the disposal of Avipop in Italy.

(iv) Movements in general insurance and health unearned premiums

The following changes have occurred in the liabilities for unearned premiums (UPR) during the year:

	2018 £m	2017 £m
Carrying amount at 1 January	4,980	4,766
Premiums written during the year	10,519	10,523
Less: Premiums earned during the year	(10,421)	(10,365)
Changes in UPR recognised as an expense/(income)	98	158
Gross portfolio transfers and acquisitions ¹	(103)	46
Foreign exchange rate movements	(29)	10
Carrying amount at 31 December	4,946	4,980

¹ The movement during 2018 relates to the disposal of Avipop in Italy. The £46 million in respect of 2017 relates to the full consolidation of the Poland Joint Venture.

42 – Insurance liabilities continued

(v) Analysis of general insurance and health claims development

The tables that follow present the development of claims payments and the estimated ultimate cost of claims for the accident years 2009 to 2018. The upper half of the tables shows the cumulative amounts paid during successive years related to each accident year, while the lower section of the tables shows the original estimated ultimate cost of claims and how these original estimates have increased or decreased, as more information becomes known about the individual claims and overall claim frequency and severity.

Key elements of the development of prior accident year general insurance and health net provisions during 2018 were:

- £372 million release from the UK due to a change in the discount rate used for estimating lump sum payments in settlement of bodily injury claims (for further details see note 43) and favourable claims experience in Personal and Commercial motor
- £78 million release from Canada primarily due to favourable claims experience on personal motor and aligning RBC claims practices with that of the Aviva book
- £127 million release from Europe (including Ireland) mainly due to continued favourable development in France

Key elements of the development of prior accident year general insurance and health net provisions during 2017 were:

- £107 million release from UK due to favourable claims experience in Personal Motor offset by the less favourable experience in 2017 of Commercial Liability claims and large claims in Personal and Commercial Property
- £2 million strengthening from Canada due to the better than expected claims experience following the 2010 Ontario auto reforms tailing off, unfavourable development in the Ontario Accident Benefits coverage in the RBC book in 2017, deterioration of experience in Alberta Auto Bodily Injury and Newfoundland Auto Bodily Injury
- £79 million release from Europe (including Ireland) mainly due to continued favourable development in France and Italy

Gross of reinsurance

Before the effect of reinsurance, the loss development table is:

Accident year	All prior years £m	2009 £m	2010 £m	2011 £m	2012 £m	2013 £m	2014 £m	2015 £m	2016 £m	2017 £m	2018 £m	Total £m
Gross cumulative claim payments												
At end of accident year		(3,780)	(3,502)	(3,420)	(3,055)	(3,068)	(3,102)	(2,991)	(3,534)	(3,517)	(3,769)	
One year later		(5,464)	(5,466)	(4,765)	(4,373)	(4,476)	(4,295)	(4,285)	(4,972)	(4,952)		
Two years later		(6,102)	(5,875)	(5,150)	(4,812)	(4,916)	(4,681)	(4,710)	(5,435)			
Three years later		(6,393)	(6,163)	(5,457)	(5,118)	(5,221)	(4,974)	(4,997)				
Four years later		(6,672)	(6,405)	(5,712)	(5,376)	(5,467)	(5,244)					
Five years later		(6,836)	(6,564)	(5,864)	(5,556)	(5,645)						
Six years later		(6,958)	(6,649)	(5,978)	(5,635)							
Seven years later		(7,043)	(6,690)	(6,032)								
Eight years later		(7,078)	(6,718)									
Nine years later		(7,100)										
Estimate of gross ultimate claims												
At end of accident year		7,364	6,911	6,428	6,201	6,122	5,896	5,851	6,947	6,894	7,185	
One year later		7,297	7,006	6,330	6,028	6,039	5,833	5,930	6,931	6,796		
Two years later		7,281	6,950	6,315	6,002	6,029	5,865	5,912	6,864			
Three years later		7,215	6,914	6,292	5,952	6,067	5,842	5,814				
Four years later		7,204	6,912	6,262	6,002	6,034	5,772					
Five years later		7,239	6,906	6,265	5,979	5,996						
Six years later		7,217	6,926	6,265	5,910							
Seven years later		7,256	6,913	6,223								
Eight years later		7,228	6,877									
Nine years later		7,227										
Estimate of gross ultimate claims		7,227	6,877	6,223	5,910	5,996	5,772	5,814	6,864	6,796	7,185	
Cumulative payments		(7,100)	(6,718)	(6,032)	(5,635)	(5,645)	(5,244)	(4,997)	(5,435)	(4,952)	(3,769)	
Effect of discounting	2,388	127	159	191	275	351	528	817	1,429	1,844	3,416	11,525
	(411)	(14)	(25)	(2)	—	(1)	—	—	—	—	—	(453)
Present value	1,977	113	134	189	275	350	528	817	1,429	1,844	3,416	11,072
Cumulative effect of foreign exchange movements	—	—	(1)	2	6	12	31	101	(7)	(12)	—	132
Effect of acquisitions	11	(1)	2	12	15	17	38	57	51	—	—	202
Present value recognised in the statement of financial position	1,988	112	135	203	296	379	597	975	1,473	1,832	3,416	11,406

42 – Insurance liabilities continued

Net of reinsurance

After the effect of reinsurance, the loss development table is:

Accident year	All prior years £m	2009 £m	2010 £m	2011 £m	2012 £m	2013 £m	2014 £m	2015 £m	2016 £m	2017 £m	2018 £m	Total £m
Net cumulative claim payments												
At end of accident year		(3,650)	(3,386)	(3,300)	(2,925)	(2,905)	(2,972)	(2,867)	(3,309)	(3,483)	(3,718)	
One year later		(5,286)	(5,242)	(4,578)	(4,166)	(4,240)	(4,079)	(4,061)	(4,591)	(4,843)		
Two years later		(5,885)	(5,637)	(4,963)	(4,575)	(4,649)	(4,432)	(4,452)	(5,012)			
Three years later		(6,177)	(5,905)	(5,263)	(4,870)	(4,918)	(4,720)	(4,725)				
Four years later		(6,410)	(6,137)	(5,485)	(5,110)	(5,159)	(4,973)					
Five years later		(6,568)	(6,278)	(5,626)	(5,289)	(5,324)						
Six years later		(6,657)	(6,361)	(5,740)	(5,371)							
Seven years later		(6,708)	(6,411)	(5,798)								
Eight years later		(6,744)	(6,440)									
Nine years later		(6,771)										
Estimate of net ultimate claims												
At end of accident year		7,115	6,650	6,202	5,941	5,838	5,613	5,548	6,489	6,714	6,997	
One year later		7,067	6,751	6,103	5,765	5,745	5,575	5,635	6,458	6,591		
Two years later		7,036	6,685	6,095	5,728	5,752	5,591	5,608	6,377			
Three years later		6,978	6,644	6,077	5,683	5,733	5,559	5,517				
Four years later		6,940	6,634	6,034	5,717	5,689	5,490					
Five years later		6,977	6,614	6,005	5,680	5,653						
Six years later		6,908	6,624	6,003	5,631							
Seven years later		6,897	6,615	5,967								
Eight years later		6,896	6,590									
Nine years later		6,901										
Estimate of net ultimate claims		6,901	6,590	5,967	5,631	5,653	5,490	5,517	6,377	6,591	6,997	
Cumulative payments		(6,771)	(6,440)	(5,798)	(5,371)	(5,324)	(4,973)	(4,725)	(5,012)	(4,843)	(3,718)	
	907	130	150	169	260	329	517	792	1,365	1,748	3,279	9,646
Effect of discounting	(157)	(12)	(21)	3	—	4	—	—	—	—	—	(183)
Present value	750	118	129	172	260	333	517	792	1,365	1,748	3,279	9,463
Cumulative effect of foreign exchange movements	—	—	(1)	1	6	11	30	99	(6)	(12)	—	128
Effect of acquisitions	12	(1)	2	12	15	17	39	57	51	—	—	204
Present value recognised in the statement of financial position	762	117	130	185	281	361	586	948	1,410	1,736	3,279	9,795

In the loss development tables shown above, the cumulative claim payments and estimates of cumulative claims for each accident year are translated into sterling at the exchange rates that applied at the end of that accident year. The impact of using varying exchange rates is shown at the bottom of each table. Disposals are dealt with by treating all outstanding and IBNR claims of the disposed entity as 'paid' at the date of disposal.

The loss development tables above include information on asbestos and environmental pollution claims provisions from business written before 2008. The undiscounted claim provisions, net of reinsurance, in respect of this business at 31 December 2018 were £94 million (2017: £95 million). The movement in the year reflects a reduction of £6 million due to favourable claims development, claim payments net of reinsurance recoveries and foreign exchange movements.

43 – Insurance liabilities methodology and assumptions

(a) Long-term business

The main method used for the actuarial valuation of long-term insurance liabilities is the gross premium method which involves the discounting of projected future cash flows. The cash flows are calculated using the contractual premiums payable together with explicit assumptions for investment returns, discount rates, inflation, mortality, morbidity, persistency and future expenses. These assumptions can vary by contract type and reflect current and expected future experience with an allowance for prudence.

The methodology and assumptions described below relate to the UK and France insurance businesses only.

(i) UK

Non-profit business

The valuation of non-profit business is based on grandfathered regulatory requirements under IFRS 4 prior to the adoption of Solvency II, adjusted to remove certain regulatory reserves and margins in assumptions, notably for annuity business. Conventional non-profit contracts, including those written in the with-profits funds, are valued using the gross premium method. For non-profit business in the ex-Friends Life with-profits funds, the liabilities are measured on a realistic basis with implicit recognition of the present value of future profits.

For unit-linked and some unitised with-profits business, the provisions are valued by adding a prospective non-unit reserve to the bid value of units. The prospective non-unit reserve is calculated by projecting the future non-unit cash flows using prudent assumptions and on the assumption that future premiums cease, unless it is more onerous to assume that they continue.

Discount rates

Valuation discount rate assumptions are set with regard to yields on the supporting assets and the general level of long-term interest rates as measured by gilt yields. An explicit allowance for risk is included by making an explicit deduction from the yields on corporate bonds, mortgages and deposits, based on historical default experience of each asset class. For equity release assets, the risk allowances are consistent with those used in the fair value asset methodology, as described in note 23. A further margin for risk is then deducted for all asset classes.

Valuation discount rates for business in the non-profit funds are as follows:

Valuation discount rates (Gross of investment expenses)	2018	2017
Assurances		
Life conventional non-profit	0.9% to 2.6%	0.8% to 2.5%
Pensions conventional non-profit	1.1% to 2.1%	1.0% to 2.4%
Annuities		
Conventional immediate and deferred annuities	1.2% to 3.0%	1.0% to 2.8%
Non-unit reserves on unit-linked business		
Life	0.9% to 1.3%	0.8% to 1.2%
Pensions	0.9% to 1.6%	0.8% to 1.5%
Income Protection		
Active lives	1.1% to 2.6%	1.0% to 2.5%
Claims in payment (level and index linked)	1.3% to 1.6%	1.0% to 1.5%

The valuation discount rates are after a reduction for risk, but before allowance for investment expenses. For conventional immediate annuity business, the allowance for risk comprises long-term assumptions on a prudent basis for defaults or (in the case of equity release assets) expected losses arising from the No-Negative-Equity Guarantee. These allowances vary by asset category and for some asset classes by rating.

The risk allowances made for corporate bonds, mortgages (including healthcare mortgages, commercial mortgages and infrastructure assets), and equity release equated to 50 bps, 39-41 bps, and 112 bps respectively at 31 December 2018 (2017: 47-48 bps, 33-40 bps, and 102 bps respectively).

The total valuation allowance in respect of corporate bonds and mortgages, including healthcare mortgages but excluding equity release, was £1.9 billion (2017: £1.8 billion) over the remaining term of the portfolio at 31 December 2018. The total valuation allowance in respect of equity release assets was £1.3 billion at 31 December 2018 (2017: £1.2 billion). Total liabilities for the annuity business were £53.7 billion at 31 December 2018 (2017: £52.0 billion).

Expenses

Maintenance expense assumptions for non-profit business are generally expressed as a 'per policy' charge set with regards to an allocation of current year expense levels by broad category of business and using the policy counts for in-force business. The assumptions also include an allowance for prudence and increase by future expense inflation over the lifetime of each contract. Expense inflation is assumed to be in line with RPI, and in line with external agreements for business administered externally. An additional liability is held if projected per-policy expenses in future years are expected to exceed current assumptions. Further, explicit project expense liabilities are held for non-discretionary project costs that typically relate to mandatory requirements. Expense-related liabilities are only held where expenses are not covered by anticipated future profits in the liability methodology, notably for unit-linked contracts. Investment expense assumptions are generally expressed as a proportion of the assets backing the liabilities.

43 – Insurance liabilities methodology and assumptions continued

Mortality

Mortality assumptions for non-profit business are set with regard to recent Company experience and general industry trends. The mortality tables used in the valuation are summarised below:

Mortality tables used	2018	2017
Assurances		
Non-profit	AM00/AF00 or TM08/TF08 adjusted for smoker status and age/sex specific factors	AM00/AF00 or TM00/TF00 adjusted for smoker status and age/sex specific factors
Pure endowments and deferred annuities before vesting	AM00/AF00 adjusted	AM00/AF00 adjusted
Annuities in payment		
Pensions business and general annuity business	PMA08 HAMWP/PFA08 HAMWP adjusted plus allowance for future mortality improvement	PCMA00/PCFA00 adjusted plus allowance for future mortality improvement
Bulk purchase annuities	CV2	PCMA00/PCFA00/CV2

For the largest portfolio of pensions annuity business, the underlying mortality assumptions for males are 105.8% of PMA08 HAMWP adjusted (2017: 104.0% of PCMA00 adjusted) with base year 2008; for females the underlying mortality assumptions are 99.0% of PFA08 HAMWP adjusted (2017: 94.5% of PCFA00 adjusted) with base year 2008.

Improvements are based on 'CMI_2017 (S=7.5) Advanced with adjustments' (2017: 'CMI_2016 (S=7.5) Advanced with adjustments') with a long-term improvement rate of 1.75% (2017: 1.75%) for males and 1.5% (2017: 1.5%) for females, both with an additional improvement for prudence of 0.5% (2017: 0.5%) to all future annual improvement adjustments. The CMI_2017 tables have been adjusted by adding 0.25% (2017: 0.25%) and 0.35% (2017: 0.35%) to the initial rate of mortality improvements for males and females respectively (to allow for greater mortality improvements in the annuitant population relative to the general population on which CMI_2017 is based), and uses the advanced parameters to taper the long-term improvement rates to zero between ages 90 and 115 (the 'core' parameters taper the long-term improvement rates to zero between ages 85 and 110). In addition, on a significant proportion of individual annuity business, year-specific adjustments are made to allow for potential selection effects due to the development of the Enhanced Annuity market and covering possible selection effects from pension freedom reforms.

With-profits business

The Group's UK with-profits funds are evaluated by reference to FRS 27, which was grandfathered under IFRS 4, prior to the adoption of Solvency II. This uses an approach of calculating the realistic liabilities for the contracts. The realistic liabilities include the with-profits benefit reserve (WPBR), and an additional provision for the expected cost of any guarantees and options in excess of the WPBR.

The WPBR for an individual contract is generally calculated on a retrospective basis, and represents the accumulation of the premiums paid on the contract, allowing for investment return, taxation, expenses and any other charges levied on the contract.

Provisions for guarantees and options within realistic liabilities are measured using market-consistent stochastic models. A stochastic approach includes measuring the time value of guarantees and options, which represents the additional cost arising from uncertainty surrounding future economic conditions. Non-market-related assumptions (for example, persistency, mortality and expenses) are assessed on a best estimate basis with reference to Company and wider industry experience, adjusted to take into account future trends.

The with-profits business is valued by adjusting Solvency II Best Estimate Liabilities and results in a valuation in accordance with FRS 27.

Future investment return

A 'risk-free' rate equal to the spot yield on UK swaps is used for the valuation of with-profits business. The rates vary according to the outstanding term of the policy, with a typical rate as at 31 December 2018 of 1.44% (2017: 1.29%) for a policy with ten years outstanding.

Volatility of investment return

Volatility assumptions are set with reference to implied volatility data on traded market instruments, where available, or on a best estimate basis where not.

Volatility	2018	2017
Equity returns	18.0%	20.9%
Property returns	15.8%	16.4%

The equity volatility used depends on term, money-ness and region. The figure shown is for a sample UK equity, at the money, with a ten-year term.

43 – Insurance liabilities methodology and assumptions continued

Future regular bonuses

Annual bonus assumptions for 2019 have been set consistently with the year-end 2018 declaration. Future annual bonus rates reflect the principles and practices of each fund. In particular, the level is set with regard to the projected margin for final bonus and the change from one year to the next is limited to a level consistent with past practice.

Mortality

Mortality assumptions for with-profits business are set with regard to recent Company experience and general industry trends. The mortality tables used in the valuation are summarised below:

Mortality table used	2018	2017
Assurances, pure endowments and deferred annuities before vesting	Nil or Axx00 adjusted	Nil or Axx00 adjusted
Pensions business after vesting and pensions annuities in payment	PMA08 HAMWP/PFA08 HAMWP adjusted plus allowance for future mortality improvement	PCMA00/PCFA00 adjusted plus allowance for future mortality improvement

Allowance for future mortality improvement is in line with the rates for non-profit business.

Expenses

Maintenance expense assumptions for with-profits business are generally expressed as a fixed 'per policy' charge in line with agreements between Aviva Life Services UK Limited (UKLS) and Aviva Life & Pensions UK Limited (AVLAP). The assumptions increase by a future inflation charge over the lifetime of each contract, which is 50% RPI, 100% RPI or 100% RPI + 1% depending on product type. Any excess of expenses charged by UKLS to AVLAP over the charges specified by the agreements is borne by the non-profit business.

Guarantees and options

The provisions held in respect of guaranteed annuity options for the with-profits and the non-profit business are a prudent assessment of the additional liability incurred under the option on a basis and method consistent with that used to value basic policy liabilities, and includes a prudent assessment of the proportion of policyholders who will choose to exercise the option. For further details see note 45.

(ii) France

The majority of reserves arise from single premium savings products and are based on the accumulated fund values, adjusted to maintain consistency with the value of the assets backing the policyholder liabilities. For traditional business, the net premium method is used for prospective valuations, in accordance with local regulation, where the valuation assumptions depend on the date of issue of the contract. The valuation discount rate also depends on the original duration of the contract and mortality rates are based on industry tables.

	Valuation discount rates		Mortality tables used
	2018	2017	2018 and 2017
Life assurances	0% to 4.5%	0% to 4.5%	TD73-77,TD88-90,TH00-02 TF00-02, H_AVDBS,F_AVDBS
Annuities	0% to 2%	0% to 2%	H_SSDBS, F_SSDBS TGF05/TGH05

(b) General insurance and health

Outstanding claims provisions are estimated based on known facts at the date of estimation. Case estimates are set by skilled claims technicians and established case setting procedures. Claims above certain limits are referred to senior claims handlers for estimate authorisation.

No adjustments are made to the claims technicians' case estimates included in booked claim provisions, except for rare occasions when the estimated ultimate cost of individual large or unusual claims may be adjusted, subject to internal reserve committee approval, to allow for uncertainty regarding, for example, the outcome of a court case. The ultimate cost of outstanding claims is then estimated by using a range of standard actuarial claims projection techniques, such as the Chain Ladder and Bornhuetter-Ferguson methods. Historical claims development is mainly analysed by accident period, although underwriting or notification period is also used where this is considered appropriate.

The assumptions used in most non-life actuarial projection techniques, including future rates of claims inflation or loss ratio assumptions, are implicit in the historical claims development data on which the projections are based. Additional qualitative judgement is used to assess the extent to which past trends may not apply in the future in order to arrive at a point estimate for the ultimate cost of claims that represents the likely outcome, from a range of possible outcomes, taking account of all the uncertainties involved. The range of possible outcomes does not, however, result in the quantification of a reserve range. The following explicit assumptions are made which could materially impact the level of booked net reserves:

43 – Insurance liabilities methodology and assumptions continued

UK mesothelioma claims

The level of uncertainty associated with latent claims is considerable due to the relatively small number of claims and the long-tail nature of the liabilities. UK mesothelioma claims account for a large proportion of the Group's latent claims. The key assumptions underlying the estimation of these claims include claim numbers, the base average cost per claim, future inflation in the average cost of claims and legal fees.

The best estimate of the liabilities reflects the latest available market information and studies. Many different scenarios can be derived by flexing these key assumptions and applying different combinations of these assumptions. An upper and lower scenario can be derived by making reasonably likely changes to these assumptions, resulting in an estimate of £20 million (2017: £35 million) greater than the best estimate, or £30 million (2017: £40 million) lower than the best estimate. These scenarios do not, however, constitute an upper or lower bound on these liabilities.

Interest rates used to discount latent claim liabilities and structured settlements

The discount rates used in determining our latent claim liabilities and structured settlements are based on the swap curve in the relevant currency at the reporting date, having regard to the duration of the expected settlement of claims. The range of discount rates used (for further details see note 42(c)(ii)) depends on the duration of the claim and the reporting date. At 31 December 2018, it is estimated that a 1% fall in the discount rates used would increase net claim reserves by approximately £104 million (2017: £110 million), excluding the offsetting effect on asset values as assets are not hypothecated across classes of business.

Allowance for risk and uncertainty

The uncertainties involved in estimating loss reserves are allowed for in the reserving process and by the estimation of explicit reserve uncertainty distributions. The reserve estimation basis requires all non-life businesses to calculate booked claim provisions as the best estimate of the cost of future claim payments, plus an explicit allowance for risk and uncertainty. The allowance for risk and uncertainty is calculated by each business unit in accordance with the requirements of the Group non-life reserving policy, taking into account the risks and uncertainties specific to each line of business and type of claim in that territory. The requirements of the Group non-life reserving policy also seek to ensure that the allowance for risk and uncertainty is set consistently across both business units and reporting periods.

Lump sum payments in settlement of bodily injury claims that are decided by the UK courts are calculated in accordance with the Ogden Tables and discount rate. The Ogden discount rate is set by the Lord Chancellor and is applied when calculating the present value of future care costs and loss of earnings for claims settlement purposes. Following the announcement by the Ministry of Justice on 27 February 2017 to decrease the Ogden rate from 2.75% to -0.75%, balance sheet reserves have been calculated using a rate of -0.75%. On 20 March 2018, the Government announced that it will introduce the Civil Liability Bill (the Bill), which includes provisions to amend the discount rate. In December 2018 the Bill became an Act of Parliament, meaning that a new Ogden discount rate will be set by the Lord Chancellor in 2019.

Based upon this, there is certainty that there will be a change in the Ogden rate in 2019, but uncertainty remains around the amount and timing of the final rate. At December 2018, the claim reserves in the UK have been calculated using a discount rate of 0.00% (2017: -0.75%) resulting in a release of £190 million, though the rate to be announced by the Lord Chancellor later this year may result in a different discount rate. By way of illustration, should the Ogden discount rate announced in the future be 0.50% then this would be expected to reduce reserves by approximately £80 million with an equivalent positive impact on profit before tax. Alternatively, should the Ogden discount rate announced in the future be -0.50% then this would be expected to increase reserves by approximately £110 million with an equivalent negative impact on profit before tax.

44 – Liabilities for investment contracts

This note analyses our gross liabilities for investment contracts by type of product and describes the calculation of these liabilities.

(a) Carrying amount

The liabilities for investment contracts (gross of reinsurance) at 31 December comprised:

	2018 £m	2017 £m
Long-term business		
Liabilities for participating investment contracts	90,455	87,654
Liabilities for non-participating investment contracts	120,354	124,995
Total	210,809	212,649
Less: Amounts classified as held for sale	(8,341)	(8,663)
	202,468	203,986

(b) Group practice

Investment contracts are those that do not transfer significant insurance risk from the contract holder to the issuer, and are therefore treated as financial instruments under IFRS.

Many investment contracts contain a discretionary participation feature in which the contract holder has a contractual right to receive additional benefits as a supplement to guaranteed benefits. These are referred to as participating contracts and are measured according to the methodology for long-term business liabilities as described in note 43. They are not measured at fair value as there is currently no agreed definition of fair valuation for discretionary participation features under IFRS. In the absence of such a definition, it is not possible to provide a range of estimates within which a fair value is likely to fall. The IASB deferred consideration of participating contracts to the IFRS 17 insurance standard, which is expected to be implemented on 1 January 2022.

For participating business, the discretionary participation feature is recognised separately from the guaranteed element and is classified as a liability, referred to as unallocated divisible surplus, except for the with-profits sub-fund supported by the RIEESA. Guarantees on long-term investment products are discussed in note 45.

Investment contracts that do not contain a discretionary participation feature are referred to as non-participating contracts and the liability is measured at either fair value or amortised cost. We currently have no non-participating investment contracts measured at amortised cost.

Of the non-participating investment contracts measured at fair value, £119,402 million at 31 December 2018 (2017: £123,916 million) are unit-linked in structure and the fair value liability is equal to the current unit fund value, including any unfunded units, plus if required, additional non-unit reserves based on a discounted cash flow analysis. These contracts are generally classified as 'Level 1' in the fair value hierarchy, as the unit reserve is calculated as the publicly quoted unit price multiplied by the number of units in issue, and any non-unit reserve is insignificant.

For unit-linked business, a deferred acquisition cost asset and deferred income reserve liability are recognised in respect of transaction costs and front-end fees respectively, that relate to the provision of investment management services, and which are amortised on a systematic basis over the contract term. The amount of the related deferred acquisition cost asset is shown in note 29 and the deferred income liability is shown in note 54.

For non-participating investment contracts acquired in a business combination, an acquired value of in-force business asset is recognised in respect of the fair value of the investment management services component of the contracts, which is amortised on a systematic basis over the useful lifetime of the related contracts. The amount of the acquired value of in-force business asset is shown in note 18, which relates primarily to the acquisition of Friends Life in 2015 and Friends First in 2018.

(c) Movements in the year

The following movements have occurred in the gross provisions for investment contracts in the year:

(i) Participating investment contracts

	2018 £m	2017 £m
Carrying amount at 1 January	87,654	89,739
Liabilities in respect of new business	6,301	5,193
Expected change in existing business	(4,491)	(4,986)
Variance between actual and expected experience	(1,441)	2,072
Impact of operating assumption changes	59	10
Impact of economic assumption changes	(40)	411
Other movements recognised as an expense ¹	152	(16)
Change in liability recognised as an expense ²	540	2,684
Effect of portfolio transfers, acquisitions and disposals ³	427	(7,243)
Foreign exchange rate movements	774	2,452
Other movements ⁴	1,060	22
Carrying amount at 31 December	90,455	87,654

1 Other movements during 2018 and 2017 primarily relate to a special bonus distribution to with-profits policyholders in UK Life.

2 Total interest expense for participating investment contracts recognised in profit or loss is £(419) million (2017: £2,489 million).

3 The movement during 2018 relates to the acquisition of Friends First in Ireland. The movement during 2017 relates to the disposal of Antarius in France.

4 The movement during 2018 relates to the reclassification in France from non-participating investment contracts to participating investment contracts (£151m) and from insurance to participating investment contracts (£56m) and to a reclassification from non-participating investment contracts to participating investment contracts in the UK (£853m).

44 – Liabilities for investment contracts continued

For many types of long-term business, including unit-linked and participating funds, movements in asset values are offset by corresponding changes in liabilities, limiting the net impact on profit.

The variance between actual and expected experience in 2018 of £(1.4) billion is primarily driven by adverse equity returns in the UK and France.

The impact of assumption changes in the analysis shows the resulting movement in the carrying value of participating investment contract liabilities. For participating business, a movement in liabilities is generally offset by a corresponding adjustment to the unallocated divisible surplus and does not impact profit. Where assumption changes do impact profit, these are included in the effect of changes in assumptions and estimates during the year shown in note 47, together with the impact of movements in related non-financial assets.

(ii) Non-participating investment contracts

	2018 £m	2017 £m
Carrying amount at 1 January	124,995	114,531
Liabilities in respect of new business	4,869	4,484
Expected change in existing business	(5,509)	(4,427)
Variance between actual and expected experience	(5,539)	10,115
Impact of operating assumption changes	(10)	2
Impact of economic assumption changes	(81)	(1)
Other movements recognised as an expense	6	10
Change in liability	(6,264)	10,183
Effect of portfolio transfers, acquisitions and disposals ¹	2,494	(4)
Foreign exchange rate movements	133	277
Other movements ²	(1,004)	8
Carrying amount at 31 December	120,354	124,995

¹ The movement during 2018 relates to the acquisition of Friends First in Ireland. The movement during 2017 relates to the disposal of Antarius in France.

² The movement during 2018 relates to the reclassification in France from non-participating investment contracts to participating investment contracts (£(151)m) and to a reclassification from non-participating investment contracts to participating investment contracts in the UK (£(853)m).

For unit-linked investment contracts, movements in asset values are offset by corresponding changes in liabilities, limiting the net impact on profit. The variance between actual and expected experience in 2018 of £(5.5) billion is primarily driven by the impact of negative equity returns in the UK and Ireland.

The impact of assumption changes in the above analysis shows the resulting movement in the carrying value of non-participating investment contract liabilities. The impacts of assumption changes on profit are included in the effect of changes in assumptions and estimates during the year shown in note 47, which combines participating and non-participating investment contracts together with the impact of movements in related non-financial assets.

45 – Financial guarantees and options

This note details the financial guarantees and options inherent in some of our insurance and investment contracts.

As a part of their operating activities, various Group companies have provided guarantees and options, including investment return guarantees, on certain long-term insurance and fund management products.

(a) UK non-profit business

The Group's UK non-profit funds are evaluated by reference to statutory reserving rules, which are based on the UK regulatory requirements (grandfathered under IFRS 4), prior to the adoption of Solvency II, adjusted to remove certain regulatory reserves and margins in assumptions, notably for annuity business.

(i) Guaranteed annuity options

The Group's UK non-profit funds have written contracts which contain guaranteed annuity rate options (GAOs), where the policyholder has the option to take the benefits from a policy in the form of an annuity based on guaranteed conversion rates. Provision for these guarantees do not materially differ from a provision based on a market-consistent stochastic model, and amounts to £87 million at 31 December 2018 (2017: £100 million).

(ii) Guaranteed unit price on certain products

Certain pension products linked to long-term life insurance funds provide policyholders with guaranteed benefits at retirement or death. No additional provision is made for this guarantee as the investment management strategy for these funds is designed to ensure that the guarantee can be met from the fund, mitigating the impact of large falls in investment values and interest rates.

(iii) Return of Premium guarantees

German pension products sold in Friends Life between 2006 and 2014 are subject to a Return of Premium guarantee whereby the product guarantees to return the maximum of the unit fund value or total premiums paid (before deductions). Provisions for this guarantee are calculated using a market-consistent stochastic model and amount to £153 million at 31 December 2018 (2017: £132 million).

45 – Financial guarantees and options continued

(b) UK with-profits business

The Group's UK with-profits liabilities are evaluated by reference to FRS 27, which was grandfathered under IFRS 4, prior to the adoption of Solvency II. Under the PRA's rules, provision for guarantees and options within realistic liabilities are measured using market-consistent stochastic models. A stochastic approach includes measuring the time value of guarantees and options, which represents the additional cost arising from uncertainty surrounding future economic conditions.

The material guarantees and options relating to this provision are:

(i) Maturity value and death benefit guarantees

Significant conventional and unitised with-profits business have minimum maturity (and in some cases death benefit) values reflecting the sum assured plus declared annual bonus. In addition, maturity value guarantees are offered on certain unit-linked products. For some unitised with-profits life contracts the amount paid after the fifth policy anniversary is guaranteed to be at least as high as the premium paid increased in line with the rise in RPI or CPI.

(ii) No market valuation reduction (MVR) guarantees

For unitised business, there are circumstances where a 'no MVR' guarantee is applied, for example on certain policy anniversaries, guaranteeing that no market value reduction will be applied to reflect the difference between the accumulated value of units and the market value of the underlying assets.

(iii) Guaranteed annuity options

The Group's UK with-profits funds have written individual and group pension contracts which contain GAOs, where the policyholder has the option to take the benefits from a policy in the form of an annuity based on guaranteed conversion rates. The Group also has exposure to GAOs and similar options on deferred annuities.

Realistic liabilities for GAOs in the UK with-profits funds were £1,644 million at 31 December 2018 (2017: £2,186 million). With the exception of the with-profits sub-fund supported by the RIEESA, movements in the realistic liabilities in the with-profits funds are offset by a corresponding movement in the unallocated divisible surplus, with no net impact on IFRS profit. Realistic liabilities for GAOs in the with-profits sub-fund supported by the RIEESA were £155 million at 31 December 2018 (2017: £206 million).

(iv) Guaranteed minimum pension

The Group's UK with-profits funds also have certain policies that contain a guaranteed minimum level of pension as part of the condition of the original transfer from state benefits to the policy.

(v) Guaranteed minimum maturity payments on mortgage endowments

The with-profits funds made promises to certain policyholders in relation to their with-profits mortgage endowments. Top-up payments will be made on these policies at maturity to meet the mortgage value up to a maximum of the 31 December 1999 illustrated shortfall.

(c) Overseas life businesses

In addition to guarantees written in the Group's UK businesses, our overseas businesses have also written contracts containing guarantees and options. Details of the significant guarantees and options provided by overseas life businesses are set out below.

(i) France

Guaranteed surrender value, guaranteed minimum bonuses and options

Aviva France has written a number of contracts with a guaranteed surrender value and guaranteed minimum bonuses. The guaranteed surrender value is the accumulated value of the contract including accrued bonuses. Bonuses are based on accounting income from amortised bond portfolios, where the duration of bond portfolios is set in relation to the expected duration of the policies, plus income and releases from realised gains on equity-type investments. Policy reserves are equal to guaranteed surrender values. Local statutory accounting envisages the establishment of a reserve, 'Provision pour Aléas Financiers' (PAF), when accounting income is less than 125% of guaranteed minimum credited returns. No PAF was established at full year 2018 (2017: no PAF was established).

The most significant of these contracts is the AFER Eurofund which has total liabilities of £39 billion at 31 December 2018 (2017: £38 billion). The guaranteed minimum bonus is agreed between Aviva France and the AFER association at the end of each year, in respect of the following year. The bonus was 2.25% for 2018 (2017: 2.40%) compared with an accounting income from the fund of 2.74% (2017: 2.89%).

Non-AFER contracts with guaranteed surrender values had liabilities of £11 billion at 31 December 2018 (2017: £11 billion) and all guaranteed annual bonus rates are between 0% and 4.5% (2017: 0% to 4.5%). For non-AFER business the accounting income return exceeded guaranteed bonus rates in 2018 (2017: the accounting income return exceeded guaranteed bonus rates).

In addition, there are a small proportion of contracts with a switch-loss option. Consistent with previous years, the risks associated with switch-loss options are allowed for in the liabilities in accordance with local regulations and IFRS 4.

Guaranteed death and maturity benefits

The Group has also sold a small proportion of unit-linked policies where the death and/or maturity benefit is guaranteed to be at least equal to the premiums paid. The reserve held in the Group's consolidated statement of financial position is calculated on a prudent basis and is in excess of the economic liability.

45 – Financial guarantees and options continued

(ii) Italy

Guaranteed investment returns and guaranteed surrender values

The Group has written contracts containing guaranteed investment returns and guaranteed surrender values in Italy. Liabilities are generally taken as the face value of the contract plus, if required, an explicit provision for guarantees calculated in accordance with local regulations and IFRS 4.

(iii) Ireland

Guaranteed annuity options and guaranteed maturity values

As in the UK, the Group's with-profits liabilities in Ireland are measured on a realistic basis, including realistic liabilities for guarantees and options. Guarantees and options in Ireland include GAOs, minimum maturity values on conventional with-profits business, guaranteed minimum bonus rates on unitised with profits business, and a 'no MVR' guarantee that may apply at certain policy anniversaries.

46 – Reinsurance assets

This note details the reinsurance assets on our insurance and investment contract liabilities.

(a) Carrying amount

The reinsurance assets at 31 December comprised:

	2018 £m	2017 £m
Long-term business		
Insurance contracts	5,836	5,469
Participating investment contracts	1	2
Non-participating investment contracts ¹	4,009	6,094
	9,846	11,565
Outstanding claims provisions	89	64
	9,935	11,629
General insurance and health		
Outstanding claims provisions	789	845
Provisions for claims incurred but not reported	822	884
	1,611	1,729
Provisions for unearned premiums	254	257
	1,865	1,986
	11,800	13,615
Less: Amounts classified as held for sale	(45)	(123)
Total	11,755	13,492

¹ Balances in respect of all reinsurance treaties are included under reinsurance assets, regardless of whether they transfer significant insurance risk. The reinsurance assets classified as non-participating investment contracts are financial instruments measured at fair value through profit or loss. During 2018, £3,840 million of reinsurance assets have been reclassified as collective investments in unit-linked funds following a restructure of a reinsurance treaty in UK Life. This is a continuation of activity undertaken in 2017 (£14,353 million).

Of the above total, £10,800 million (2017: £12,302 million) is expected to be recovered more than one year after this statement of financial position.

(b) Assumptions

The assumptions, including discount rates, used for reinsurance contracts follow those used for insurance liabilities. Reinsurance assets are valued net of an allowance for recoverability.

46 – Reinsurance assets continued

(c) Movements

The following movements have occurred in the reinsurance assets during the year:

(i) Long-term business liabilities

	2018 £m	2017 £m
Carrying amount at 1 January	11,565	24,554
Assets in respect of new business	1,766	1,004
Expected change in existing business assets	(22)	(786)
Variance between actual and expected experience	431	2,264
Impact of non-economic assumption changes	(460)	(634)
Impact of economic assumption changes	21	94
Other movements ¹	(3,877)	(14,529)
Change in assets ²	(2,141)	(12,587)
Effect of portfolio transfers, acquisitions and disposals ³	399	(410)
Foreign exchange rate movements	23	8
Carrying amount at 31 December	9,846	11,565

1 The movement during 2018 includes £3,840 million of reinsurance assets being reclassified as collective investments in unit-linked funds following the restructure of a reinsurance treaty in UK Life. This is a continuation of activity undertaken in 2017 (£14,353 million).

2 Change in assets does not reconcile with values in note 41(b) due to the inclusion of reinsurance assets classified as non-participating investment contracts where, for such contracts, deposit accounting is applied on the income statement.

3 The movement during 2018 primarily relates to the acquisition of Friends First in Ireland. The movement during 2017 primarily relates to the disposal of Antarius in France.

The impact of assumption changes in the above analysis shows the resulting movement in the carrying value of reinsurance assets, with corresponding movements in gross insurance contract liabilities. For participating businesses, a movement in reinsurance assets is generally offset by a corresponding adjustment to the unallocated divisible surplus and does not impact profit. Where assumption changes impact profit, these are included in the effect of changes in assumptions and estimates during the year (shown in note 47), together with the impact of movements in related liabilities and other non-financial assets.

46 – Reinsurance assets continued**(ii) General insurance and health claims liabilities**

	2018 £m	2017 £m
Carrying amount at 1 January	1,729	1,885
Impact of changes in assumptions	(22)	(15)
Reinsurers' share of claim losses and expenses		
Incurred in current year	176	179
Incurred in prior years	40	15
Reinsurers' share of incurred claim losses and expenses	216	194
Less:		
Reinsurance recoveries received on claims		
Incurred in current year	(54)	(32)
Incurred in prior years	(259)	(293)
Reinsurance recoveries received in the year	(313)	(325)
Unwind of discounting	8	8
Change in reinsurance asset recognised as income (note 41(b))	(111)	(138)
Effect of portfolio transfers, acquisitions and disposals ¹	(9)	—
Foreign exchange rate movements	2	(18)
Carrying amount at 31 December	1,611	1,729

¹ The movement during 2018 relates to the proportion of reinsurance assets held by Avipop sold by Italy GI.

(iii) General insurance and health unearned premiums

	2018 £m	2017 £m
Carrying amount at 1 January	257	250
Premiums ceded to reinsurers in the year	392	489
Less: Reinsurers' share of premiums earned during the year	(375)	(484)
Changes in reinsurance asset recognised as income	17	5
Reinsurers' share of portfolio transfers and acquisitions ¹	(21)	—
Foreign exchange rate movements	1	2
Carrying amount at 31 December	254	257

¹ The movement during 2018 relates to the proportion of Avipop sold by Italy GI that was ceded to reinsurers.

47 – Effect of changes in assumptions and estimates during the year

Estimates and assumptions used in determining the liabilities for insurance and investment contracts were changed from 2017 to 2018, affecting the liabilities with an equivalent impact on profit recognised during the year. This note analyses the impact of these changes on liabilities for insurance and investment contracts, and related assets and liabilities, such as unallocated divisible surplus, reinsurance, deferred acquisition costs and acquired value of in-force business, and does not allow for offsetting movements in the value of backing financial assets.

	Effect on profit 2018 £m	Effect on profit 2017 £m
Assumptions		
Long-term insurance business		
Interest rates	1,061	(1,720)
Expenses	9	(128)
Persistency rates	23	(79)
Mortality and morbidity for assurance contracts	24	113
Mortality for annuity contracts	780	779
Tax and other assumptions	18	2
Long-term investment business		
Expenses	(1)	—
General insurance and health business		
Change in discount rate assumptions	1	(7)
Total	1,915	(1,040)

The impact of interest rates on long-term business relates primarily to annuities in the UK (including any change in credit default and reinvestment risk provisions), where an increase in the valuation interest rate in response to widening of credit spreads, has decreased liabilities.

The impact of mortality for annuitant contracts on long-term business relates primarily to the UK. In 2018, there has been a reduction in reserves due to longevity assumptions and modelling which include: updates to mortality to reflect recent experience including the 2008 series tables for individual annuities of £345 million, updates to the rate of mortality improvements including CMI 2017 of £251 million, refinements to modelling of bulk purchase annuities together with a change to base mortality and improvements of £132 million and other less significant movements of £24 million. In Ireland and Singapore there was a slight reduction in the reserves of £28 million following a review of recent experience.

In 2017 the impact of mortality for annuitant contracts on long-term business relates primarily to the UK. This resulted in a reduction in reserves due to recognition of benefits from changes in longevity assumptions including: the impact of completing our review of the allowance for anti-selection risk of £170 million, updates reflecting our recent experience of £200 million, updates to the rate of historic and future mortality improvements, including the adoption of CMI 2016, of £340 million, and other less significant movements of £31 million. In Ireland there was a reduction of £38 million following a review of recent experience.

48 – Unallocated divisible surplus

An unallocated divisible surplus (UDS) is established where the nature of policy benefits is such that the division between shareholder reserves and policyholder liabilities is uncertain at the reporting date. Therefore, the expected duration for settlement of the UDS is undefined.

This note shows the movements in the UDS during the year.

	2018 £m	2017 £m
Carrying amount at 1 January	9,101	10,208
Change in participating fund assets	(4,139)	406
Change in participating fund liabilities	902	(710)
Other movements	—	10
Change in liability recognised as an expense	(3,237)	(294)
Effect of portfolio transfers, acquisition and disposals ¹	48	(1,076)
Foreign exchange rate movements	37	263
	5,949	9,101
Less: Amounts classified as held for sale ²	—	(19)
Carrying amount at 31 December	5,949	9,082

¹ The movement during 2018 relates to the acquisition of Friends First (£66 million), and the disposal of the remainder of the Spanish business (£18 million). The movement during 2017 relates to the disposal of Antarius (£832 million) and majority of Spanish business (£244 million).

² The amount classified as held for sale in 2017 relates to the remainder of the Spanish business (£19 million).

The amount of UDS at 31 December 2018 has decreased to £5.9 billion (2017: £9.1 billion). The decrease is mainly due to adverse market movements in Europe with credit spreads widening and a reduction in equity markets.

Where the aggregate amount of participating assets is less than the participating liabilities within a fund then the shortfall may be held as negative UDS, subject to recoverability testing as part of the liability adequacy requirements of IFRS 4. As at 31 December 2018 there is negative UDS in five funds in Italy totalling £355 million (2017: no negative UDS). These balances were tested for recoverability and all but one is considered to be recoverable by comparing the excess of IFRS participating liabilities net of any related DAC or AVIF over the adjusted Solvency II best estimate liabilities for the relevant contracts. The Solvency II best estimate liabilities were adjusted where Solvency II does not represent a best estimate of shareholders' interests consistent with the impairment test for goodwill for long-term business (see note 17) and for AVIF on insurance contracts (see note 18). An impairment of £8 million was applied to one fund to reflect no recoverability.

49 – Tax assets and liabilities

This note analyses the tax assets and liabilities that appear in the statement of financial position and explains the movements in these balances in the year.

(a) Current tax

Current tax assets recoverable and liabilities payable in more than one year are £24 million and £9 million (2017: £19 million and £14 million), respectively.

Included within uncertain tax provisions is the impact on the Group as a party to the CFC & Dividend Group Litigation Order, of which Prudential was the test case. The Supreme Court of the United Kingdom delivered its judgement on this case on 25 July 2018 which confirmed the taxpayer had successfully challenged the tax treatment of portfolio dividends received from non-UK entities before 2009. The Group is attempting to recover claims from HMRC covered by this judgement and is also pursuing connected claims in respect of a number of other periods, but there remains significant uncertainty over their recoverability.

The successful claims predominately relate to policyholder funds, where the benefit is not expected to exceed £131 million. There is no current expectation of a material future impact on profit before tax attributable to shareholders' profits or the Group's total equity.

The uncertainty in respect of the remaining claims has resulted in no recoverable amounts being recognised at either 31 December 2017 or 31 December 2018.

(b) Deferred tax

(i) The balances at 31 December comprise:

	2018 £m	2017 £m
Deferred tax assets	185	146
Deferred tax liabilities	(1,885)	(2,562)
Net deferred tax liability	(1,700)	(2,416)
Less: Amounts classified as held for sale	—	183
	(1,700)	(2,233)

There are no amounts classified as held for sale within deferred tax at 31 December 2018 (2017: deferred tax assets £2 million and deferred tax liabilities £185 million).

49 – Tax assets and liabilities continued

(ii) The net deferred tax liability arises on the following items:

	2018 £m	2017 £m
Long-term business technical provisions and other insurance items	663	1,582
Deferred acquisition costs	(199)	(199)
Unrealised gains on investments	(1,430)	(2,899)
Pensions and other post-retirement obligations	(499)	(502)
Unused losses and tax credits	147	166
Subsidiaries, associates and joint ventures	(9)	(16)
Intangibles and additional value of in-force long-term business	(475)	(721)
Provisions and other temporary differences	102	173
Net deferred tax liability	(1,700)	(2,416)
Less: Amounts classified as held for sale	—	183
	(1,700)	(2,233)

(iii) The movement in the net deferred tax liability was as follows:

	2018 £m	2017 £m
Net liability at 1 January	(2,416)	(2,231)
Acquisition and disposal of subsidiaries ¹	184	(6)
Amounts credited/(charged) to income statement (note 14(a))	545	(123)
Amounts (charged) to other comprehensive income (note 14(b))	(9)	(31)
Foreign exchange rate movements	(10)	(18)
Other movements	6	(7)
Net liability at 31 December	(1,700)	(2,416)

¹ The movement during 2018 relates mainly to the disposal of Avipop Assicurazioni SpA and Avipop Vita SpA.

Deferred tax assets are recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. In countries where there is a history of tax losses, deferred tax assets are only recognised in excess of deferred tax liabilities if there is convincing evidence that future taxable profits will be available. Where this is the case, the directors have relied on business plans supporting future profits.

The Group has unrecognised gross tax losses (excluding capital losses) and other temporary differences of £798 million (2017: £787 million) to carry forward against future taxable income of the necessary category in the companies concerned. Of these, trading losses of £34 million will expire within the next 20 years. The remaining losses have no expiry date.

In addition, the Group has unrecognised gross capital losses of £452 million (2017: £443 million). These have no expiry date.

There are no temporary differences in respect of unremitted overseas retained earnings for which deferred tax liabilities have not been recognised at 31 December 2018 (2017: £nil).

50 – Pension deficits and other provisions

This note details the non-insurance provisions that the Group holds, and shows the movements in these during the year.

(a) Carrying amounts

	2018 £m	2017 £m
Total IAS 19 obligations to main staff pension schemes (note 51(a))	693	764
Deficits in other staff pension schemes	65	64
Total IAS 19 obligations to staff pension schemes	758	828
Restructuring provisions	64	92
Other provisions	577	515
Total provisions	1,399	1,435
Less: Amounts classified as held for sale	—	(6)
	1,399	1,429

Other provisions primarily include amounts set aside throughout the Group relating to product governance rectification and staff entitlements.

(b) Movements on restructuring and other provisions

	2018			2017		
	Restructuring provisions £m	Other provisions £m	Total £m	Restructuring provisions £m	Other provisions £m	Total £m
At 1 January	92	515	607	111	501	612
Additional provisions	1	269	270	31	161	192
Provisions released during the period	—	(128)	(128)	(1)	(37)	(38)
Change due to discounting	—	—	—	2	—	2
Charge to income statement	1	141	142	32	124	156
Utilised during the year	(29)	(89)	(118)	(53)	(98)	(151)
Acquisition/(disposal) of subsidiaries	—	5	5	—	(3)	(3)
Foreign exchange rate movements	—	5	5	2	(9)	(7)
At 31 December	64	577	641	92	515	607

Of the total restructuring and other provisions, £402 million (2017: £182 million) is expected to be settled more than one year after the statement of financial position date.

Other provisions have increased during the period under review mainly due to an increase of £175 million in respect of a product governance provision in the UK, which is in addition to the £75 million provision set aside at 31 December 2017. This provision relates to a historical issue with over 90% of cases identified being pre-2002 and is limited to advised sales by Friends Provident, where a number of external defined benefit pension arrangements transferred into Friends Provident pension arrangements. We are in the final stages of completing a thorough and detailed review of the suitability of the advice given, and we will ensure that no affected customers are financially disadvantaged. The valuation of this provision involves a high degree of judgement and estimation uncertainty due to the time that has elapsed since the advice was given. The issue does not affect any other part of our business. The Group has notified its professional indemnity insurers and intends to make a claim on its insurance to mitigate the financial impact. This impact on other provisions has been partially offset by a £78 million release of a provision related to the sale of Aviva USA in 2013.

51 – Pension obligations

(a) Introduction

The Group operates a number of defined benefit and defined contribution pension schemes. The material defined benefit schemes are in the UK, Ireland and Canada. The assets and liabilities of these defined benefit schemes as at 31 December 2018 are shown below.

	2018				2017			
	UK £m	Ireland £m	Canada £m	Total £m	UK £m	Ireland £m	Canada £m	Total £m
Total fair value of scheme assets (see b(ii) below)	17,059	775	249	18,083	17,744	658	276	18,678
Present value of defined benefit obligation	(14,246)	(950)	(324)	(15,520)	(14,824)	(847)	(372)	(16,043)
Net IAS 19 surpluses/(deficits) in the schemes	2,813	(175)	(75)	2,563	2,920	(189)	(96)	2,635
Surpluses included in other assets (note 30)	3,256	—	—	3,256	3,399	—	—	3,399
Deficits included in provisions (note 50)	(443)	(175)	(75)	(693)	(479)	(189)	(96)	(764)
Net IAS 19 surpluses/(deficits) in the schemes	2,813	(175)	(75)	2,563	2,920	(189)	(96)	2,635

This note relates to the defined benefit pension schemes included in the table above. There are a number of smaller schemes that are also measured under IAS 19. These are included as a total within Deficits in other staff pension schemes (see note 50). Similarly, while the charges to the income statement for the main schemes are shown in section (b)(i) below, the total charges for all pension schemes are disclosed in section (d) below.

Under the IAS 19 valuation basis, the Group applies the principles of IFRIC 14, 'IAS 19 – The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction', whereby a surplus is only recognised to the extent that the Company is able to access the surplus either through an unconditional right of refund to the surplus or through reduced future contributions relating to ongoing service, which have been substantively enacted or contractually agreed. The Group has determined that it can derive economic benefit from the surplus in the ASPS via a reduction to future employer contributions for DC members, which could theoretically be paid from the surplus funds in the ASPS. In the RAC and FPPS, the Group has determined that the rules set out in the schemes' governing documentation provide for an unconditional right to a refund from any future surplus funds in the schemes.

The assets of the UK, Irish and Canadian schemes are held in separate trustee-administered funds to meet long-term pension liabilities to past and present employees. In all schemes, the appointment of trustees of the funds is determined by their trust documentation and they are required to act in the best interests of the schemes' beneficiaries. The long-term investment objectives of the trustees and the employers are to limit the risk of the assets failing to meet the liabilities of the schemes over the long term, and to maximise returns consistent with an acceptable level of risk so as to control the long-term costs of these schemes.

A funding actuarial valuation of each of the defined benefit schemes is carried out at least every three years for the benefit of scheme trustees and members. Actuarial reports have been submitted for each scheme within this period, using appropriate methods for the respective countries on local funding bases.

The number of scheme members was as follows:

	United Kingdom		Ireland		Canada	
	2018 Number	2017 Number	2018 Number	2017 Number	2018 Number	2017 Number
Deferred members	47,977	50,737	2,544	1,855	519	581
Pensioners	38,433	37,840	897	801	1,318	1,334
Total members	86,410	88,577	3,441	2,656	1,837	1,915

All schemes are closed to future accrual. Closure of the schemes has removed the volatility associated with additional future accrual for active members.

(i) UK schemes

In the UK, the Group operates three main pension schemes, the Aviva Staff Pension Scheme (ASPS), the smaller RAC (2003) Pension Scheme which was retained after the sale of RAC Limited in September 2011 and the Friends Provident Pension Scheme (FPPS) which was acquired as part of the Friends Life acquisition in 2015. As the defined benefit section of the UK schemes are now closed to both new members and future accrual, existing deferred members in active service and new entrants participate in the defined contribution section of the ASPS. The UK schemes operate within the UK pensions' regulatory framework.

(ii) Other schemes

In Ireland, the Group operates two main pension schemes, the Aviva Ireland Staff Pension Fund (AISPf) and the Friends First Group Retirement and Death Benefits Scheme (FFPS) which was acquired as part of the Friends First acquisition in June 2018 (see note 3). Future accruals for the AISPf and FFPS schemes ceased with effect from 30 April 2013 and 1 April 2014 respectively. The Irish schemes are regulated by the Pensions Authority in Ireland.

The Canadian defined benefit schemes ceased with effect from 31 December 2011. The main Canadian plan is a Registered Pension Plan in Canada and as such is registered with the Canada Revenue Agency and Financial Services Commission of Ontario and is required to comply with the Income Tax of Canada and the various provincial Pension Acts within Canada.

51 – Pension obligations continued

(b) IAS 19 disclosures

Disclosures under IAS 19 for the material defined benefit schemes in the UK, Ireland and Canada, are given below. Where schemes provide both defined benefit and defined contribution pensions, the assets and liabilities shown exclude those relating to defined contribution pensions.

(i) Movements in the scheme surpluses and deficits

Movements in the pension schemes' surpluses and deficits comprise:

	Fair Value of Scheme Assets £m	Present Value of defined benefit obligation £m	IAS 19 Pensions net surplus/ (deficits) £m
2018			
Net IAS 19 surplus in the schemes at 1 January	18,678	(16,043)	2,635
Past service costs – amendments ¹	—	(63)	(63)
Administrative expenses ²	—	(19)	(19)
Total pension cost charged to net operating expenses	—	(82)	(82)
Net interest credited/(charged) to investment income/(finance costs) ³	442	(375)	67
Total recognised in income	442	(457)	(15)
Remeasurements:			
Actual return on these assets	(182)	—	(182)
Less: Interest income on scheme assets	(442)	—	(442)
Return on scheme assets excluding amounts in interest income	(624)	—	(624)
Gains from change in financial assumptions	—	622	622
Losses from change in demographic assumptions	—	(185)	(185)
Experience losses	—	(93)	(93)
Total recognised in other comprehensive income	(624)	344	(280)
Acquisitions	87	(96)	(9)
Employer contributions	236	—	236
Plan participant contributions	9	(9)	—
Benefits paid	(724)	724	—
Administrative expenses paid from scheme assets ²	(23)	19	(4)
Foreign exchange rate movements	2	(2)	—
Net IAS 19 surplus in the schemes at 31 December	18,083	(15,520)	2,563

¹ Past service costs include a charge of £63 million relating to the estimated additional liability arising in the UK defined benefit pension schemes as a result of the requirement to equalise members' benefits for the effects of Guaranteed Minimum Pension (GMP). This additional liability has arisen following the High Court judgement in October 2018 in the case involving Lloyds Banking Group.

² Administrative expenses are expensed as incurred.

³ Net interest income of £89 million has been credited to investment income and net interest expense of £22 million has been charged to finance costs (see note 8).

The present value of unfunded post-retirement benefit obligations included in the table above is £115 million at 31 December 2018 (2017: £129 million).

The decrease in the surplus during the period is primarily due to remeasurements recognised in other comprehensive income relating to updated demographic assumptions in the ASPS, partially offset by employer contributions paid into the schemes.

	Fair Value of Scheme Assets £m	Present Value of defined benefit obligation £m	IAS 19 Pensions net surplus/ (deficits) £m
2017			
Net IAS 19 surplus in the schemes at 1 January	19,694	(17,347)	2,347
Past service costs – amendments	—	(1)	(1)
Administrative expenses ¹	—	(18)	(18)
Total pension cost charged to net operating expenses	—	(19)	(19)
Net interest credited/(charged) to investment income/(finance costs) ²	470	(407)	63
Total recognised in income	470	(426)	44
Remeasurements:			
Actual return on these assets	740	—	740
Less: Interest income on scheme assets	(470)	—	(470)
Return on scheme assets excluding amounts in interest income	270	—	270
Losses from change in financial assumptions	—	(182)	(182)
Losses from change in demographic assumptions	—	(30)	(30)
Experience losses	—	(63)	(63)
Total recognised in other comprehensive income	270	(275)	(5)
Employer contributions	259	—	259
Plan participant contributions	9	(9)	—
Benefits paid	(2,021)	2,021	—
Administrative expenses paid from scheme assets ¹	(21)	18	(3)
Foreign exchange rate movements	18	(25)	(7)
Net IAS 19 surplus in the schemes at 31 December	18,678	(16,043)	2,635

¹ Administrative expenses are expensed as incurred.

² Net interest income of £87 million has been credited to investment income and net interest expense of £24 million has been charged to finance costs (see note 8).

51 – Pension obligations continued

(ii) Scheme assets

Scheme assets are stated at their fair values at 31 December 2018.

Total scheme assets are comprised by scheme as follows:

	2018				2017			
	UK £m	Ireland £m	Canada £m	Total £m	UK £m	Ireland £m	Canada £m	Total £m
Bonds								
Fixed interest	6,121	493	148	6,762	6,925	408	163	7,496
Index-linked	10,409	293	—	10,702	11,744	292	—	12,036
Equities	—	—	—	—	129	—	—	129
Property	353	—	—	353	365	—	—	365
Pooled investment vehicles	4,738	555	100	5,393	4,955	238	107	5,300
Derivatives	(65)	4	—	(61)	(34)	4	—	(30)
Cash and other ¹	(3,877)	(570)	1	(4,446)	(5,710)	(284)	6	(5,988)
Total fair value of scheme assets	17,679	775	249	18,703	18,374	658	276	19,308
Less: consolidation elimination for non-transferable Group insurance policy ²	(620)	—	—	(620)	(630)	—	—	(630)
Total IAS 19 fair value of scheme assets	17,059	775	249	18,083	17,744	658	276	18,678

1 Cash and other assets comprise cash at bank, insurance policies, receivables, payables and repurchase agreements. At 31 December 2018, cash and other assets primarily consist of repurchase agreements of £3,741 million (2017: £5,386 million).

2 As at 31 December 2018, the FPPS's cash and other balances include an insurance policy of £620 million (2017: £630 million) issued by a Group company that is not transferable under IAS 19 and is consequently eliminated from the Group's IAS 19 scheme assets.

Total scheme assets are analysed by those that have a quoted market price in an active market and other as follows:

	2018			2017		
	Total Quoted £m	Total Unquoted £m	Total £m	Total Quoted £m	Total Unquoted £m	Total £m
Bonds						
Fixed interest	3,569	3,193	6,762	4,334	3,162	7,496
Index-linked	10,278	424	10,702	11,627	409	12,036
Equities	—	—	—	35	94	129
Property	—	353	353	—	365	365
Pooled investment vehicles	478	4,915	5,393	167	5,133	5,300
Derivatives	(9)	(52)	(61)	4	(34)	(30)
Cash and other ¹	(1,195)	(3,251)	(4,446)	(1,801)	(4,187)	(5,988)
Total fair value of scheme assets	13,121	5,582	18,703	14,366	4,942	19,308
Less: consolidation elimination for non-transferable Group insurance policy ²	—	(620)	(620)	—	(630)	(630)
Total IAS 19 fair value of scheme assets	13,121	4,962	18,083	14,366	4,312	18,678

1 Cash and other assets comprise cash at bank, insurance policies, receivables, payables and repurchase agreements. At 31 December 2018, cash and other assets primarily consist of repurchase agreements of £3,741 million (2017: £5,386 million).

2 As at 31 December 2018, the FPPS's cash and other balances includes an insurance policy of £620 million (2017: £630 million) issued by a Group company that is not transferable under IAS 19 and is consequently eliminated from the Group's IAS 19 scheme assets.

IAS 19 plan assets include investments in Group-managed funds in the consolidated statement of financial position of £2,730 million (2017: £2,091 million) and transferable insurance policies with other Group companies of £156 million (2017: £172 million) in the ASPs. Where the investment and insurance policies are in segregated funds with specific asset allocations, they are included in the appropriate line in the table above, otherwise they appear in 'Cash and other'. There are no significant judgements involved in the valuation of the scheme assets.

(iii) Assumptions on scheme liabilities

The valuations used for accounting under IAS 19 have been based on the most recent funding actuarial valuations, updated to take account of the standard's requirements in order to assess the liabilities of the material schemes at 31 December 2018.

The projected unit credit method

The inherent uncertainties affecting the measurement of scheme liabilities require these to be measured on an actuarial basis. This involves discounting the best estimate of future cash flows to be paid out by the scheme using the projected unit credit method. This is an accrued benefits valuation method which calculates the past service liability to members and makes allowance for their projected future earnings. It is based on a number of actuarial assumptions, which vary according to the economic conditions of the countries in which the relevant businesses are situated, and changes in these assumptions can materially affect the measurement of the pension obligations.

51 – Pension obligations continued

Financial assumptions

The main financial assumptions used to calculate scheme liabilities under IAS 19 are:

	UK		Ireland		Canada	
	2018	2017	2018	2017	2018	2017
Inflation rate ¹	3.3%/2.2%	3.2%/2.1%	1.6%	1.7%	2.0%	2.0%
General salary increases ²	5.1%	5.0%	3.1%	3.2%	2.5%	2.5%
Pension increases ³	3.3%/2.2%	3.2%/2.1%	0.4%	0.4%	1.25%	1.25%
Deferred pension increases ³	3.3%/2.2%	3.2%/2.1%	1.6%	1.7%	—	—
Discount rate ^{4,5}	2.7%/ 2.6%(pensioners)/ 2.7%(deferred)	2.4%/ 2.4%(pensioners)/ 2.4%(deferred)	1.8%/1.9%	1.9%	3.75%	3.25%
Basis of discount rate	AA-rated corporate bonds		AA-rated corporate bonds		AA-rated corporate bonds	

1 For the UK schemes, assumptions provided for RPI/CPI. In the UK, the assumptions for the ASPS and RAC schemes are the single rates for RPI/CPI; for FPPS, relevant RPI/CPI swap curves are used, which are broadly equivalent to these single rates.

2 In the UK, the only remaining linkage between pension benefits and general salary increases is in respect of a small amount of Guaranteed Minimum Pension benefits, in line with National Average Earnings.

3 For the UK schemes, assumptions provided for RPI/CPI. In the UK, the assumptions for the ASPS and RAC schemes are single rates for RPI/CPI; for FPPS, relevant RPI/CPI swap curves are used, which are broadly equivalent to these single rates. The assumptions are also adjusted to reflect the relevant caps/floors and the inflation volatility.

4 To calculate scheme liabilities in the UK, a single discount rate is used in ASPS/RAC, whereas in FPPS, separate discount rates are used for the defined benefit obligation for pensioners and deferred.

5 For the Irish schemes, a discount rate of 1.8% and 1.9% is used for AISPF and FPPS respectively, reflecting the differences in the duration of the liabilities between the two schemes.

The discount rate and pension increase rate are the two assumptions that have the largest impact on the value of the liabilities, with the difference between them being known as the net discount rate. For each country, the discount rate is based on current average yields of high-quality debt instruments taking account of the maturities of the defined benefit obligations.

Mortality assumptions

Mortality assumptions are material in measuring the Group's obligations under its defined benefit schemes. The assumptions used are summarised in the table below and have been selected to reflect the characteristics and experience of the membership of these schemes.

The mortality tables, average life expectancy and pension duration used at 31 December 2018 for scheme members are as follows:

			Life expectancy/(pension duration) at NRA of a male		Life expectancy/(pension duration) at NRA of a female	
		Normal retirement age (NRA)	Currently aged	20 years younger than NRA	Currently aged	20 years younger than NRA
Mortality table						
UK – ASPS	Club Vita pooled experience, including an allowance for future improvements	60	88.8 (28.8)	90.7 (30.7)	90.2 (30.2)	92.5 (32.5)
– RAC	SAPS, including allowances for future improvement	65	87.1 (22.1)	89.0 (24.0)	89.0 (24.0)	90.6 (25.6)
– FPPS	SAPS, including allowances for future improvement	60	87.9 (27.9)	90.4 (30.4)	90.5 (30.5)	92.6 (32.6)
Ireland – AISPF	89% PNA00 with allowance for future improvements	61	88.6 (27.6)	92.0 (31.0)	91.5 (30.5)	94.8 (33.8)
– FFPS	88%/91% ILT15 with allowance for future improvements	68	86.8 (18.8)	89.1 (21.1)	89.1 (21.1)	91.1 (23.1)
Canada	Canadian Pensioners' Mortality 2014 Private Table, including allowance for future improvements	65	87.0 (22.0)	88.4 (23.4)	89.5 (24.5)	90.8 (25.8)

The assumptions above are based on commonly used mortality tables. The tables make allowance for observed variations in such factors as age, gender, pension amount, salary and postcode-based lifestyle group, and have been adjusted to reflect recent research into mortality experience. However, the extent of future improvements in longevity is subject to considerable uncertainty and judgement is required in setting this assumption. For the ASPS, which is the most material scheme to the Group, the allowance for mortality improvement is per the actuarial profession's 'CMI_2017 (S=7.5) Advanced with adjustments' model (2017: 'CMI_2016 (S=7.5) Advanced with adjustments'), with a long-term improvement rate of 1.75% (2017: 1.75%) for males and 1.5% (2017: 1.5%) for females. The CMI_2017 tables have been adjusted by adding 0.25% (2017: 0.25%) and 0.35% (2017: 0.35%) to the initial rate of mortality improvements for males and females respectively (to allow for greater mortality improvements in the pension scheme membership relative to the general population on which CMI_2017 is based), and uses the advanced parameters to taper the long-term improvement rates to zero between ages 90 and 115 (the 'core' parameters taper the long-term improvement rates to zero between ages 85 and 110).

Sensitivity analysis

Significant actuarial assumptions for the determination of the defined benefit obligation are discount rate, inflation rate and mortality. The sensitivity analysis below has been determined by changing the respective assumptions whilst holding all other assumptions constant. The following table summarises how the defined benefit obligation would have increased/(decreased) as a result of the change in the respective assumptions:

Impact on present value of defined benefit obligation

	Increase in discount rate +1% £m	Decrease in discount rate -1% £m	Increase in inflation rate +1% £m	Decrease in inflation rate -1% £m	1 year younger ¹ £m
Impact on present value of defined benefit obligation at 31 December 2018	(2,502)	3,317	2,275	(1,788)	536
Impact on present value of defined benefit obligation at 31 December 2017	(2,680)	3,576	2,526	(1,929)	565

1 The effect of assuming all members in the schemes were one year younger.

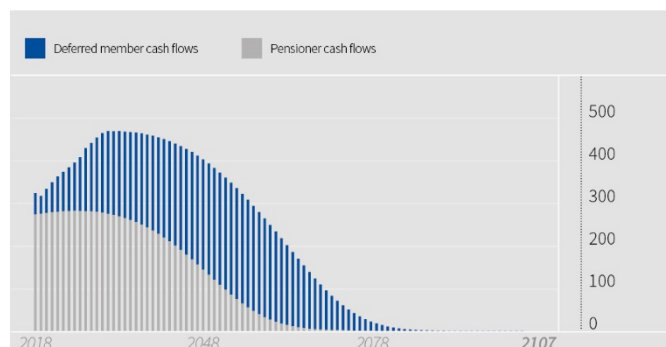
51 – Pension obligations continued

It is unlikely that the changes in assumptions would occur in isolation of one another as some of the assumptions may be correlated. Furthermore, the present value of the defined benefit obligation has been calculated using the projected unit credit method, which is the same as that applied in calculating the defined benefit obligation recognised within the consolidated statement of financial position. In addition, the sensitivities shown are for liabilities only and ignore the impact on assets, which would significantly mitigate the net interest rate and inflation sensitivity impact on the net surplus.

Maturity profile of the defined benefit obligation

The discounted scheme liabilities have an average duration of 19 years in ASPS, 20 years in FPPS, 18 years in the RAC scheme, 19 years in AISPF, 28 years in FFPS and 11 years in the Canadian scheme. The expected undiscounted benefits payable from the main UK defined benefit scheme, ASPS, is shown in the chart below:

Undiscounted benefit payments (£m)



(iv) Risk management and asset allocation strategy

As noted above, the long-term investment objectives of the trustees and the employers are to limit the risk of the assets failing to meet the liabilities of the schemes over the long-term, and to maximise returns consistent with an acceptable level of risk so as to control the long-term costs of these schemes. To meet these objectives, the schemes' assets are invested in a portfolio, consisting primarily of debt securities as detailed in section (b)(ii). The investment strategy will continue to evolve over time and is expected to match the liability profile increasingly closely with swap overlays to improve interest rate and inflation matching. The schemes are generally matched to interest rate risk relative to the funding bases.

Main UK scheme

The Company works closely with the trustee, who is required to consult with the Company on the investment strategy.

Interest rate and inflation rate risks are managed using a combination of liability-matching assets and swaps. Exposure to equity risk has been reducing over time and credit risk is managed within risk appetite. Currency risk is relatively small and is largely hedged. The other principal risk is longevity risk. This risk has reduced due to the ASPS entering into a longevity swap in 2014 covering approximately £5 billion of pensioner in payment scheme liabilities.

Other schemes

The other schemes are considerably less material but their risks are managed in a similar way to those in the main UK scheme. In 2015, the RAC pension scheme entered into a longevity swap covering approximately £600 million of pensioner in payment scheme liabilities.

(v) Funding

Formal actuarial valuations normally take place every three years and where there is a deficit, the Group and the trustees would agree a deficit recovery plan. The assumptions adopted for triennial actuarial valuations are determined by the trustees and agreed with the Group and are normally more prudent than the assumptions adopted for IAS19 purposes, which are best estimate.

For the ASPS, following the latest formal actuarial valuation (with an effective date of 31 March 2015) a schedule of contributions was agreed with the trustees, even though the ASPS was fully funded on its technical provisions basis consistent with the requirements of the UK pension regulations. The ASPS is currently undergoing a triennial actuarial valuation as at 31 March 2018.

Total employer contributions for all schemes in 2019 are currently expected to be £0.2 billion.

(c) Defined contribution (money purchase) section of the ASPS

The trustees have responsibility for selecting a range of suitable funds in which the members can choose to invest in and for monitoring the performance of the available investment funds. Members are responsible for reviewing the level of contributions they pay and the choice of investment fund to ensure these are appropriate to their risk appetite and their retirement plans. Members of this section contribute at least 2% of their pensionable salaries, and depending on the percentage chosen, the Group contributes up to a maximum 14%, together with the cost of the death-in-service benefits. These contribution rates remained unchanged until June 2017. From 1 July 2017, for every 1% additional employee contribution, the Group will contribute an additional 0.1% employer contribution. The amount recognised as an expense for defined contribution schemes is shown in section (d) below.

51 – Pension obligations continued

(d) Charge to staff costs in the income statement

The total pension charge to staff costs for all of the Group's defined benefit and defined contribution schemes were:

	2018 £m	2017 £m
Continuing operations		
UK defined benefit schemes	22	22
Overseas defined benefit schemes	1	1
Total defined benefit schemes (note 11(b))	23	23
UK defined contribution schemes	143	121
Overseas defined contribution schemes	20	25
Total defined contribution schemes (note 11(b))	163	146
Total charge for pension schemes	186	169

There were no significant contributions payable or prepaid in the consolidated statement of financial position as at either 31 December 2018 or 2017.

52 – Borrowings

Our borrowings are classified as either core structural borrowings, which are included within the Group's capital employed, or operational borrowings drawn by operating subsidiaries. This note shows the carrying values and contractual maturity amounts of each type, and explains their main features and movements during the year.

(a) Analysis of total borrowings

Total borrowings comprise:

	2018 £m	2017 £m
Core structural borrowings, at amortised cost	7,699	8,640
Operational borrowings, at amortised cost	496	466
Operational borrowings, at fair value	1,225	1,180
	1,721	1,646
	9,420	10,286

(b) Core structural borrowings

(i) The carrying amounts of these borrowings are:

	2018 £m	2017 £m
Subordinated debt		
6.125% £700 million subordinated notes 2036	694	694
6.125% £800 million undated subordinated notes	797	796
6.875% £600 million subordinated notes 2058	594	594
6.875% €500 million subordinated notes 2038	—	444
12.000% £162 million subordinated notes 2021	191	202
8.250% £500 million subordinated notes 2022	563	581
6.625% £450 million subordinated notes 2041	449	448
7.875% \$575 million undated subordinated notes	—	437
6.125% €650 million subordinated notes 2043	582	575
3.875% €700 million subordinated notes 2044	625	618
5.125% £400 million subordinated notes 2050	395	394
3.375% €900 million subordinated notes 2045	799	789
4.500% C\$450 million subordinated notes 2021	257	264
4.375% £400 million subordinated notes 2049	394	394
	6,340	7,230
Senior notes		
0.100% €350 million senior notes 2018	—	310
0.625% €500 million senior notes 2023	446	441
1.875% €750 million senior notes 2027	667	—
	1,113	751
Commercial paper	251	668
	7,704	8,649
Less: Amount held by Group companies	(5)	(9)
Total	7,699	8,640

52 – Borrowings continued

In 2018 the Group redeemed two subordinated debt instruments in full at their first call date, reduced the outstanding commercial paper balance and issued further senior debt. Further details are set out below:

- On 22 May 2018, the Group redeemed its €500 million 6.875% subordinated notes in full at first call date
- On 8 November 2018, the Group redeemed its \$575 million 7.875% undated subordinated notes in full at first call date
- On 13 November 2018, Aviva plc issued €750 million of senior notes at 1.875% which mature in 2027
- On 13 December 2018, the Group's €350 million 0.100% senior notes matured
- The outstanding commercial paper balance was reduced to £251 million (2017: £668 million) during 2018

All the above borrowings are stated at amortised cost.

(ii) The contractual maturity dates of undiscounted cash flows for these borrowings are:

	2018			2017		
	Principal £m	Interest £m	Total £m	Principal £m	Interest £m	Total £m
Within one year	251	376	627	978	427	1,405
1 to 5 years	1,370	1,353	2,723	928	1,627	2,555
5 to 10 years	673	1,490	2,163	444	1,759	2,203
10 to 15 years	—	1,441	1,441	—	1,756	1,756
Over 15 years	5,365	2,923	8,287	6,216	3,282	9,498
Total contractual undiscounted cash flows	7,659	7,583	15,241	8,566	8,851	17,417

Borrowings are considered current if the contractual maturity dates are within a year. Where subordinated debt is undated or loan notes are perpetual, the interest payments have not been included beyond 15 years. Annual interest payments in future years for these borrowings are £49 million (2017: £82 million).

Contractual undiscounted interest payments are calculated based on underlying fixed interest rates or prevailing market floating rates as applicable. Year end exchange rates have been used for interest projections on loans in foreign currencies.

(c) Operational borrowings

(i) The carrying amounts of these borrowings are:

	2018 £m	2017 £m
Amounts owed to financial institutions		
Loans	496	466
Securitised mortgage loan notes		
UK lifetime mortgage business (note 25(b))	1,225	1,180
Total	1,721	1,646

All the above borrowings are stated at amortised cost, except for the loan notes issued in connection with the UK lifetime mortgage business of £1,225 million (2017: £1,180 million). These loan notes are carried at fair value, their values are modelled on risk-adjusted cash flows for defaults discounted at a risk-free rate plus a market-determined liquidity premium, and are therefore classified as 'Level 3' in the fair value hierarchy. The risk allowances are consistent with those used in the fair value asset methodology, as described in note 23. These have been designated at fair value through profit and loss in order to present the relevant mortgages, borrowings and derivative financial instruments at fair value, since they are managed as a portfolio on a fair value basis. This presentation provides more relevant information and eliminates any accounting mismatch.

The securitised mortgage loan notes are at various fixed, floating and index-linked rates. Further details about these notes are given in note 25.

(ii) The contractual maturity dates of undiscounted cash flows for these borrowings are:

	2018			2017		
	Principal £m	Interest £m	Total £m	Principal £m	Interest £m	Total £m
Within one year	257	49	306	174	52	226
1 to 5 years	535	185	720	547	202	749
5 to 10 years	555	163	718	548	178	726
10 to 15 years	180	142	322	325	140	465
Over 15 years	136	154	290	208	144	352
Total contractual undiscounted cash flows	1,663	693	2,356	1,802	716	2,518

Contractual undiscounted interest payments are calculated based on underlying fixed interest rates or prevailing market floating rates as applicable. Year-end exchange rates have been used for interest projections on loans in foreign currencies.

52 – Borrowings continued

(d) Description and features

(i) Subordinated debt

A description of each of the subordinated notes is set out in the table below:

Notional amount	Issue date	Redemption date	Callable at par at option of the Company from	In the event the Company does not call the notes, the coupon will reset at each applicable reset date to
£700 million	14 Nov 2001	14 Nov 2036	16 Nov 2026	5 year Benchmark Gilt + 2.85%
£800 million	29 Sep 2003	Undated	29 Sep 2022	5 year Benchmark Gilt + 2.40%
£600 million	20 May 2008	20 May 2058	20 May 2038	3 month LIBOR + 3.26%
£162 million	21 May 2009	21 May 2021	N/A	N/A
£500 million	21 April 2011	21 April 2022	N/A	N/A
£450 million	26 May 2011	3 June 2041	3 June 2021	6 Month LIBOR + 4.136%
£650 million	5 July 2013	5 July 2043	5 July 2023	5 year EUR mid-swaps + 5.13%
£700 million	3 July 2014	3 July 2044	3 July 2024	5 year EUR mid-swaps + 3.48%
£400 million	4 June 2015	4 June 2050	4 December 2030	3 month Euribor + 4.022%
£900 million	4 June 2015	4 December 2045	4 December 2025	3 month Euribor + 3.55%
C\$450 million	9 May 2016	10 May 2021	N/A	N/A
£400 million	12 September 2016	12 September 2049	12 September 2029	3 month LIBOR + 4.721%

Subordinated notes issued by the Company rank below its senior obligations and ahead of its preference shares and ordinary share capital. The dated subordinated notes rank ahead of the undated subordinated notes. The fair value of notes at 31 December 2018 was £6,610 million (2017: £8,348 million), calculated with reference to quoted prices.

(ii) Senior notes

All senior notes are at fixed rates and their total fair value at 31 December 2018 was £1,113 million (2017: £756 million).

(iii) Commercial paper

The commercial paper consists of £251 million issued by the Company (2017: £668 million) and is considered core structural funding. The fair value of the commercial paper is considered to be the same as its carrying value and all issuances are repayable within one year.

(iv) Loans

Loans owed to financial institutions comprise:

	2018 £m	2017 £m
Non-recourse		
Loans to property partnerships	61	61
UK Life reinsurance	177	111
Other non-recourse loans	52	58
	290	230
Other loans	206	236
	496	466

As explained in accounting policy D, the UK long-term business policyholder funds have invested in a number of property funds and structures (the 'Property Funds'), some of which have raised external debt, secured on the relevant Property Fund's property portfolio. The lenders are only entitled to obtain payment of interest and principal to the extent there are sufficient resources in the relevant Property Fund and they have no recourse whatsoever to the policyholder or shareholders' funds of any companies in the Group. Loans of £61 million (2017: £61 million) included in the table above relate to Property Funds.

At 31 December 2018 the obligations to repay third parties arising out of financial reinsurance operations were £177 million (2017: £111 million).

Other non-recourse loans primarily include external debt raised by special purpose vehicles in the UK long-term business. The lenders have no recourse whatsoever to the shareholders' funds of any companies in the Group. The outstanding balance of these loans at 31 December 2018 was £52 million (2017: £58 million).

Other loans of £206 million (2017: £236 million) include external debt raised by overseas long-term businesses to fund operations.

(v) Securitised mortgage loan notes

Loan notes have been issued by special purpose securitisation companies in the UK. Details are given in note 25.

52 – Borrowings continued

(e) Movements during the year

Movements in borrowings during the year were:

	2018			2017		
	Core Structural £m	Operational £m	Total £m	Core Structural £m	Operational £m	Total £m
New borrowings drawn down, excluding commercial paper, net of expenses	649	126	775	—	55	55
Repayment of borrowings, excluding commercial paper ¹	(1,178)	(211)	(1,389)	(488)	(151)	(639)
Movement in commercial paper ²	(419)	—	(419)	—	—	—
Net cash outflow	(948)	(85)	(1,033)	(488)	(96)	(584)
Foreign exchange rate movements	42	6	48	104	(17)	87
Borrowings reclassified/(loans repaid) for non-cash consideration	—	65	65	484	(13)	471
Fair value movements	—	89	89	—	108	108
Amortisation of discounts and other non-cash items	(35)	—	(35)	(37)	(16)	(53)
Movements in debt held by Group companies ³	—	—	—	—	(38)	(38)
Movements in the year	(941)	75	(866)	63	(72)	(9)
Balance at 1 January	8,640	1,646	10,286	8,577	1,718	10,295
Balance at 31 December	7,699	1,721	9,420	8,640	1,646	10,286

1 On 28 September 2017, notification was given that the Group would redeem the \$650 million fixed rate tier 1 notes. At that date, the instrument was reclassified as a financial liability of £484 million, representing its fair value on translation into Sterling at that date. On 3 November 2017 the instrument was redeemed in full at a cost of £488 million.

2 Gross issuances of commercial paper were £2,372 million in 2018 (2017: £1,265 million), offset by repayments of £2,791 million (2017: £1,265 million).

3 Certain subsidiary companies have purchased issued subordinated notes and securitised loan notes as part of their investment portfolios. In the consolidated statement of financial position, borrowings are shown net of these holdings but movements in such holdings over the year are reflected in the tables above.

All movements in fair value in 2017 and 2018 on securitised mortgage loan notes designated as fair value through profit or loss were attributable to changes in market conditions.

(f) Undrawn borrowings

The Group has the following undrawn committed central borrowing facilities available to them, which are used to support the commercial paper programme:

	2018 £m	2017 £m
Expiring within one year	—	—
Expiring beyond one year	1,650	1,650
	1,650	1,650

53 – Payables and other financial liabilities

This note analyses our payables and other financial liabilities at the end of the year.

	2018 £m	2017 £m
Payables arising out of direct insurance	1,374	1,276
Payables arising out of reinsurance operations	464	304
Deposits and advances received from reinsurers	129	129
Bank overdrafts (see below)	563	499
Derivative liabilities (note 60)	5,571	5,766
Amounts due to brokers for investment purchases	240	112
Obligations for repayment of cash collateral received	6,714	6,817
Other financial liabilities	1,853	1,598
Total	16,908	16,501
Less: Amounts classified as held for sale	(26)	(42)
	16,882	16,459
Expected to be settled within one year	10,800	11,460
Expected to be settled in more than one year	6,108	5,041
	16,908	16,501

Bank overdrafts amount to £153 million (2017: £115 million) in life business operations and £410 million (2017: £384 million) in general insurance business and other operations.

All payables and other financial liabilities are carried at cost, which approximates to fair value, except for derivative liabilities, which are carried at their fair values.

54 – Other liabilities

This note analyses our other liabilities at the end of the year.

	2018 £m	2017 £m
Deferred income	138	133
Reinsurers' share of deferred acquisition costs	19	17
Accruals	1,266	1,236
Other liabilities	1,653	1,440
Total	3,076	2,826
Less: Amounts classified as held for sale	(33)	(35)
	3,043	2,791
Expected to be settled within one year	2,451	2,276
Expected to be settled in more than one year	625	550
	3,076	2,826

55 – Contingent liabilities and other risk factors

This note sets out the main areas of uncertainty over the calculation of our liabilities.

(a) Uncertainty over claims provisions

Note 43 gives details of the estimation techniques used by the Group to determine the general insurance business outstanding claims provisions and of the methodology and assumptions used in determining the long-term business provisions. These approaches are designed to allow for the appropriate cost of policy-related liabilities, with a degree of prudence, to give a result within the normal range of outcomes. However, the actual cost of settling these liabilities may differ, for example because experience may be worse than that assumed, or future general insurance business claims inflation may differ from that expected, and hence there is uncertainty in respect of these liabilities.

(b) Asbestos, pollution and social environmental hazards

In the course of conducting insurance business, various companies within the Group receive general insurance liability claims, and become involved in actual or threatened related litigation arising therefrom, including claims in respect of pollution and other environmental hazards. Amongst these are claims in respect of asbestos production and handling in various jurisdictions, including Europe, Canada and Australia. Given the significant delays that are experienced in the notification of these claims, the potential number of incidents they cover and the uncertainties associated with establishing liability, the ultimate cost cannot be determined with certainty. However, on the basis of current information having regard to the level of provisions made for general insurance claims and substantial reinsurance cover now in place, the directors consider that any additional costs arising are not likely to have a material impact on the financial position of the Group.

(c) Guarantees on long-term savings products

As a normal part of their operating activities, various Group companies have given guarantees and options, including interest rate guarantees, in respect of certain long-term insurance and investment products. Note 45 gives details of these guarantees and options. In providing these guarantees and options, the Group's capital position is sensitive to fluctuations in financial variables including foreign currency exchange rates, interest rates, property values and equity prices. Interest rate guaranteed returns, such as those available on guaranteed annuity options, are sensitive to interest rates falling below the guaranteed level. Other guarantees, such as maturity value guarantees and guarantees in relation to minimum rates of return, are sensitive to fluctuations in the investment return below the level assumed when the guarantee was made. The directors continue to believe that the existing provisions for such guarantees and options are sufficient.

(d) Regulatory compliance

The Group's insurance and investment business is subject to local regulation in each of the countries in which it operates. A number of the Group's UK subsidiaries are dual regulated (directly authorised by both the PRA (for prudential regulation) and the FCA (for conduct regulation) while others are solo regulated (regulated solely by the FCA for both prudential and conduct regulation). Between them, the PRA and FCA have broad powers including the authority to grant, vary the terms of, or cancel a regulated firm's authorisation; to investigate marketing and sales practices; and to require the maintenance of adequate financial resources. The Group's regulators outside the UK typically have similar powers, but in some cases they also operate a system of 'prior product approval'.

The Group's regulated businesses have compliance resources to respond to regulatory enquiries in a constructive way, and take corrective action when warranted. However, all regulated financial services companies face the risk that their regulator could find that they have failed to comply with applicable regulations or have not undertaken corrective action as required.

The impact of any such finding (whether in the UK or overseas) could have a negative impact on the Group's reported results or on its relations with current and potential customers. Regulatory action against a member of the Group could result in adverse publicity for, or negative perceptions regarding, the Group, or could have a material adverse effect on the business of the Group, its results, operations and/or financial condition and divert management's attention from the day-to-day management of the business.

(e) Structured settlements

The Group has purchased annuities from licensed Canadian life insurers to provide for fixed and recurring payments to claimants. As a result of these arrangements, the Group is exposed to credit risk to the extent that any of the life insurers fail to fulfill their obligations. The Group's maximum exposure to credit risk for these types of arrangements is approximately CAD\$1,235 million as at 31 December 2018 (2017: CAD\$1,213 million). Credit risk is managed by acquiring annuities from a diverse portfolio of life insurers with proven financial stability. This risk is reduced to the extent of coverage provided by Assuris, the Canadian life insurance industry compensation plan. As at 31 December 2018, no information has come to the Group's attention that would suggest any weakness or failure in life insurers from which it has purchased annuities and consequently no provision for credit risk is required.

55 – Contingent liabilities and other risk factors continued

(f) Other

In the course of conducting insurance and investment business, various Group companies receive liability claims, and become involved in actual or threatened related litigation. In the opinion of the directors, adequate provisions have been established for such claims and no material loss will arise in this respect.

In addition, in line with standard business practice, various Group companies have given guarantees, indemnities and warranties in connection with disposals in recent years of subsidiaries and associates to parties outside the Aviva Group. In the opinion of the directors, no material unprovisioned loss will arise in respect of these guarantees, indemnities and warranties.

There are a number of charges registered over the assets of Group companies in favour of other Group companies or third parties. In addition, certain of the Company's assets are charged in favour of certain of its subsidiaries as security for intra-Group loans.

56 – Commitments

This note gives details of our commitments to capital expenditure and under operating leases.

(a) Capital commitments

Contractual commitments for acquisitions or capital expenditures of infrastructure loans, equity funds, investment property and property and equipment, which have not been recognised in the financial statements, are as follows:

	2018 £m	2017 £m
Infrastructure loan advances	898	782
Investment property	42	42
Property and equipment	77	53
Other investment vehicles ¹	266	265
	1,283	1,142

¹ Represents commitments for further investment in certain private equity vehicles. Such commitments do not expose the Group to the risk of future losses in excess of its investment.

Contractual obligations for future repairs and maintenance on investment properties are £nil (2017: £nil). Notes 19 and 20 set out the commitments the Group has to its joint ventures and associates.

(b) Operating lease commitments

(i) Future contractual aggregate minimum lease rentals receivable under non-cancellable operating leases are as follows:

	2018 £m	2017 £m
Within 1 year	294	317
Later than 1 year and not later than 5 years	921	980
Later than 5 years	1,430	1,408
	2,645	2,705

(ii) Future contractual aggregate minimum lease payments under non-cancellable operating leases are as follows:

	2018 £m	2017 £m
Within 1 year	94	101
Later than 1 year and not later than 5 years	321	339
Later than 5 years	313	413
	728	853
Total future minimum sub-lease payments expected to be received under non-cancellable sub-leases	33	44

57 – Group capital management

(a) Introduction

Group capital is represented by Solvency II own funds¹. At 31 December 2018, the estimated Solvency II shareholder own funds amounts to £23.6 billion (2017: £24.7 billion). The Solvency II position disclosed is based on a 'shareholder view'. The shareholder view is considered by management to be more representative of the shareholders' risk exposure and the Group's ability to cover the Solvency Capital Requirement (SCR) with eligible own funds and aligns with management's approach to dynamically manage its capital position.

In arriving at the shareholder position, the following adjustments are typically made to the regulatory Solvency II own funds:

- The contribution to the Group's own funds of the most material fully ring fenced with-profits funds of £2.6 billion at 31 December 2018 (2017: £3.3 billion) and staff pension schemes in surplus of £1.1 billion at 31 December 2018 (2017: £1.5 billion) are excluded. These exclusions have no impact on Solvency II surplus. The most material fully ring fenced with-profit funds and staff pension schemes are self-supporting on a Solvency II capital basis with any surplus capital above Solvency Capital Requirements ('SCR') not recognised in the Group position.
- A notional reset of the transitional measure on technical provisions (TMTP), calculated using the same method as used for formal TMTP resets. This presentation avoids step changes to Solvency II own funds that arise only when the formal TMTP reset points are triggered. The 31 December 2018 Solvency II own funds include a notional reset (£0.1 billion decrease in own funds) while the 31 December 2017 Solvency II own funds included a formal, rather than notional, reset of the TMTP in line with the regulatory requirement to reset the TMTP at least every two years or in the event of a material change in the risk profile. The TMTP is amortised on a straight-line basis over 16 years from 1 January 2016 in line with the Solvency II rules.
- Pro forma adjustments are made if the Solvency II shareholder cover ratio does not fully reflect the effect of transactions or capital actions that are known as at each reporting date. Such adjustments may be required in respect of planned acquisitions and disposals, group reorganisations and adjustments to the Solvency II valuation basis arising from changes to the underlying regulations or updated interpretations provided by EIOPA. The 31 December 2018 Solvency II own funds include two pro forma adjustments to reflect known or highly likely events that could materially impact the Group's solvency position post 31 December 2018. These pro forma adjustments relate to the disposal of FPI (£0.1 billion reduction in own funds) and the potential impact of an expected change to Solvency II regulations on the treatment of equity release mortgages (£nil impact on own funds as at 31 December 2018). The 31 December 2017 Solvency II own funds included the pro forma impact of the disposals of FPI (£0.1 billion reduction in own funds) and Avipop in Italy (£0.1 billion increase in own funds).

Solvency II own funds are comprised of a combination of shareholders' funds, preference share capital, direct capital instrument, tier 1 notes, subordinated debt, and deferred tax assets measured on a Solvency II basis. Refer to note 57(c) for further details on Solvency II.

Management also considers a capital employed metric prepared on an IFRS basis in managing capital and measuring business unit performance. The total capital employed comprises of similar items to Solvency II own funds but measured in accordance with IFRS and includes senior debt. In particular, analysis of return on equity calculated based on the capital employed has been used as one of the inputs to management's decision making process for capital allocation purposes.

The primary objective of capital management is to maintain an efficient capital structure, in a manner consistent with our risk profile and the regulatory and market requirements of our business.

Capital is a primary consideration across a wide range of business activities, including product development, pricing, business planning, merger and acquisition transactions and asset and liability management. A Capital Management Standard, applicable Group-wide, sets out minimum standards and guidelines over responsibility for capital management including considerations for capital management decisions and requirements for management information, capital monitoring, reporting, forecasting, planning and overall governance.

¹ Own funds is capital available to cover the Solvency Capital Requirement (SCR) and Minimum Capital Requirement (MCR) under Solvency II.

57 – Group capital management continued

The Group manages capital in conjunction with solvency capital requirements, and seeks to, on a consistent basis:

- Match the profile of our assets and liabilities, taking into account the risks inherent in each business
- Maintain sufficient, but not excessive, financial strength in accordance with risk appetite, to support new business growth and satisfy the requirements of our regulators and other stakeholders giving both our customers and shareholders assurance of our financial strength. Refer to note 59 for more information about the Group's risk management approach
- Retain financial flexibility by maintaining strong liquidity, access to a range of capital markets and significant unutilised committed credit lines
- Allocate capital rigorously to support value adding growth and repatriate excess capital where appropriate
- Declare dividends with reference to factors including growth in cash flow and earnings

(b) IFRS basis

The table below shows how our capital is deployed by market and how that capital is funded.

	2018 Capital employed £m	2017 Capital employed £m
Life business		
United Kingdom ¹	10,266	11,493
France	2,885	2,704
Poland	319	352
Italy	686	954
Other Europe	380	422
Europe	4,270	4,432
Asia	1,691	1,558
	16,227	17,483
General insurance & health		
United Kingdom General Insurance ^{1,2}	1,509	1,872
United Kingdom Health ¹	122	106
Canada	1,290	1,364
France	585	589
Poland	131	140
Italy	148	319
Other Europe	185	203
Europe	1,049	1,251
Asia	—	10
	3,970	4,603
Fund management	545	520
Corporate and other business^{1,2,3}	5,412	5,169
Total capital employed	26,154	27,775
Financed by		
Equity shareholders' funds	16,558	16,969
Non-controlling interests	966	1,235
Direct capital instrument and tier 1 notes	731	731
Preference shares	200	200
Subordinated debt ⁴	6,335	7,221
Senior debt	1,364	1,419
Total capital employed⁵	26,154	27,775

1 Non-insurance operations relating to the UK have been reclassified to their respective market segments to better reflect the management of the underlying businesses consistent with the segmental analysis shown in note 5.

2 Capital employed for United Kingdom General Insurance excludes c.£0.9 billion (2017: c.£0.9 billion) of goodwill which does not support the general insurance business for capital purposes and is included in Corporate and other business.

3 Corporate and other business includes centrally held tangible net assets, the main UK staff pension scheme surplus and also reflects internal lending arrangements. These internal lending arrangements, which net out on consolidation, include the formal loan arrangement between Aviva Group Holdings Limited and Aviva Insurance Limited.

4 Subordinated debt excludes amounts held by Group companies of £5 million (2017: £9 million).

5 Goodwill, AVIF and other intangibles are maintained within the capital base. Goodwill includes goodwill in subsidiaries of £1,872 million (2017: £1,876 million), goodwill in joint ventures of £13 million (2017: £17 million) and goodwill in associates of Enil (2017: Enil). AVIF and other intangibles comprise £3,201 million (2017: £3,455 million) of intangibles in subsidiaries, £33 million (2017: £40 million) of intangibles in joint ventures and Enil (2017: Enil) of intangibles in associates, net of deferred tax liabilities of £(475) million (2017: £(721) million) and the non-controlling interest share of intangibles of £(31) million (2017: £(254) million).

Total capital employed is financed by a combination of equity shareholders' funds, preference capital, subordinated debt and other borrowings. At 31 December 2018, the Group had £26.2 billion (2017: £27.8 billion) of total capital employed in our trading operations measured on an IFRS basis.

57 – Group capital management continued

During 2018, Aviva has undertaken a number of actions to deploy its excess capital.

On 1 May 2018, the Group announced a share buy-back of ordinary shares, which was completed for an aggregate purchase price of £600 million. Shares totalling 119,491,188 (2017: 57,724,500 shares) were purchased and subsequently cancelled bringing the total cancelled under the programme to 177,215,688 shares, completing the share buy-back programme for an aggregate price of £900 million.

During the year, the Group also redeemed two subordinated debt instruments in full at their first call date, reduced the outstanding commercial paper balance and issued one senior debt. Further details are set out below:

- On 22 May 2018, the Group redeemed its €500 million 6.875% subordinated notes in full at first call date
- On 8 November 2018, the Group redeemed its \$575 million 7.875% undated subordinated notes in full at first call date
- On 13 November 2018, Aviva plc issued €750 million of senior notes at 1.875% which mature in 2027
- On 13 December 2018, the Group's €350 million 0.100% senior notes matured
- The outstanding commercial paper balance was reduced to £251 million (2017: £668 million)

At 31 December 2018, the market value of our external debt (subordinated debt and senior debt), preference shares (including both Aviva plc preference shares of £200 million and General Accident plc preference shares, within non-controlling interests, of £250 million), and direct capital instrument and tier 1 notes was £9,278 million (2017: £11,311 million).

(c) Solvency II basis

Solvency II is the Europe-wide prudential regulatory framework that came into force on 1 January 2016 and put in place a consistent solvency framework for insurers across Europe. This capital regime requires insurers to calculate regulatory capital adequacy at both individual regulated subsidiaries and an aggregate Group level. Non-EEA entities have been included in Group solvency in line with Solvency II requirements. Other financial sector entities (including fund management) are included at their proportional share of the capital requirement according to the relevant sectoral values.

Solvency II surplus at the Group level represents the excess of eligible Solvency II own funds over the Group's solvency capital requirements calculated in accordance with Solvency II requirements. The Group maintained capital in excess of the solvency capital requirement (SCR) at all times during 2018. Further information on the Group's Solvency II position, including details of available capital resources and solvency surplus, determined using the shareholder view of Solvency II, can be found in the Other information section. This information is estimated and is therefore subject to change. It is also unaudited.

In addition, non-EEA businesses including Canada, Hong Kong and Singapore, are subject to the locally applicable capital requirements in the jurisdictions in which they operate.

All regulated subsidiaries complied with their capital requirements throughout the year.

58 – Statement of cash flows

This note gives further detail behind the figures in the statement of cash flows.

(a) The reconciliation of profit before tax to the net cash inflow from operating activities is:

	2018 £m	2017 £m
Profit before tax	1,652	2,374
Adjustments for:		
Share of profits of joint ventures and associates	(112)	(41)
Dividends received from joint ventures and associates	43	51
(Profit)/loss on sale of:		
Investment property	(69)	(30)
Property and equipment	1	—
Subsidiaries, joint ventures and associates	(102)	(135)
Investments	(6,434)	(6,711)
	(6,604)	(6,876)
Fair value (gains)/losses on:		
Investment property	(307)	(481)
Investments	27,909	(6,983)
Borrowings	89	108
	27,691	(7,356)
Depreciation of property and equipment	40	35
Equity compensation plans, equity settled expense	64	77
Impairment and expensing of:		
Goodwill on subsidiaries	13	2
Financial investments, loans and other assets	10	6
Acquired value of in-force business and intangibles	—	15
Non-financial assets	—	7
	23	30
Amortisation of:		
Premium/discount on debt securities	587	720
Premium/discount on borrowings	(35)	(53)
Premium/discount on non-participating investment contracts	243	262
Financial instruments	16	26
Acquired value of in-force business and intangibles	392	392
	1,203	1,347
Change in unallocated divisible surplus	(3,237)	(294)
Interest expense on borrowings	551	610
Net finance income on pension schemes	(67)	(63)
Foreign currency exchange (gains)/losses	(164)	61
Changes in working capital		
Decrease in reinsurance assets	2,191	12,707
(Increase) in deferred acquisition costs	(98)	(389)
(Decrease)/increase in insurance liabilities and investment contracts	(11,808)	13,658
(Increase)/decrease in other assets	(1,708)	2,174
	(11,423)	28,150
Net purchases of operating assets		
Net purchases of investment property	(791)	(672)
Net proceeds on sale of investment property	959	1,065
Net sales of financial investments	(3,423)	(10,137)
	(3,255)	(9,744)
Total cash generated from operating activities	6,405	8,361

The cash flows presented in this statement cover all the Group's activities and include flows from both policyholder and shareholder activities. Operating cash flows reflect the movement in both policyholder and shareholder controlled cash and cash equivalent balances.

During the year the net operating cash inflow reflects a number of factors, including the level of premium income, payments of claims, creditors and surrenders and purchases and sales of operating assets including financial investments. It also includes changes in the size and value of consolidated cash investment funds and changes in the Group participation in these funds.

(b) Cash flows in respect of the acquisition of, and additions to, subsidiaries, joint ventures and associates comprised:

	2018 £m	2017 £m
Cash consideration for subsidiaries, joint ventures and associates acquired and additions	(165)	(32)
Less: Cash and cash equivalents acquired with subsidiaries	357	57
Total cash flow on acquisitions and additions	192	25

58 – Statement of cash flows continued

(c) Cash flows in respect of the disposal of subsidiaries, joint ventures and associates comprised:

	2018 £m	2017 £m
Cash proceeds from disposal of subsidiaries, joint ventures and associates	441	861
Less: Net cash and cash equivalents divested with subsidiaries	(60)	(910)
Total cash flow on disposals	381	(49)

The above figures form part of cash flows from investing activities.

(d) Cash and cash equivalents in the statement of cash flows at 31 December comprised:

	2018 £m	2017 £m
Cash at bank and in hand	7,615	6,293
Cash equivalents	39,557	37,793
	47,172	44,086
Bank overdrafts	(563)	(499)
	46,609	43,587

Cash and cash equivalents reconciles to the statement of financial position as follows:

	2018 £m	2017 £m
Cash and cash equivalents (excluding bank overdrafts)	47,172	44,086
Less: Assets classified as held for sale	(688)	(739)
	46,484	43,347

59 – Risk management

This note sets out the major risks our businesses and our shareholders face and describes the Group's approach to managing these. It also gives sensitivity analysis around the major economic and non-economic assumptions that can cause volatility in the Group's earnings and capital position.

(a) Risk management framework

The risk management framework in Aviva forms an integral part of the management and Board processes and decision-making framework across the Group. The key elements of our risk management framework comprise risk appetite; risk governance, including risk policies and business standards, risk oversight committees and roles and responsibilities; and the processes we use to identify, measure, manage, monitor and report risks, including the use of our risk models and stress and scenario testing.

For the purposes of risk identification and measurement, and aligned to Aviva's risk policies, risks are usually grouped by risk type: credit, market, liquidity, life insurance (including long-term health), general insurance (including short-term health), asset management and operational risk. Risks falling within these types may affect a number of metrics including those relating to balance sheet strength, liquidity and profit. They may also affect the performance of the products we deliver to our customers and the service to our customers and distributors, which can be categorised as risks to our brand and reputation or as conduct risk.

To promote a consistent and rigorous approach to risk management across all businesses we have a set of risk policies and business standards which set out the risk strategy, appetite, framework and minimum requirements for the Group's worldwide operations. The business chief executive officers make an annual declaration supported by an opinion from the business chief risk officers that the system of governance and internal controls was effective and fit for purpose for their business throughout the year.

A regular top-down key risk identification and assessment process is carried out by the risk function. This includes the consideration of emerging risks and is supported by deeper thematic reviews. This process is replicated at the business unit level. The risk assessment processes are used to generate risk reports which are shared with the relevant risk committees.

Risk models are an important tool in our measurement of risks and are used to support the monitoring and reporting of the risk profile and in the consideration of the risk management actions available. We carry out a range of stress (where one risk factor, such as equity returns, is assumed to vary) and scenario (where combinations of risk factors are assumed to vary) tests to evaluate their impact on the business and the management actions available to respond to the conditions envisaged. For those risk types managed through the holding of capital, being our principal risk types except for liquidity risk, we measure and monitor our risk profile on the basis of the Solvency II solvency capital requirement.

Roles and responsibilities for risk management in Aviva are based around the 'three lines of defence model' where ownership for risk is taken at all levels in the Group. Line management in the business is accountable for risk management, including the implementation of the risk management framework and embedding of the risk culture. The risk function is accountable for quantitative and qualitative oversight and challenge of the risk identification, measurement, monitoring, management and reporting processes and for developing the risk management framework. Internal Audit provides an independent assessment of the risk framework and internal control processes.

Board oversight of risk and risk management across the Group is maintained on a regular basis through its Risk Committee and Governance Committee. The Board has overall responsibility for determining risk appetite, which is an expression of the risk the business is willing to take. Risk appetites are set relative to capital and liquidity at Group and in the business units.

59 – Risk management continued

Risk appetites, requiring management action if breached, are also set for interest rate and foreign exchange risk (calculated on the basis of the Solvency II solvency capital requirement), and liquidity risk (based on stressing forecast central liquid assets and cash inflows and outflows over a specified time horizon). For other risk types the Group sets Solvency II capital tolerances. The Group's position against risk appetite and capital tolerances is monitored and reported to the Board on a regular basis. Long-term sustainability depends upon the protection of franchise value and good customer relationships. As such, Aviva has a risk preference that we will not accept risks that materially impair the reputation of the Group and requires that customers are always treated with integrity. The oversight of risk and risk management at the Group level is supported by the Asset Liability Committee, which focuses on business and financial risks, and the Operational Risk Committee which focuses on operational and reputational risks. Similar committee structures with equivalent terms of reference exist in the business units.

The risk management framework of a small number of our joint ventures and strategic equity holdings differs from the Aviva framework outlined in this note. We work with these entities to understand how their risks are managed and to align them, where possible, with Aviva's framework.

Further information on the types and management of specific risk types is given in sections (b) to (j) below.

(b) Credit risk

Credit risk is the risk of financial loss as a result of the default or failure of third parties to meet their payment obligations to Aviva, or variations in market values as a result of changes in expectations related to these risks. Credit risk is taken so that we can provide the returns required to satisfy policyholder liabilities and to generate returns for our shareholders. In general we prefer to take credit risk over equity and property risks, due to the better expected risk adjusted return, our credit risk analysis capability and the structural investment advantages conferred to insurers with long-dated, relatively illiquid liabilities.

Our approach to managing credit risk recognises that there is a risk of adverse financial impact resulting from fluctuations in credit quality of third parties including default, rating transition and credit spread movements. Our credit risks arise principally through exposures to debt security investments, structured asset investments, bank deposits, derivative counterparties, mortgage lending and reinsurance counterparties.

The Group manages its credit risk at business unit and Group level. All business units are required to implement credit risk management processes (including limits frameworks), operate specific risk management committees, and ensure detailed reporting and monitoring of their exposures against pre-established risk criteria. At Group level, we manage and monitor all exposures across our business units on a consolidated basis, and operate a Group limit framework that must be adhered to by all.

A detailed breakdown of the Group's current credit exposure by credit quality is shown below.

(i) Financial exposures by credit ratings

Financial assets are graded according to current external credit ratings issued. AAA is the highest possible rating. Investment grade financial assets are classified within the range of AAA to BBB ratings. Financial assets which fall outside this range are classified as sub-investment grade. The following table provides information regarding the aggregated credit risk exposure of the Group for financial assets with external credit ratings. 'Not rated' assets capture assets not rated by external ratings agencies.

	AAA	AA	A	BBB	Below BBB	Not rated	Carrying value including held for sale £m	Less: Amounts classified as held for sale £m	Carrying value £m
As at 31 December 2018									
Debt securities	10.3%	33.6%	18.2%	25.1%	6.5%	6.3%	169,686	(397)	169,289
Reinsurance assets	—	83.1%	10.0%	2.7%	—	4.2%	11,800	(45)	11,755
Other investments	0.2%	0.1%	0.3%	0.1%	—	99.3%	52,812	(6,644)	46,168
Loans	—	5.6%	—	—	—	94.4%	28,785	—	28,785
Total							263,083	(7,086)	255,997
As at 31 December 2017									
Debt securities	10.6%	32.5%	20.0%	23.3%	7.8%	5.8%	175,948	(1,140)	174,808
Reinsurance assets	—	87.3%	8.2%	1.9%	—	2.6%	13,615	(123)	13,492
Other investments	—	0.2%	0.3%	0.1%	—	99.4%	53,277	(6,971)	46,306
Loans	—	7.1%	—	—	—	92.9%	27,863	(6)	27,857
Total							270,703	(8,240)	262,463

The majority of non-rated debt securities within shareholder assets are held by our businesses in the UK. Of these securities most are allocated an internal rating using a methodology largely consistent with that adopted by an external rating agency, and are considered to be of investment grade credit quality; these include £3.6 billion (2017: £2.0 billion) of debt securities held in our UK Life business, predominantly made up of private placements and other corporate bonds, which have been internally rated as investment grade.

59 – Risk management continued

The following table provides information on the Group's exposure by credit ratings to financial assets that meet the definition of 'solely payment of principal and interest' (SPPI). Further information on the assessment criteria for SPPI may be found in note 23(c).

	AAA £m	AA £m	A £m	BBB £m	Below BBB £m	Not rated £m
Loans	—	1,620	—	—	—	894
Receivables	6	213	294	214	—	5,122
Accrued income & interest	—	—	18	—	—	175
Other financial assets	—	—	10	—	—	—
Total	6	1,833	322	214	—	6,191

At the period end, the Group held cash and cash equivalents of £13,246 million that met the SPPI criteria, of which £13,231 million is placed with financial institutions with issuer ratings within the range of AAA to BBB. Further information on the extent to which unrated receivables, including those that meet the SPPI criteria, are past due may be found in section (ix) of this note.

The Group continues to hold a series of macro credit hedges to reduce the overall credit risk exposure. The Group's maximum exposure to credit risk of financial assets, without taking collateral or these hedges into account, is represented by the carrying value of the financial instruments in the statement of financial position. These comprise debt securities, reinsurance assets, derivative assets, loans and receivables. The carrying values of these assets are disclosed in the relevant notes: financial investments (note 27), reinsurance assets (note 46), loans (note 24) and receivables (note 28). The collateral in place for these credit exposures is disclosed in note 61 Financial assets and liabilities subject to offsetting, enforceable master netting arrangements and similar agreements.

(ii) Other investments

Other investments (including assets of operations classified as held for sale) include unit trusts and other investment vehicles; derivative financial instruments, representing positions to mitigate the impact of adverse market movements; and other assets, including deposits with credit institutions and minority holdings in property management undertakings.

The credit quality of the underlying debt securities within investment vehicles is managed by the safeguards built into the investment mandates for these funds which determine the funds' risk profiles. At the Group level, we also monitor the asset quality of unit trusts and other investment vehicles against Group set limits.

A proportion of the assets underlying these investments are represented by equities and so credit ratings are not generally applicable. Equity exposures are managed against agreed benchmarks that are set with reference to overall appetite for market risk.

(iii) Loans

The Group loan portfolio principally comprises:

- Policy loans which are generally collateralised by a lien or charge over the underlying policy;
- Loans and advances to banks which primarily relate to loans of cash collateral received in stock lending transactions. These loans are fully collateralised by other securities;
- Healthcare, infrastructure and PFI loans secured against healthcare, education, social housing and emergency services related premises; and
- Mortgage loans collateralised by property assets.

We use loan to value, interest and debt service cover, and diversity and quality of the tenant base metrics to internally monitor our exposures to mortgage loans. We use credit quality, based on dynamic market measures, and collateralisation rules to manage our stock lending activities. Policy loans are loans and advances made to policyholders, and are collateralised by the underlying policies.

(iv) Credit concentration risk

The long-term and general insurance businesses are generally not individually exposed to significant concentrations of credit risk due to the regulations applicable in most markets and the Group credit policy and limits framework, which limit investments in individual assets and asset classes. Credit concentrations are monitored as part of the regular credit monitoring process and are reported to the Group Asset Liability Committee (ALCO). With the exception of government bonds the largest aggregated counterparty exposure within shareholder assets is to the Swiss Reinsurance Company Ltd (including subsidiaries), representing approximately 2.3% of the total shareholder assets.

(v) Reinsurance credit exposures

The Group is exposed to concentrations of risk with individual reinsurers due to the nature of the reinsurance market and the restricted range of reinsurers that have acceptable credit ratings. The Group operates a policy to manage its reinsurance counterparty exposures, by limiting the reinsurers that may be used and applying strict limits to each reinsurer. Reinsurance exposures are aggregated with other exposures to ensure that the overall risk is within appetite. The Group Capital and Group Risk teams have an active monitoring role with escalation to the Chief Financial Officer (CFO), Chief Risk Officer (CRO), Group ALCO and the Board Risk Committee as appropriate.

The Group's largest reinsurance counterparty is Swiss Reinsurance Company Ltd (including subsidiaries). At 31 December 2018, the reinsurance asset recoverable, including debtor balances, from Swiss Reinsurance Company Ltd was £2,835 million (2017: £2,902 million). Up until late 2018, BlackRock Life Ltd had been the Group's largest reinsurance counterparty as a result of the BlackRock funds offered to UK Life customers via unit-linked contracts. However, as a result of action taken to restructure the agreements with BlackRock Life Ltd the reinsurance asset recoverable, including debtor balances, from BlackRock Life Ltd as at 31 December 2018 has been reduced to £2,457 million (2017: £5,307 million).

(vi) Securities finance

The Group has significant securities financing operations within the UK and smaller operations in some other businesses. The risks within this activity are mitigated by collateralisation and minimum counterparty credit quality requirements.

59 – Risk management continued

(vii) Derivative credit exposures

The Group is exposed to counterparty credit risk through derivative trades. This risk is generally mitigated through holding collateral for most trades. Residual exposures are captured within the Group's credit management framework.

(viii) Unit-linked business

In unit-linked business the policyholder bears the direct market risk and credit risk on investment assets in the unit funds and the shareholders' exposure to credit risk is limited to the extent of the income arising from asset management charges based on the value of assets in the fund.

(ix) Impairment of financial assets

In assessing whether financial assets carried at amortised cost or classified as available for sale are impaired, due consideration is given to the factors outlined in accounting policies (T) and (V). The following table provides information regarding the carrying value of financial assets subject to impairment testing that have been impaired and the ageing of those assets that are past due but not impaired. The table excludes assets carried at fair value through profit or loss and held for sale.

	Neither past due nor impaired £m	Financial assets that are past due but not impaired				Financial assets that have been impaired £m	Carrying value £m
		0–3 months £m	3–6 months £m	6 months–1 year £m	Greater than 1 year £m		
As at 31 December 2018							
Debt securities	1,675	—	—	5	—	—	1,680
Reinsurance assets	7,791	—	—	—	—	—	7,791
Other investments	1	—	—	—	—	—	1
Loans	3,259	—	—	—	—	—	3,259
Receivables and other financial assets	8,776	74	16	11	2	—	8,879

	Neither past due nor impaired £m	Financial assets that are past due but not impaired				Financial assets that have been impaired £m	Carrying value £m
		0–3 months £m	3–6 months £m	6 months–1 year £m	Greater than 1 year £m		
As at 31 December 2017							
Debt securities	1,726	—	—	—	—	—	1,726
Reinsurance assets	7,521	—	—	—	—	—	7,521
Other investments	1	—	—	—	—	—	1
Loans	3,465	—	—	—	—	—	3,465
Receivables and other financial assets	8,185	78	12	5	5	—	8,285

Excluded from the tables above are financial and reinsurance assets carried at fair value through profit or loss that are not subject to impairment testing, as follows: £168.0 billion of debt securities (2017: £174.2 billion), £52.8 billion of other investments (2017: £53.3 billion), £25.5 billion of loans (2017: £24.4 billion) and £4.0 billion of reinsurance assets (2017: £6.1 billion).

Where assets have been classed as 'past due and impaired', an analysis is made of the risk of default and a decision is made whether to seek to mitigate the risk. There were no material financial assets that would have been past due or impaired had the terms not been renegotiated.

(c) Market risk

Market risk is the risk of adverse financial impact resulting, directly or indirectly from fluctuations in interest rates, inflation, foreign currency exchange rates, equity and property prices. Market risk arises in business units due to fluctuations in both the value of liabilities and the value of investments held. At Group level, it also arises in relation to the overall portfolio of international businesses and in the value of investment assets owned directly by the shareholders. We actively seek some market risks as part of our investment and product strategy. However, we have limited appetite for interest rate risk as we do not believe it is adequately rewarded.

The management of market risk is undertaken at business unit and at Group level. Businesses manage market risks locally using the Group market risk framework and within local regulatory constraints. Group Capital is responsible for monitoring and managing market risk at Group level and has established criteria for matching assets and liabilities to limit the impact of mismatches due to market movements.

In addition, where the Group's long-term savings businesses have written insurance and investment products where the majority of investment risks are borne by its policyholders, these risks are managed in line with local regulations and marketing literature, in order to satisfy the policyholders' risk and reward objectives. The Group writes unit-linked business in a number of its operations. The shareholders' exposure to market risk on this business is limited to the extent that income arising from asset management charges is based on the value of assets in the fund.

The most material types of market risk that the Group is exposed to are described below.

(i) Equity price risk

The Group is subject to direct equity price risk arising from changes in the market values of its equity securities portfolio. Our most material indirect equity price risk exposures are to policyholder unit-linked funds, which are exposed to a fall in the value of the fund thereby reducing the fees we earn on those funds, and participating contracts, which are exposed to a fall in the value of the funds thereby increasing our costs for policyholder guarantees. We also have some equity exposure in shareholder funds through equities held to match inflation-linked liabilities.

59 – Risk management continued

We continue to limit our direct equity exposure in line with our risk preferences. At a business unit level, investment limits and local investment regulations require that business units hold diversified portfolios of assets thereby reducing exposure to individual equities. The Group does not have material holdings of unquoted equity securities.

Equity risk is also managed using a variety of derivative instruments, including futures and options. Businesses actively model the performance of equities through the use of risk models, in particular to understand the impact of equity performance on guarantees, options and bonus rates. An equity hedging strategy remains in place to help control the Group's overall direct and indirect exposure to equities. At 31 December 2018 the Group continues to hold a series of macro equity hedges to reduce the overall shareholder equity risk exposure.

Sensitivity to changes in equity prices is given in section (j) Risk and capital management, below.

(ii) Property price risk

The Group is subject to property price risk directly due to holdings of investment properties in a variety of locations worldwide and indirectly through investments in mortgages and mortgage backed securities. Investment in property is managed at business unit level, and is subject to local regulations on investments, liquidity requirements and the expectations of policyholders.

As at 31 December 2018, no material derivative contracts had been entered into to mitigate the effects of changes in property prices. Exposure to property risk on equity release mortgages from sustained underperformance in the UK House Price Index (HPI) is mitigated by capping loan to value on origination at low levels and regularly monitoring the performance of the mortgage portfolio.

Sensitivity to changes in property prices is given in section (j) Risk and capital management, below.

(iii) Interest rate risk

Interest rate risk arises primarily from the Group's investments in long-term debt and fixed income securities and their movement relative to the value placed on the insurance liabilities. A number of policyholder product features have an influence on the Group's interest rate risk. The major features include guaranteed surrender values, guaranteed annuity options, and minimum surrender and maturity values. Details of material guarantees and options are given in note 45.

Exposure to interest rate risk is monitored through several measures that include duration, capital modelling, sensitivity testing and stress and scenario testing. The impact of exposure to sustained low interest rates is considered within our scenario testing.

The Group typically manages interest rate risk by investing in fixed interest securities which closely match the interest rate sensitivity of the liabilities where such investments are available. In particular, a key objective is to at least match the duration of our annuity liabilities with assets of the same duration, and in some cases where appropriate cash flow matching has been used. These assets include corporate bonds, residential mortgages and commercial mortgages. Should they default before maturity, it is assumed that the Group can reinvest in assets of a similar risk and return profile, which is subject to market conditions. Interest rate risk is also managed in some business units using a variety of derivative instruments, including futures, options, swaps, caps and floors.

Some of the Group's products, principally participating contracts, expose us to the risk that changes in interest rates will impact on profits through a change in the interest spread (the difference between the amounts that we are required to pay under the contracts and the investment income we are able to earn on the investments supporting our obligations under those contracts). The primary markets where Aviva is exposed to this risk are the UK, France and Italy.

Despite the continued pick up in market interest rates from the historical lows experienced in 2016, the continued low interest rate environment in a number of markets around the world has resulted in our current reinvestment yields being lower than the overall current portfolio yield, primarily for our investments in fixed income securities and commercial mortgage loans. As long as market yields remain below the current portfolio level, the portfolio yield, and as a result net investment income, will continue to decline. While we anticipate interest rates may remain below historical averages before the 2008 financial crisis for some time to come, it is also possible that further future increases in interest rates or market anticipation of such increases, if larger and more rapid than expected, could adversely impact market values of our portfolio of fixed income securities and increase the risk of credit defaults and downgrades.

Other product lines of the Group, such as protection, are not significantly sensitive to interest rate or market movements. For unit-linked business, the shareholder margins emerging are typically a mixture of annual management fees and risk/expense charges. Risk and expense margins will be largely unaffected by low interest rates. Annual management fees may increase in the short term as the move towards low interest rates increases the value of unit funds. However, in the medium term, unit funds will grow at a lower rate which will reduce fund charges. For the UK annuities business interest rate exposure is mitigated by closely matching the duration of liabilities with assets of the same duration.

The UK participating business includes contracts with features such as guaranteed surrender values, guaranteed annuity options, and minimum surrender and maturity values. These liabilities are managed through duration matching of assets and liabilities and the use of derivatives, including swaptions. As a result, the Group's exposure to sustained low interest rates on this portfolio is not material. The Group's key exposure to low interest rates arises through its other participating contracts, principally in Italy and France. Some of these contracts also include features such as guaranteed minimum bonuses, guaranteed investment returns and guaranteed surrender values. In a low interest rate environment there is a risk that the yield on assets might not be sufficient to cover these obligations. For certain of its participating contracts the Group is able to amend guaranteed crediting rates. Our ability to lower crediting rates may be limited by competition, bonus mechanisms and contractual arrangements.

59 – Risk management continued

Details of material guarantees and options are given in note 45. In addition, the following table summarises the weighted average minimum guaranteed crediting rates and weighted average book value yields on assets as at 31 December 2018 for our Italian and French participating contracts, where the Group's key exposure to sustained low interest rates arises.

	Weighted average minimum guaranteed crediting rate	Weighted average book value yield on assets	Participating contract liabilities £m
France	0.70%	2.67%	67,956
Italy	0.48%	3.52%	19,010
Other ¹	N/A	N/A	44,329
Total	N/A	N/A	131,295

¹ 'Other' includes UK participating business

Profit before tax on General Insurance and Health Insurance business is generally a mixture of insurance, expense and investment returns. The asset portfolio is invested primarily in fixed income securities and the reduction in interest rates over the last decade has reduced the investment component of profit, although in 2018 there was a small partial reversal in this long term trend. The portfolio investment yield and average total invested assets in our general insurance and health business are set out in the table below.

	Portfolio investment yield ¹	Average assets £m
2016	2.47%	14,369
2017	2.07%	14,770
2018	2.28%	14,651

¹ Before realised and unrealised gains and losses and investment expenses

The nature of the business means that prices in certain circumstances can be increased to maintain overall profitability. This is subject to the competitive environment in each market. To the extent that there are further falls in interest rates the investment yield would be expected to decrease further in future periods.

Sensitivity to changes in interest rates is given in section (j) Risk and capital management, below.

(iv) Inflation risk

Inflation risk arises primarily from the Group's exposure to general insurance claims inflation, to inflation linked benefits within the defined benefit staff pension schemes and within the UK annuity portfolio and to expense inflation. Increases in long-term inflation expectations are closely linked to long-term interest rates and so are frequently considered with interest rate risk. Exposure to inflation risk is monitored through capital modelling, sensitivity testing and stress and scenario testing. The Group typically manages inflation risk through its investment strategy and, in particular, by investing in inflation linked securities and through a variety of derivative instruments, including inflation linked swaps.

59 – Risk management continued

(v) Currency risk

The Group has minimal exposure to currency risk from financial instruments held by business units in currencies other than their functional currencies, as nearly all such holdings are backing either unit-linked or with-profits contract liabilities or are hedged. As a result the foreign exchange gains and losses on investments are largely offset by changes in unit-linked and with-profits liabilities and fair value changes in derivatives attributable to changes in foreign exchange rates recognised in the income statement.

The Group operates internationally and as a result is exposed to foreign currency exchange risk arising from fluctuations in exchange rates of various currencies. Approximately 59% of the Group's premium income arises in currencies other than sterling and the Group's net assets are denominated in a variety of currencies, of which the largest are sterling, euro and Canadian dollars. The Group does not hedge foreign currency revenues as these are substantially retained locally to support the growth of the Group's business and meet local regulatory and market requirements. However, the Group does use foreign currency forward contracts to hedge planned dividends from its subsidiaries.

Businesses aim to maintain sufficient assets in local currency to meet local currency liabilities, however movements may impact the value of the Group's consolidated shareholders' equity which is expressed in sterling. This aspect of foreign exchange risk is monitored and managed centrally, against pre-determined limits. These exposures are managed by aligning the deployment of regulatory capital by currency with the Group's regulatory capital requirements by currency. Currency borrowings and derivatives are used to manage exposures within the limits that have been set. Except where the Group has applied net investment hedge accounting (see note 60(a)), foreign exchange gains and losses on foreign currency borrowings are recognised in the income statement, whereas foreign exchange gains and losses arising on consolidation from the translation of assets and liabilities of foreign subsidiaries are recognised in other comprehensive income. At 31 December 2018 and 2017, the Group's total equity deployment by currency including assets 'held for sale' was:

	Sterling £m	Euro £m	CAD\$ £m	Other £m	Total £m
Capital 31 December 2018	15,720	611	311	1,813	18,455
Capital 31 December 2017	16,776	444	309	1,606	19,135

A 10% change in sterling to euro/Canada\$ (CAD\$) period-end foreign exchange rates would have had the following impact on total equity.

	10% increase in sterling/euro rate £m	10% decrease in sterling/euro rate £m	10% increase in sterling/CAD\$ rate £m	10% decrease in sterling/CAD\$ rate £m
Net assets at 31 December 2018	(61)	77	(31)	31
Net assets at 31 December 2017	(44)	44	(31)	31

A 10% change in sterling to euro/Canada\$ (CAD\$) average foreign exchange rates applied to translate foreign currency profits would have had the following impact on profit before tax, including resulting gains and losses on foreign exchange hedges.

	10% increase in sterling/euro rate £m	10% decrease in sterling/euro rate £m	10% increase in sterling/CAD\$ rate £m	10% decrease in sterling/CAD\$ rate £m
Impact on profit before tax 31 December 2018	(60)	85	8	(9)
Impact on profit before tax 31 December 2017	(78)	95	6	(7)

The balance sheet changes arise from retranslation of business unit statements of financial position from their functional currencies into sterling, with above movements being taken through the currency translation reserve. These balance sheet movements in exchange rates therefore have no impact on profit. Net asset and profit before tax figures are stated after taking account of the effect of currency hedging activities.

(vi) Derivatives risk

Derivatives are used by a number of the businesses. Derivatives are primarily used for efficient investment management, risk hedging purposes, or to structure specific retail savings products. Activity is overseen by the Group Capital and Group Risk teams, which monitor exposure levels and approve large or complex transactions.

The Group applies strict requirements to the administration and valuation processes it uses, and has a control framework that is consistent with market and industry practice for the activity that is undertaken.

(vii) Correlation risk

The Group recognises that lapse behaviour and potential increases in consumer expectations are sensitive to and interdependent with market movements and interest rates. These interdependencies are taken into consideration in the internal capital model and in scenario analysis.

59 – Risk management continued

(d) Liquidity risk

Liquidity risk is the risk of not being able to make payments as they become due because there are insufficient assets in cash form. The relatively illiquid nature of insurance liabilities is a potential source of additional investment return by allowing us to invest in higher yielding, but less liquid assets such as commercial mortgages and infrastructure loans. The Group seeks to ensure that it maintains sufficient financial resources to meet its obligations as they fall due through the application of a Group liquidity risk policy and business standard and through the development of its liquidity risk management plan. At Group and business unit level, there is a liquidity risk appetite which requires that sufficient liquid resources be maintained to cover net outflows in a stress scenario. In addition to the existing liquid resources and expected inflows, the Group maintains significant undrawn committed borrowing facilities (£1,650 million) from a range of leading international banks to further mitigate this risk.

Maturity analyses

The following tables show the maturities of our insurance and investment contract liabilities, and of the financial and reinsurance assets held to meet them. A maturity analysis of the contractual amounts payable for borrowings and non-hedge derivatives is given in notes 52 and 60, respectively. Contractual obligations under operating leases and capital commitments are given in note 56.

(i) Analysis of maturity of insurance and investment contract liabilities

For non-linked insurance business, the following table shows the gross liability at 31 December 2018 and 2017 analysed by remaining duration. The total liability is split by remaining duration in proportion to the cash-flows expected to arise during that period, as permitted under IFRS 4, Insurance Contracts.

Almost all linked business and non-linked investment contracts may be surrendered or transferred on demand. For such contracts, the earliest contractual maturity date is therefore the current statement of financial position date, for a surrender amount approximately equal to the current statement of financial position liability. However, we expect surrenders, transfers and maturities to occur over many years, and therefore the tables below reflect the expected cash flows for these contracts, rather than their contractual maturity date. This table includes amounts held for sale.

As at 31 December 2018	Total £m	On demand or within 1 year £m	1-5 years £m	5-15 years £m	Over 15 years £m
Long-term business					
Insurance contracts – non-linked	106,622	8,421	25,940	40,548	31,713
Investment contracts – non-linked	75,158	5,547	19,199	28,572	21,840
Linked business	156,859	15,559	23,901	52,656	64,743
General insurance and health	16,368	6,859	6,758	2,217	534
Total contract liabilities	355,007	36,386	75,798	123,993	118,830

As at 31 December 2017	Total £m	On demand or within 1 year £m	1-5 years £m	5-15 years £m	Over 15 years £m
Long-term business					
Insurance contracts – non-linked	109,900	10,105	27,278	41,720	30,797
Investment contracts – non-linked	71,948	5,370	17,088	26,300	23,190
Linked business	163,571	17,609	27,632	55,519	62,811
General insurance and health	16,794	6,877	6,838	2,462	617
Total contract liabilities	362,213	39,961	78,836	126,001	117,415

(ii) Analysis of maturity of financial assets

The following table provides an analysis, by maturity date of the principal, of the carrying value of financial assets which are available to fund the repayment of liabilities as they crystallise. This table excludes assets held for sale.

As at 31 December 2018	Total £m	On demand or within 1 year £m	1-5 years £m	Over 5 years £m	No fixed term (perpetual) £m
Debt securities	169,289	31,282	43,876	92,985	1,146
Equity securities	82,128	—	—	—	82,128
Other investments	46,168	41,027	77	4,301	763
Loans	28,785	2,089	4,236	22,457	3
Cash and cash equivalents	46,484	46,484	—	—	—
	372,854	120,882	48,189	119,743	84,040

As at 31 December 2017	Total £m	On demand or within 1 year £m	1-5 years £m	Over 5 years £m	No fixed term (perpetual) £m
Debt securities	174,808	28,037	47,289	99,078	404
Equity securities	89,968	—	—	—	89,968
Other investments	46,306	40,500	364	4,680	762
Loans	27,857	1,651	5,053	21,149	4
Cash and cash equivalents	43,347	43,347	—	—	—
	382,286	113,535	52,706	124,907	91,138

59 – Risk management continued

The assets above are analysed in accordance with the earliest possible redemption date of the instrument at the initiation of the Group. Where an instrument is transferable back to the issuer on demand, such as most unit trusts or similar types of investment vehicle, it is included in the 'On demand or within 1 year' column. Debt securities with no fixed contractual maturity date are generally callable at the option of the issuer at the date the coupon rate is reset under the contractual terms of the instrument. The terms for resetting the coupon are such that we expect the securities to be redeemed at this date, as it would be uneconomic for the issuer not to do so, and for liquidity management purposes we manage these securities on this basis. The first repricing and call date is normally ten years or more after the date of issuance. Most of the Group's investments in equity securities and fixed maturity securities are market traded and therefore, if required, can be liquidated for cash at short notice.

(e) Life and health insurance risk

Life insurance risk in the Group arises through its exposure to mortality risk and exposure to worse than anticipated operating experience on factors such as persistency levels, exercising of policyholder options and management and administration expenses. The Group's health insurance business (including private health insurance, critical illness cover, income protection and personal accident insurance, as well as a range of corporate healthcare products) exposes the Group to morbidity risk (the proportion of our customers falling sick) and medical expense inflation. The Group chooses to take measured amounts of life and health insurance risk provided that the relevant business has the appropriate core skills to assess and price the risk and adequate returns are available. The Group's underwriting strategy and appetite is communicated via specific policy statements, related business standards and guidelines. Life insurance risk is managed primarily at business unit level with oversight at the Group level.

The underlying risk profile of our life and health insurance risks, primarily persistency, longevity, mortality and expense risk, has remained stable during 2018, although the current continued relatively low levels of interest rates have increased our sensitivity to longevity shocks compared to historical norms. We are also exposed to longevity risk through the Aviva Staff Pension Scheme, to which our economic exposure has been reduced since 2014 by entering into a longevity swap covering approximately £5 billion of pensioner in payment scheme liabilities. Longevity risk remains the Group's most significant life insurance risk, while persistency risk remains significant and continues to have a volatile outlook with underlying performance linked to some degree to economic conditions. However, businesses across the Group have continued to make progress with a range of customer retention activities. The Group has continued to write considerable volumes of life protection business, and to utilise reinsurance to reduce exposure to potential losses. More generally, life insurance risks are believed to provide a significant diversification against other risks in the portfolio. Life insurance risks are modelled within the internal capital model and subject to sensitivity and stress and scenario testing. Our UK Life business is in the process of implementing a new actuarial modelling system for non-profit business. During the year ended 31 December 2018, annuities and certain protection products were transferred into the new modelling system which had minimal financial impact.

The assumption and management of life and health insurance risks is governed by the Group-wide business standards covering underwriting, pricing, product design and management, in-force management, claims handling, and reinsurance. The individual life and health insurance risks are managed as follows:

- Mortality and morbidity risks are mitigated by use of reinsurance. The Group allows businesses to select reinsurers, from those approved by the Group, based on local factors, but retains oversight of the overall exposures and monitors that the aggregation of risk ceded is within credit risk appetite.
- Longevity risk and internal experience analysis are monitored against the latest external industry data and emerging trends. Whilst individual businesses are responsible for reserving and pricing for annuity business, the Group monitors the exposure to this risk and any associated capital implications. The Group has used reinsurance solutions to reduce the risks from longevity and continually monitors and evaluates emerging market solutions to mitigate this risk further.
- Persistency risk is managed at a business unit level through frequent monitoring of company experience, and benchmarked against local market information. Generally, persistency risk arises from customers lapsing their policies earlier than has been assumed. Where possible the financial impact of lapses is reduced through appropriate product design. Businesses also implement specific initiatives to improve the retention of policies which may otherwise lapse. The Group has developed guidelines on persistency management.
- Expense risk is primarily managed by the business units through the assessment of business unit profitability and frequent monitoring of expense levels.

Embedded derivatives

The Group is exposed to the risk of changes in policyholder behaviour due to the exercise of options, guarantees and other product features embedded in its long-term savings products. These product features offer policyholders varying degrees of guaranteed benefits at maturity or on early surrender, along with options to convert their benefits into different products on pre-agreed terms. The extent of the impact of these embedded derivatives differs considerably between business units and exposes Aviva to changes in policyholder behaviour in the exercise of options as well as market risk.

Examples of each type of embedded derivative affecting the Group are:

- Options: call, put, surrender and maturity options, guaranteed annuity options, options to cease premium payment, options for withdrawals free of market value adjustment, annuity options, and guaranteed insurability options.
- Guarantees: embedded floor (guaranteed return), maturity guarantee, guaranteed death benefit, and guaranteed minimum rate of annuity payment.
- Other: indexed interest or principal payments, maturity value, loyalty bonus.

The impact of these is reflected in the capital model and managed as part of the asset liability framework. Further disclosure on financial guarantees and options embedded in contracts and their inclusion in insurance and investment contract liabilities is provided in note 45.

59 – Risk management continued

(f) General insurance risk

Types of risk

General insurance risk in the Group arises from:

- Fluctuations in the timing, frequency and severity of claims and claim settlements relative to expectations;
- Unexpected claims arising from a single source or cause;
- Inaccurate pricing of risks or inappropriate underwriting of risks when underwritten; and
- Inadequate reinsurance protection or other risk transfer techniques.

Aviva has a preference for general insurance risk in measured amounts for explicit reward, in line with our core skills in underwriting and pricing. The majority of the general insurance business underwritten by the Group continues to be short tail in nature such as motor, household and commercial property insurances. The Group's underwriting strategy and appetite is communicated via specific policy statements, related business standards and guidelines. General insurance risk is managed primarily at business unit level with oversight at the Group level. Claims reserving is undertaken by local actuaries in the various general insurance businesses and is also subject to periodic external reviews. Reserving processes are further detailed in note 42 Insurance liabilities.

The vast majority of the Group's general insurance business is managed and priced in the same country as the domicile of the customer.

Management of general insurance risks

Significant insurance risks will be reported under the risk management framework. Additionally, the capital model is used to assess the risks that each general insurance business unit, and the Group as a whole, is exposed to, quantifying their impact and calculating appropriate capital requirements.

Business units have developed mechanisms that identify, quantify and manage accumulated exposures to contain them within the limits of the appetite of the Group. The business units are assisted by the General Insurance Council which provides technical input for major decisions which fall outside individual delegated limits or escalations outside group risk preferences, group risk accumulation, concentration and profitability limits.

Reinsurance strategy

Significant reinsurance purchases are reviewed annually at both business unit and Group level to verify that the levels of protection being bought reflect any developments in exposure and the risk appetite of the Group. The basis of these purchases is underpinned by analysis of capital, earnings and capital volatility, cash flow and liquidity and the Group's franchise value.

Detailed actuarial analysis is used to calculate the Group's extreme risk profile and then design cost and capital efficient reinsurance programmes to mitigate these risks to within agreed appetites. For businesses writing general insurance we analyse the natural catastrophe exposure using our own internal probabilistic catastrophe model which is benchmarked against external catastrophe models widely used by the rest of the (re)insurance industry.

The Group cedes much of its worldwide catastrophe risk to third-party reinsurers through excess of loss and aggregate excess of loss structures. The Group purchases a Group-wide catastrophe reinsurance programme to protect against catastrophe losses exceeding a 1 in 200 year return period. The total Group potential retained loss from its most concentrated catastrophe exposure peril (Northern Europe Windstorm) is approximately £150 million on a per occurrence basis and £175 million on an annual aggregate basis. Any losses above these levels are covered by the group-wide catastrophe reinsurance programme to a level in excess of a 1 in 200 year return period. In addition the Group purchases a number of GI business line specific reinsurance programmes with various retention levels to protect both capital and earnings, and has reinsured 100% of its latent exposures to its historic UK employers' liability and public liability business written prior to 31 December 2000.

(g) Asset management risk

Aviva is directly exposed to the risks associated with operating an asset management business through its ownership of Aviva Investors. The underlying risk profile of our asset management risk is derived from investment performance, specialist investment professionals and leadership, product development capabilities, fund liquidity, margin, client retention, regulatory developments, fiduciary and contractual responsibilities. Funds invested in illiquid assets such as commercial property are particularly exposed to liquidity risk. The risk profile is regularly monitored.

A client relationship team is in place to manage client retention risk, while all new asset management products undergo a review and approval process at each stage of the product development process, including approvals from legal, compliance and risk functions. Investment performance against client objectives relative to agreed benchmarks is monitored as part of our investment performance and risk management process, and subject to further independent oversight and challenge by a specialist risk team, reporting directly to the Aviva Investors' Chief Risk Officer.

(h) Operational risk

Operational risk is the risk of direct or indirect loss, arising from inadequate or failed internal processes, people and systems, or external events including changes in the regulatory environment. We have limited appetite for operational risk and aim to reduce these risks as far as is commercially sensible.

Our business units are primarily responsible for identifying and managing operational risks within their businesses, within the Group-wide operational risk framework including the risk and control self-assessment process. Businesses must be satisfied that all material risks falling outside our risk tolerances are being mitigated, monitored and reported to an appropriate level. Any risks with a high potential impact are monitored centrally on a regular basis. Businesses use key indicator data to help monitor the status of the risk and control environment. They also identify and capture loss events, taking appropriate action to address actual control breakdowns and promote internal learning.

59 – Risk management continued

The increasing importance to our strategy of digital interaction with our customers and advanced data analytics, the conduct, data protection and financial crime agenda of the European institutions, the FCA and other regulators, as well as the increasing cyber security threat, as evidenced by continuing instances of high profile cyber security breaches for other corporates in the UK and elsewhere, mean that the Group's inherent risk exposure to risks such as data theft, conduct regulatory breaches (including financial crime) and customer service interruption due to IT systems failure increased in 2018 and is expected to continue to increase into the future. The risk of customer service interruption is increased by the age and complexity of the Group's IT infrastructure, which at times during the first half of 2018 resulted in disruption to continuous service to our customers, while our UK long-term savings business also experienced some functionality issues during its update of its platform capability. During 2018 we have continued to take action to reduce our residual exposure to these risks and improve our operational resilience through our conduct risk management framework, financial crime risk mitigation programme and significant investment in upgrading our IT infrastructure (including migrations to a new data centre infrastructure provider and to the Cloud) and IT Security Transformation programme, and by ensuring appropriate consideration of IT infrastructure and security risks in developing our digital strategy, and will continue to do so into the future.

(i) Brand and reputation risk

We are exposed to the risk that litigation, employee misconduct, operational failures, the outcome of regulatory investigations, media speculation and negative publicity, disclosure of confidential client information, inadequate services, whether or not founded, could impact our brands or reputation. Any of our brands or our reputation could also be affected if products or services recommended by us (or any of our intermediaries) do not perform as expected (whether or not the expectations are founded) or customers' expectations for the product change. We seek to reduce this risk to as low a level as commercially sensible.

The FCA regularly considers whether we are meeting the requirement to treat our customers fairly and we make use of various metrics to assess our own performance, including customer advocacy, retention and complaints. Failure to meet these requirements could also impact our brands or reputation.

If we do not manage the perception of our brands and reputation successfully, it could cause existing customers or agents to withdraw from our business and potential customers or agents to choose not to do business with us.

(j) Risk and capital management

(i) Sensitivity test analysis

The Group uses a number of sensitivity tests to understand the volatility of earnings, the volatility of its capital requirements, and to manage its capital more efficiently. Sensitivities to economic and operating experience are regularly produced on the Group's key financial performance metrics to inform the Group's decision making and planning processes, and as part of the framework for identifying and quantifying the risks to which each of its business units, and the Group as a whole, are exposed.

(ii) Life insurance and investment contracts

The nature of long-term business is such that a number of assumptions are made in compiling these financial statements. Assumptions are made about investment returns, expenses, mortality rates and persistency in connection with the in-force policies for each business unit. Assumptions are best estimates based on historic and expected experience of the business. A number of the key assumptions for the Group's central scenario are disclosed elsewhere in these statements.

(iii) General insurance and health business

General insurance and health claim liabilities are estimated by using standard actuarial claims projection techniques. These methods extrapolate the claims development for each accident year based on the observed development of earlier years. In most cases, no explicit assumptions are made as projections are based on assumptions implicit in the historic claims.

(iv) Sensitivity test results

Illustrative results of sensitivity testing for long-term business, general insurance and health business and the fund management and non-insurance business are set out below. For each sensitivity test the impact of a reasonably possible change in a single factor is shown, with other assumptions left unchanged.

Sensitivity factor	Description of sensitivity factor applied
Interest rate and investment return	The impact of a change in market interest rates by a 1% increase or decrease. The test allows consistently for similar changes to investment returns and movements in the market value of backing fixed interest securities.
Credit spreads	The impact of a 0.5% increase in credit spreads over risk-free interest rates on corporate bonds and other non-sovereign credit assets. The test allows for any consequential impact on liability valuations.
Equity/property market values	The impact of a change in equity/property market values by $\pm 10\%$.
Expenses	The impact of an increase in maintenance expenses by 10%.
Assurance mortality/morbidity (life insurance only)	The impact of an increase in mortality/morbidity rates for assurance contracts by 5%.
Annuitant mortality (long-term insurance only)	The impact of a reduction in mortality rates for annuity contracts by 5%.
Gross loss ratios (non-long-term insurance only)	The impact of an increase in gross loss ratios for general insurance and health business by 5%.

59 – Risk management continued**Long-term business****Sensitivities as at 31 December 2018**

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
31 December 2018 Impact on profit before tax £m								
Insurance participating	(75)	35	(15)	(105)	70	(20)	(5)	(5)
Insurance non-participating	(975)	1,130	(695)	(125)	105	(210)	(115)	(865)
Investment participating	(40)	40	(10)	(15)	(15)	(15)	—	—
Investment non-participating	—	—	—	10	(25)	(20)	—	—
Assets backing life shareholders' funds	(95)	105	(25)	20	(20)	—	—	—
Total	(1,185)	1,310	(745)	(215)	115	(265)	(120)	(870)

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
31 December 2018 Impact on shareholders' equity before tax £m								
Insurance participating	(75)	35	(15)	(105)	70	(20)	(5)	(5)
Insurance non-participating	(975)	1,130	(695)	(125)	105	(210)	(115)	(865)
Investment participating	(40)	40	(10)	(15)	(15)	(15)	—	—
Investment non-participating	—	—	—	10	(25)	(20)	—	—
Assets backing life shareholders' funds	(145)	150	(25)	25	(25)	—	—	—
Total	(1,235)	1,355	(745)	(210)	110	(265)	(120)	(870)

Sensitivities as at 31 December 2017

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
31 December 2017 Impact on profit before tax £m								
Insurance participating	(45)	25	(15)	(20)	(40)	(25)	(5)	(10)
Insurance non-participating	(475)	485	(790)	(135)	115	(215)	(105)	(905)
Investment participating	—	10	(5)	(5)	—	(15)	—	—
Investment non-participating	—	(10)	(5)	10	(10)	(30)	—	—
Assets backing life shareholders' funds	(90)	115	(25)	20	(20)	—	—	—
Total	(610)	625	(840)	(130)	45	(285)	(110)	(915)

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Assurance mortality +5%	Annuitant mortality -5%
31 December 2017 Impact on shareholders' equity before tax £m								
Insurance participating	(45)	25	(15)	(20)	(40)	(25)	(5)	(10)
Insurance non-participating	(475)	485	(790)	(135)	115	(215)	(105)	(905)
Investment participating	—	10	(5)	(5)	—	(15)	—	—
Investment non-participating	—	(10)	(5)	10	(10)	(30)	—	—
Assets backing life shareholders' funds	(150)	175	(35)	20	(20)	—	—	—
Total	(670)	685	(850)	(130)	45	(285)	(110)	(915)

Changes in sensitivities between 2018 and 2017 reflect underlying movements in the value of assets and liabilities, the relative duration of assets and liabilities and asset liability management actions. The sensitivities to economic and demographic movements relate mainly to business in the UK. Our sensitivity to interest rates has increased over the period mainly due to the impacts of our hedging programme which protects Solvency II capital and increased exposure in the UK, predominantly as a result of surplus assets originated in 2018 to back new business in 2019 that would otherwise be invested in cash.

59 – Risk management continued

General insurance and health business sensitivities as at 31 December 2018

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Gross loss ratios +5%
31 December 2018 Impact on profit before tax £m							
Gross of reinsurance	(240)	235	(115)	165	(165)	(120)	(325)
Net of reinsurance	(305)	295	(115)	165	(165)	(120)	(315)

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Gross loss ratios +5%
31 December 2018 Impact on shareholders' equity before tax £m							
Gross of reinsurance	(240)	235	(115)	170	(170)	(25)	(325)
Net of reinsurance	(305)	295	(115)	170	(170)	(25)	(315)

Sensitivities as at 31 December 2017

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Gross loss ratios +5%
31 December 2017 Impact on profit before tax £m							
Gross of reinsurance	(285)	300	(130)	165	(165)	(120)	(335)
Net of reinsurance	(345)	355	(130)	165	(165)	(120)	(325)

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%	Expenses +10%	Gross loss ratios +5%
31 December 2017 Impact on shareholders' equity before tax £m							
Gross of reinsurance	(285)	300	(130)	165	(165)	(25)	(335)
Net of reinsurance	(345)	355	(130)	165	(165)	(25)	(325)

For general insurance and health, the impact of the expense sensitivity on profit also includes the increase in ongoing administration expenses, in addition to the increase in the claims handling expense provision.

Fund management and non-insurance business sensitivities as at 31 December 2018

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%
31 December 2018 Impact on profit before tax £m					
Total	(25)	20	30	(20)	35

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%
31 December 2018 Impact on shareholders' equity before tax £m					
Total	(20)	15	30	(20)	30

Sensitivities as at 31 December 2017

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%
31 December 2017 Impact on profit before tax £m					
Total	(30)	30	80	(10)	20

	Interest rates +1%	Interest rates -1%	Credit spreads +0.5%	Equity/ property +10%	Equity/ property -10%
31 December 2017 Impact on shareholders' equity before tax £m					
Total	(25)	25	80	(10)	15

Limitations of sensitivity analysis

The above tables demonstrate the effect of a change in a key assumption while other assumptions remain unchanged. In reality, there is a correlation between the assumptions and other factors. It should also be noted that these sensitivities are non-linear, and larger or smaller impacts should not be interpolated or extrapolated from these results.

The sensitivity analyses do not take into consideration that the Group's assets and liabilities are actively managed. Additionally, the financial position of the Group may vary at the time that any actual market movement occurs. For example, the Group's financial risk management strategy aims to manage the exposure to market fluctuations.

As investment markets move past various trigger levels, management actions could include selling investments, changing investment portfolio allocation, adjusting bonuses credited to policyholders, and taking other protective action.

A number of the business units use passive assumptions to calculate their long-term business liabilities. Consequently, a change in the underlying assumptions may not have any impact on the liabilities, whereas assets held at market value in the statement of financial position will be affected. In these circumstances, the different measurement bases for liabilities and assets may lead to volatility in shareholder equity. Similarly, for general insurance liabilities, the interest rate sensitivities only affect profit and equity where explicit assumptions are made regarding interest (discount) rates or future inflation.

Other limitations in the above sensitivity analyses include the use of hypothetical market movements to demonstrate potential risk that only represent the Group's view of possible near-term market changes that cannot be predicted with any certainty, and the assumption that all interest rates move in an identical fashion.

60 – Derivative financial instruments and hedging

This note gives details of the various financial instruments the Group uses to mitigate risk.

The Group uses a variety of derivative financial instruments, including both exchange traded and over-the-counter instruments, in line with the Group's overall risk management strategy. The objectives include managing exposure to market, foreign currency and/or interest rate risk on existing assets or liabilities, as well as planned or anticipated investment purchases.

In the narrative and tables below, figures are given for both the notional amounts and fair values of these instruments. The notional amounts reflect the aggregate of individual derivative positions on a gross basis and so give an indication of the overall scale of the derivative transaction. They do not reflect current market values of the open positions. The fair values represent the gross carrying values at the year end for each class of derivative contract held (or issued) by the Group.

The fair values do not provide an indication of credit risk, as many over-the-counter transactions are contracted and documented under ISDA (International Swaps and Derivatives Association, Inc.) master agreements or their equivalent. Such agreements are designed to provide a legally enforceable set-off in the event of default, which reduces credit exposure. In addition, the Group has collateral agreements in place between the individual Group entities and relevant counterparties. Refer to note 61 for further information on collateral and net credit risk of derivative instruments.

(a) Instruments qualifying for hedge accounting

The Group has formally assessed and documented the hedge effectiveness in accordance with IAS 39, *Financial Instruments: Recognition and Measurement*.

Net investment hedges

To reduce its exposure to foreign currency risk, the Group has designated a portion of its euro denominated debt as hedge instruments to hedge a net investment in its European subsidiaries. No material disposals are expected prior to the maturity of the euro denominated debt and the hedge effectiveness is prospectively expected to remain between 80% and 125%. The carrying value of the debt at 31 December 2018 was £2,468 million (2017: £2,885 million) and its fair value at that date was £2,515 million (2017: £3,202 million).

Foreign exchange losses of £27 million (2017: loss of £98 million) on translation of the debt to sterling at the statement of financial position date in respect of the effective portion have been recognised in the hedging instruments reserve in shareholders' equity. A gain of £4 million (2017: loss of £13 million) has been recognised in the income statement due to the termination of a net investment hedge.

60 – Derivative financial instruments and hedging continued

(b) Derivatives not qualifying for hedge accounting

Certain derivatives either do not qualify for hedge accounting under IAS 39 or the option to designate them as hedge instruments has not been taken. These are referred to below as non-hedge derivatives.

(i) The Group's non-hedge derivatives at 31 December 2018 and 2017 were as follows:

	2018			2017		
	Contract/ notional amount £m	Fair value asset £m	Fair value liability £m	Contract/ notional amount £m	Fair value asset £m	Fair value liability £m
Foreign exchange contracts						
OTC						
Forwards	17,529	73	(117)	10,281	87	(34)
Interest rate and currency swaps	7,908	29	(708)	7,336	176	(568)
Options	174	9	—	—	—	—
Total	25,611	111	(825)	17,617	263	(602)
Interest rate contracts						
OTC						
Forwards	283	11	—	280	4	(2)
Swaps	50,316	3,651	(2,120)	52,464	4,370	(2,539)
Options	203	1	(20)	178	15	(11)
Swaptions	358	126	(5)	1,220	143	(7)
Exchange traded						
Futures	5,297	53	(34)	4,577	11	(17)
Total	56,457	3,842	(2,179)	58,719	4,543	(2,576)
Equity/Index contracts						
OTC						
Options	132	58	(1)	593	29	(2)
Exchange traded						
Futures	10,888	185	(197)	16,279	254	(249)
Options	3,156	441	(13)	2,560	175	(5)
Total	14,176	684	(211)	19,432	458	(256)
Credit contracts	10,756	12	(227)	9,920	15	(261)
Other	14,327	345	(2,129)	15,395	228	(2,071)
Total at 31 December	121,327	4,994	(5,571)	121,083	5,507	(5,766)

Fair value assets of £4,994 million (2017: £5,507 million) are recognised as 'Derivative financial instruments' in note 27(a), while fair value liabilities of £5,571 million (2017: £5,766 million) are recognised as 'Derivative liabilities' in note 53.

The Group's derivative risk management policies are outlined in note 59.

(ii) The contractual undiscounted cash flows in relation to non-hedge derivative liabilities have the following maturities:

	2018 £m	2017 £m
Within 1 year	1,224	1,071
Between 1 and 2 years	512	597
Between 2 and 3 years	445	503
Between 3 and 4 years	384	404
Between 4 and 5 years	301	328
After 5 years	3,359	3,461
	6,225	6,364

(c) Collateral

Certain derivative contracts, primarily interest rate and currency swaps, involve the receipt or pledging of cash and non-cash collateral. The amounts of cash collateral receivable or repayable are included in notes 28 and 53 respectively. Collateral received and pledged by the Group is detailed in note 61.

61 – Financial assets and liabilities subject to offsetting, enforceable master netting agreements and similar arrangements

(a) Offsetting arrangements

Financial assets and liabilities are offset in the statement of financial position when the Group has a legally enforceable right to offset and has the intention to settle the asset and liability on a net basis, or to realise the asset and settle the liability simultaneously.

Aviva mitigates credit risk in derivative contracts by entering into collateral agreements, where practical, and into ISDA master netting agreements for each of the legal entities to facilitate its right to offset credit risk exposure. The credit support agreement will normally dictate the threshold over which collateral needs to be pledged by Aviva or its counterparty.

Derivative transactions requiring Aviva or its counterparty to post collateral are typically the result of over-the-counter derivative trades, comprised mostly of interest rate swaps, currency swaps and credit default swaps. These transactions are conducted under terms that are usual and customary to standard long-term borrowing, derivative, securities lending and securities borrowing activities. The derivative assets and liabilities in the table below are made up of the contracts described in detail in note 60.

Aviva participates in a number of stock lending and repurchase arrangements. In some of these arrangements cash is exchanged by Aviva for securities and a related receivable is recognised within 'Loans to banks' in note 24. These arrangements are reflected in the tables below. In instances where the collateral is recognised on the statement of financial position, the obligation for its return is included within 'Payables and other financial liabilities' in note 53.

In other arrangements, securities are exchanged for other securities. The collateral received must be in a readily realisable form such as listed securities and is held in segregated accounts. Transfer of title always occurs for the collateral received. In many instances, however, no market risk or economic benefit is exchanged and these transactions are not recognised on the statement of financial position in accordance with our accounting policies, and accordingly not included in the tables below.

	Amounts subject to enforceable netting arrangements						
	Offset under IAS 32			Amounts under a master netting agreement but not offset under IAS 32			
	Gross amounts £m	Amounts offset £m	Net amounts reported in the statement of financial position £m	Financial instruments £m	Cash collateral £m	Securities collateral received/ pledged £m	Net amount £m
2018							
Financial assets							
Derivative financial assets	3,978	—	3,978	(2,831)	(657)	(186)	304
Loans to banks and repurchase arrangements	1,923	—	1,923	—	(300)	(1,614)	9
Total financial assets	5,901	—	5,901	(2,831)	(957)	(1,800)	313
Financial liabilities							
Derivative financial liabilities	(4,701)	—	(4,701)	2,896	7	1,288	(510)
Other financial liabilities	(3,314)	—	(3,314)	—	—	3,314	—
Total financial liabilities	(8,015)	—	(8,015)	2,896	7	4,602	(510)

61 – Financial assets and liabilities subject to offsetting, enforceable master netting arrangements and similar agreements continued

	Amounts subject to enforceable netting arrangements						
	Offset under IAS 32			Amounts under a master netting agreement but not offset under IAS 32			
	Gross amounts £m	Amounts offset £m	Net amounts reported in the statement of financial position £m	Financial instruments £m	Cash collateral £m	Securities collateral received/ pledged £m	Net amount £m
2017							
Financial assets							
Derivative financial assets	4,605	—	4,605	(3,162)	(830)	(291)	322
Loans to banks and repurchase arrangements	2,524	—	2,524	—	—	(2,502)	22
Total financial assets	7,129	—	7,129	(3,162)	(830)	(2,793)	344
Financial liabilities							
Derivative financial liabilities	(4,790)	—	(4,790)	3,233	17	1,120	(420)
Other financial liabilities	(2,961)	—	(2,961)	—	—	2,961	—
Total financial liabilities	(7,751)	—	(7,751)	3,233	17	4,081	(420)

Derivative assets are recognised as 'Derivative financial instruments' in note 27(a), while fair value liabilities are recognised as 'Derivative liabilities' in note 53. £1,016 million (2017: £902 million) of derivative assets and £870 million (2017: £976 million) of derivative liabilities are not subject to master netting agreements and are therefore excluded from the table above.

Amounts receivable related to securities lending and reverse-repurchase arrangements totalling £1,923 million (2017: £2,524 million) are recognised within 'Loans to banks' in note 24.

Other financial liabilities presented above represent liabilities related to repurchase arrangements recognised within 'Obligations for repayment of cash collateral received' in note 53.

(b) Collateral

In the tables above, the amounts of assets or liabilities presented in the consolidated statement of financial position are offset first by financial instruments that have the right of offset under master netting or similar arrangements with any remaining amount reduced by the amount of cash and securities collateral. The actual amount of collateral may be greater than amounts presented in the tables above in the case of over collateralisation.

The total amount of collateral received which the Group is permitted to sell or repledge in the absence of default, excluding collateral related to balances recognised within 'Loans to banks' disclosed in note 24, was £19,504 million (2017: £22,978 million), all of which other than £4,058 million (2017: £4,780 million) is related to securities lending arrangements. Collateral of £1,914 million (2017: £2,697 million) has been received related to balances recognised within 'Loans to banks' in note 24. The value of collateral that was actually sold or repledged in the absence of default was £nil (2017: £nil).

The level of collateral held is monitored regularly, with further collateral obtained where this is considered necessary to manage the Group's risk exposure.

62 – Related party transactions

This note gives details of the transactions between Group companies and related parties which comprise our joint ventures, associates and staff pension schemes.

The Group undertakes transactions with related parties in the normal course of business. Loans to related parties are made on normal arm's-length commercial terms.

Services provided to, and by related parties

	2018				2017			
	Income earned in the year £m	Expenses incurred in the year £m	Payable at year end £m	Receivable at year end £m	Income earned in the year £m	Expenses incurred in the year £m	Payable at year end £m	Receivable at year end £m
Associates	1	—	—	2	4	(4)	—	—
Joint ventures	49	—	(1)	2	49	—	—	2
Employee pension schemes	10	—	—	7	12	—	—	14
	60	—	(1)	11	65	(4)	—	16

Transactions with joint ventures in the UK relate to the property management undertakings, the most material of which are listed in note 19(a)(iii). The Group has equity interests in these joint ventures, together with the provision of administration services and financial management to many of them. Our fund management companies also charge fees to these joint ventures for administration services and for arranging external finance.

Key management personnel of the Company may from time to time purchase insurance, savings, asset management or annuity products marketed by group companies on equivalent terms to those available to all employees of the Group. In 2018, other transactions with key management personnel were not deemed to be significant either by size or in the context of their individual financial positions.

Our UK fund management companies manage most of the assets held by the Group's main UK staff pension scheme, for which they charge fees based on the level of funds under management. The main UK scheme holds investments in Group-managed funds and insurance policies with other group companies, as explained in note 51(b)(ii). As at 31 December 2018, the Friends Provident Pension Scheme ('FPPS'), acquired in 2015 as part of the acquisition of the Friends Life business, held an insurance policy of £620 million (2017: £630 million) issued by a group company, which eliminates on consolidation.

The related parties' receivables are not secured and no guarantees were received in respect thereof. The receivables will be settled in accordance with normal credit terms.

Key management compensation

The total compensation to those employees classified as key management, being those having authority and responsibility for planning, directing and controlling the activities of the Group, including the executive and non-executive directors is as follows:

	2018 £m	2017 £m
Salary and other short-term benefits	7.9	12.5
Other long-term benefits	8.6	5.4
Post-employment benefits	1.5	1.5
Equity compensation plans	10.5	16.4
Termination benefits	—	0.4
Total	28.5	36.2

Information concerning individual directors' emoluments, interests and transactions is given in the Directors' Remuneration Report.

63 – Organisational structure

The following chart shows, in simplified form, the organisational structure of the Group as at 31 December 2018. Aviva plc is the holding company of the Group.

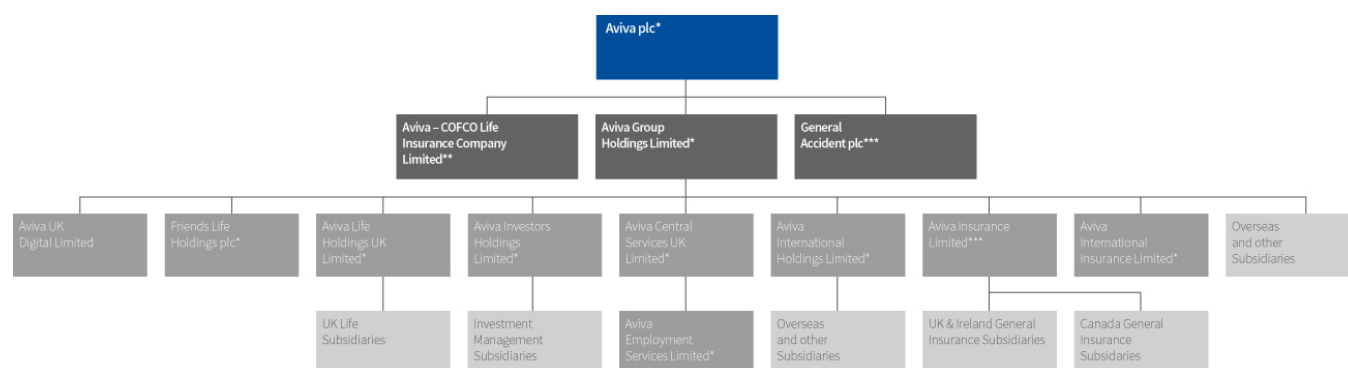
Parent company

Aviva plc

Subsidiaries

The principal subsidiaries of the Company at 31 December 2018 are listed below by country of incorporation.

A complete list of the Group's related undertakings comprising of subsidiaries, joint ventures, associates and other significant holdings is contained within note 64.



* Incorporated in England and Wales

** Incorporated in People's Republic of China.

*** Incorporated in Scotland

United Kingdom

Aviva Central Services UK Limited
 Aviva Employment Services Limited
 Aviva Equity Release UK Limited
 Aviva Health UK Limited
 Aviva Insurance Limited
 Aviva International Insurance Limited
 Aviva Investors Global Services Limited
 Aviva Investors Pensions Limited
 Aviva Investors UK Fund Services Limited
 Aviva Life & Pensions UK Limited
 Aviva Life Services UK Limited
 Aviva Pension Trustees UK Limited
 Aviva UK Digital Limited
 Aviva Wrap UK Limited
 Gresham Insurance Company Limited
 The Ocean Marine Insurance Company Limited
 Aviva Management Services UK Limited
 Aviva Administration Limited
 Friends Provident International Limited¹

Barbados

Victoria Reinsurance Company Ltd

Bermuda

Aviva Re Limited

Canada

Aviva Canada Inc. and its principal subsidiaries:

Aviva Insurance Company of Canada
 Aviva General Insurance Company
 Elite Insurance Company
 Pilot Insurance Company
 Scottish & York Insurance Co. Limited
 S&Y Insurance Company
 Traders General Insurance Company

France

Aviva France SA (99.99%) and its principal subsidiaries:

Aviva Assurances SA (99.9%)
 Aviva Investors France SA (99.9%)
 Aviva Vie SA (99.9%)
 Aviva Epargne Retraite (99.9%)
 Aviva Retraite Professionnelle SA (99.9%)
 Union Financière de France Banque (Banking) (75%)

Ireland

Friends First Life Assurance Company DAC (Friends First)

¹ See note 4(c) for further details in respect of operations classified as held for sale

63 – Organisational structure continued

Italy

Aviva Italia Holding S.p.A and its principal subsidiaries:

- Aviva S.p.A (51%)
- Aviva Italia S.p.A
- Aviva Life S.p.A
- Aviva Vita S.p.A (80%)

Lithuania

Uždaroji akcinė gyvybės draudimo ir pensijų bendrovė 'Aviva Lietuva' (90%)

Poland

Aviva Powszechne Towarzystwo Emerytalne Aviva Santander S.A. (81%)

Aviva Towarzystwo Ubezpieczeń na Życie S.A. (90%)

Aviva Towarzystwo Ubezpieczeń Ogólnych S.A. (90%)

Santander Aviva Towarzystwo Ubezpieczeń S.A. (51%)

Santander Aviva Towarzystwo Ubezpieczeń na Życie S.A. (51%)

Singapore

Aviva Ltd

Vietnam

Aviva Vietnam Life Insurance Company Limited

Branches

The Group also operates through branches, the most significant of which is based in Ireland.

Associates and joint ventures

The Group has ongoing interests in the following operations that are classified as joint ventures or associates. Further details of those operations that were most significant in 2018 are set out in notes 19 and 20 to the financial statements.

United Kingdom

The Group has interests in several property limited partnerships. Further details are provided in notes 19, 20 and 26 to the financial statements.

China

Aviva-COFCO Life Insurance Company Ltd (50%)

Hong Kong

Aviva Life Insurance Company Limited (40%)

India

Aviva Life Insurance Company India Limited (49%)

Indonesia

PT Astra Aviva Life (50%)

Turkey

AvivaSA Emeklilik ve Hayat A.S (40%)

64 – Related Undertakings

The Companies Act 2006 requires disclosure of certain information about the Group's related undertakings which is set out in this note. Related undertakings comprise subsidiaries, joint ventures, associates and other significant holdings. Significant holdings are where the Group either has a shareholding greater than or equal to 20% of the nominal value of any share class, or a book value greater than 20% of the Group's assets.

The definition of a subsidiary undertaking in accordance with the Companies Act 2006 is different from the definition under IFRS. As a result, the related undertakings included within the list below may not be the same as the undertakings consolidated in the Group IFRS financial statements. See accounting policies (D) Consolidation principles for further detail on principles of consolidation and definition of joint ventures.

The Group's related undertakings along with the country of incorporation, the registered address, the classes of shares held and the effective percentage of equity owned at 31 December 2018 are disclosed below.

The direct related undertakings of the Company as at 31 December 2018 are listed below:

Name of undertaking	Country of incorporation	Registered address	Share class ¹	% held
Aviva-COFCO Life Insurance Company Ltd ²	China	12/F,Block A, Landgent Centre, 20 East Third Ring Middle Road, Beijing, 100022	Ordinary shares	50
General Accident plc	United Kingdom	Pitheavlis, Perth, Perthshire, PH2 0NH	Ordinary shares	100
Aviva Group Holdings Limited	United Kingdom	St Helen's, 1 Undershaft, London, EC3P 3DQ	Ordinary shares	100

The indirect related undertakings of the Company as at 31 December 2018 are listed below:

Company name	Share Class ¹	% held	Company name	Share Class ¹	% held
Barbados			China		
c/o USA Risk Group (Barbados) Ltd., 6th Floor, CGI Tower, Warrens, St. Michael, BB22026			Units 1805-1807, 18th Floor, Block H Office Building, Phoenix Land Plaza, No. A5 Yard, Shuguangxili, Chaoyang District, Beijing		
Victoria Reinsurance Company Ltd.	Common Shares	100	Aviva-Cofco Yi Li Asset Management Co Ltd ²	Ordinary Shares	21
Belgium			Czech Republic		
Avenue Louise 326, Boîte 30, 1050 Ixelles			5/482, Ve Svahu, Prague 4, 14700		
Parnasse Square Invest	Ordinary Shares	99	AIREF Renewable Energy s.r.o.	Ordinary Shares	99
Bermuda			France		
Canon's Court, 22 Victoria Street, Hamilton, HM 12			3 Boulevard Saint Martin		
Aviva Re Limited	Ordinary Shares	100	Aviva Impact Investing France	Ordinary Shares	100
Trinity Hall, 43 Cedar Avenue, Hamilton HM 12			128 Boulevard Raspail, 75006, Paris		
Lend Lease JEM Partners Fund Limited	Ordinary Shares	23	UFF Oblcontext 2021-A (UFFo21A)	FCP	98
Canada			UFF Oblcontext 2023 A (UFFo23A)	FCP	98
10 Aviva Way, Suite 100, Markham On L6G 0G1			UFF Obligations 3-5 A	FCP	88
9543864 Canada Inc.	Common Shares	100	13 Rue du Moulin Bailly, 92270, Bois Colombes		
Aviva Canada Inc.	Voting Interest	100	11 Rue De L'Echelle	Ordinary Shares	100
Aviva General Insurance Company	Common Shares	100	Agents 3A	Ordinary Shares	50
Aviva Insurance Company of Canada	Common Shares	100	Aviva Assurances, Société Anonyme d'Assurances	Ordinary Shares	100
Aviva Warranty Services Inc.	Common Shares	100	Incendie, Accidents et Risques Divers		
Elite Insurance Company	Common Shares	100	13, Avenue Lebrun, 92188, Antony Cedex		
Insurance Agent Service Inc.	Common Shares	100	Pierrevenue	Ordinary Shares	74
National Home Warranty Group Inc.	Common Shares	100	14 Rue Roquépine, 75008, Paris		
OIS Ontario Insurance Service Limited	Common Shares	100	Afer – SFER	Ordinary Shares	50
Pilot Insurance Company	Common Shares	100	Aviva Convertibles	Ordinary Shares	86
S&Y Insurance Company	Common Shares	100	Aviva Europe	Ordinary Shares	96
Scottish & York Insurance Co. Limited	Common Shares	100	Aviva Développement	Ordinary Shares	99
Traders General Insurance Company	Common Shares	100	Aviva Diversifie	Ordinary Shares	95
Wayfarer Insurance Brokers Limited	Common Shares	100	Aviva Investors France	Ordinary Shares	99
100 King Street West, Suite 4900, Toronto On M5X 2A2			Aviva Oblig International	Ordinary Shares	72
Aviva Investors Canada Inc.	Common Shares	100	Aviva Oblirea	Ordinary Shares	85
100, 10325 Bonaventure Drive S.E., Calgary T2J 7E4			Aviva Patrimoine	Ordinary Shares	92
A-Win Insurance Ltd.	Ordinary Shares	100	Aviva Rendement Europe	Ordinary Shares	90
328 Mill Street, Unit 11, Beaverton L0K 1A0			Aviva Valeurs Francaises	Ordinary Shares	83
Bay-Mill Specialty Insurance Adjusters Inc.	Common Shares	100	Aviva Valeurs Immobilières	Ordinary Shares	41
480 University Avenue, Suite 800, Toronto On M5G 1V2			153, Boulevard Haussmann, 75008, Paris		
LMS Prolink Limited ²	Common A Shares	34	Selectus	FCP	96
555 Chabanel Ouest, Bureau 900, Montreal QC H2N 2H8			17 Rue du Cirque, 75008, Paris		
Aviva Agency Services Inc.	Common A Shares	100	Financiere Du Carrousel	Ordinary Shares	74
600 Cochrane Drive, Suite 205, Markham On L3R 5K3			Infinis	Ordinary Shares	74
Westmount Guarantee Services Inc.	Common A Shares	33	20 Place Vendôme, 75001, Paris		
Cayman Islands			AXA Lbo Fund IV Feeder	Private Equity Fund	35
115 East 57th Street, Suite 1019, New York NY 10022			AXA UK Infrastructure Investment SAS	Ordinary Shares	100
Belmont Global Trend Fund Ltd	Mutual Fund	14	Croissance Pme A C.	FCP	97
			24 Rue de la Pépinière, 75008 Paris		
			Aviva Investors Euro Crédit Bonds 1-3 HDR	FCP	39
			Afer Actions Amerique Fcp	FCP	100
			Afer Actions Euro A	FCP	100
			Afer Actions Monde	FCP	100
			Afer Convertibles C.	FCP	100
			Afer Diversifie Durable	FCP	100
			Afer Marches Emergents Fcp	FCP	100
			Afer Multi Foncier	FCP	100
			Afer Obl Md Ent C.	FCP	100

Notes to the consolidated financial statements > [Continued](#)

Company name	Share Class ¹	% held	Company name	Share Class ¹	% held
Afer Patrimoine	FCP	100	Aviva Investors Monétaire	FCP	55
Afer-Flore	FCP	98	Aviva Investors Valorisation	FCP	100
Afer-Sfer	SICAV	100	Aviva Japan	FCP	100
Aviva Actions Croissance	FCP	100	Aviva Messine 5	FCP	100
Aviva Actions Euro	FCP	98	Aviva Performance Divers.Fcp	FCP	100
Aviva Actions Europe ISR	FCP	100	Aviva Valeurs Responsable A	FCP	100
Aviva Actions France	FCP	79	32, Avenue d'Iéna, 75116 Paris		
Aviva Amérique	FCP	97	Aviva Capital Planete (Avicap)	FCP	100
Aviva Asie	FCP	100	CGP Entrepreneurs	Ordinary Shares	74
Aviva Convertibles	SICAV	98	Myria Asset Management	Ordinary Shares	74
Aviva Conviction Opportunités	FCP	100	UFF Selection Alpha-A (Ufselaa)	FCP	98
Aviva Conviction Patrimoine	FCP	100	UFF Actions France-Aeur (UFFacfa)	FCP	99
Aviva Développement	SICAV	99	UFF Allocation Optimum	FCP	99
Aviva Diversifié	SICAV	94	UFF Cap Diversifié (UCAPDIV)	FCP	51
Aviva Eur Corp Senior Debts	FCT	100	UFF Capital Planete A (Aviufcp)	FCP	98
Aviva Europe	SICAV	96	UFF Croissance Pme A (Ucapcro)	FCP	100
Aviva Flexible (AVIFLEX)	FPS	100	UFF Emergence-A (UFFemga)	FCP	99
Aviva Flexible Emergents A FCP	FCP	100	UFF Europe Opportunités-Aeur (UFFgeua)	FCP	99
Aviva France Opportunités	FCP	83	UFF Euro Valeur A	FCP	100
Aviva Grdes Marq A.C.	FCP	99	UFF Global Allocation A	FCP	100
Aviva Interoblig	FCP	100	UFF Global Foncières-A (Ufgf70A)	FCP	98
Aviva Investors Actions Euro	FCP	83	UFF Global Multi-Strategie-A (Ufglmsa)	FCP	99
Aviva Investors Alpha Taux A	FCP	100	UFF Global Obligations-A (Ufgf30A)	FCP	97
Aviva Investors Alpha Yield	FCP	92	UFF Global Reactif-A (Ufgf10A)	FCP	95
Aviva Investors Britannia (D)	SICAV	98	UFF Liberty-A (UFFliba)	FCP	100
Aviva Investors Conviction	FCP	100	UFF Selection Premium A (Uavfran)	FCP	98
Aviva Investors Euro Aggregate	FCP	76	Ufrance Gestion	Ordinary Shares	74
Aviva Investors Euro Com R E D	FCP	100	Ufrance Patrimoine	Ordinary Shares	74
Aviva Investors Euro Crédit Bonds 1-3	FCP	77	UFF Privilège A	FCP	29
Aviva Investors Japan	FCP	95	Union Financière de France Banque	Ordinary Shares	74
Aviva Investors Portefeuille	FCP	100	36 Rue De Naples 75008 Paris		
Aviva Investors Reference Div	FCP	100	Cybele Am – Bellatrix-C (THIPATC)	SICAV	78
Aviva Investors Repo (avirepo)	FCP	100	Cybele Am Betelgeuse (BETGUSV)	SICAV	92
Aviva Investors Selection	FCP	100	Ufrance Immobilier	Ordinary Shares	20
Aviva Investors Valeurs	FCP	100	37 Avenue des Champs Elysées, 75008, Paris		
Aviva Investors Valeurs Europe	FCP	74	Cybele Europe Israel Croissance (FRAISCR)	SICAV	85
Aviva Investors Yield Curve Abs Rt R	FCP	100	Société Française de Gestion et d'Investissement	Ordinary B Shares	67
Aviva Monétaire Isr (A)	FCP	98	Sirius	SICAV	98
Aviva Multigestion	FCP	100	41 Rue Capitaine Guynemer, 92400, Courbevoie		
Aviva Oblig International	SICAV	90	Logipierre 1	Ordinary Shares	44
Aviva Oblirea	SICAV	97	47 Rue du Faubourg Saint-Honoré, 75008, Paris		
Aviva Patrimoine	SICAV	98	Aviva Selection (Edmasio)	FCP	100
Aviva Performance	FCP	100	CGU Equilibre	FCP	81
Aviva Rebond	FCP	88	L'Antenne-U (Edmianu)	FCP	97
Aviva Rendement Europe	SICAV	95	UFF Global Convertibles A	FCP	99
Aviva Selection Opportunités	FCP	99	53 Avenue d'Iéna		
Aviva Selection Patrimoine	FCP	100	UFF Valeurs Pme-A (Fintrma)	FCP	98
Aviva Signatures Europe	FCP	100	62 Rue du Faubourg Saint-Honoré, 75008, Paris		
Aviva Structure Index 1 C.	FCP	100	Diapason 1	FCP	84
Aviva Structure Index 2	FCP	100	7 Rue Auber, 75009, Paris		
Aviva Structure Index 4 C.	FIPS	100	Vip Conseils	Ordinary Shares	34
Aviva Structure Index3	FPS	100	70 Avenue De L'Europe, 92270 Bois-Colombes		
Aviva Small & Mid Caps Euro ISR	FCP	100	Aviva Epargne Retraite	Ordinary Shares	100
Aviva Valeurs Françaises	SICAV	98	Aviva France Ventures	Ordinary Shares	100
Aviva Valeurs Immobilières	SICAV	79	Aviva Investissements	Ordinary Shares	100
Aviva Valorisation Opportunité	FCP	99	Aviva Retraite Professionnelle	Ordinary Shares	100
Aviva Valorisation Patrimoine	FCP	100	Aviva Vie, Société Anonyme d'Assurances Vie et de	Ordinary Shares	100
FPE Aviva Eur Corp Senior Db2	Mutual Fund	31	Capitalisation		
FPE Aviva Small & Midcap ASAM	FCP	100	Epargne Actuelle	Ordinary Shares	100
UFF Cap Défensif	FCP	97	Newco 3	Ordinary Shares	100
UFF Eu-Val 0-100 A.C.	FCP	98	Newco 5	Ordinary Shares	100
UFF Obligations 5-7 A	FCP	99	Société Civile Immobilière Carpe Diem	Ordinary Shares	50
UFF Rendement Diversifié A	FCP	100	Société Civile Immobilière Charles Hermite	Ordinary Shares	56
24-26 Rue De La Pépinière, 75008, Paris			Société Civile Immobilière Moutaigne	Ordinary Shares	92
100 Courcelles	Ordinary Shares	100	Zelmis	Ordinary Shares	100
Afer Immo	Ordinary Shares	100	80 Avenue De L'Europe, 92270 Bois-Colombes		
Afer Immo 2	Ordinary Shares	100	Aviva France	Ordinary Shares	100
Aviva Commerce Europe	Ordinary Shares	65	Aviva Solutions	Ordinary Shares	100
Aviva Immo Selection	Ordinary Shares	99	Croissance Pierre II	Ordinary Shares	100
Aviva Investors Real Estate France S.A.	Ordinary Shares	100	Groupe D'Interet Economique du Groupe	Ordinary Shares	100
Aviva Investors Real Estate France SGP	Ordinary Shares	100	Aviva France		
Aviva Patrimoine Immobilier	Ordinary Shares	93	Locamat SAS	Ordinary Shares	100
Logiprime Europe	Ordinary A Shares	98	Newco	Ordinary Shares	100
Primotel Europe	Ordinary Shares	99	SCI Pesaro	Ordinary Shares	79
SCI La Coupole Des Halles	Ordinary Shares	98	Selectinvie – Société Civile Immobilière	Ordinary Shares	100
SCI Pergola	Ordinary Shares	100	Selectipierre – Société Civile	Ordinary Shares	94
Société Civile Immobilière Thomas Edison	Ordinary Shares	50	Société Concessionnaire des Immeubles de la	Ordinary Shares	100
Société Civile Immobilière Playel R2	Ordinary Shares	50	Pepiniere		
Sapphire Ile de France SCI	Ordinary Euro 1 Each Shares	100	Victoire Immo 1- Société Civile	Ordinary Shares	100
Afer Avenir Senior	SICAV	100	Voltaire S.A.S	Ordinary Shares	100
Aviva Investors Commercial Real Estate Debt Fun	FCP	68	90 Boulevard Pasteur, 75015, Paris		
Aviva Investors Inflation Euro Hd	FCP	50	Aviva Actions S2 C.	FCP	100

Company name	Share Class ¹	% held
Aviva Couv Actions C.	FCP	100
91-93 Boulevard Pasteur, 75015, Paris		
SCI Campus Medicis St Denis	Ordinary Shares	30
SCI Campus Rimbaud St Denis	Ordinary Shares	30
Tour Majunga – La Défense 9, 6 place de la Pyramide		
AXA Premiere Categorie	SICAV	85
9 Rue Newton, 75116 Paris		
Pretons Ensemble	FPS	50
14 Rue Bergère, 75009 Paris		
Afer Actions PME	FCP	100
Aviva Perspective 2021-2025	FCP	100
Aviva Perspective 2026-2030	FCP	100
Aviva Perspective 2031-2035	FCP	100
Aviva Perspective 2036-2040	FCP	100
24 Rue de la Pépinière, 75008 Paris		
Aviva Valeurs Responsables	FCP	100
3 Rue Alexandre Fleming France 92260		
Kroknet S. a. r. l.	Ordinary Shares	90
Germany		
c/o Wswp Weinert GmbH, Theatinerstr. 31, 80333, Munich		
FPB Holdings GmbH	Series A Shares, Series B Shares	100
Eschenheimer Anlage 1, 60316, Frankfurt		
Reschop Carré Hattingen GmbH	Ordinary Shares	95
Reschop Carré Marketing GmbH	Ordinary Shares	100
Max-Planck-Strasse, 3,85609 Aschheim-Dornach		
ASF German Retail GmbH & Co. KG	Ordinary Shares	98
German Retail Investment Properties Sarl	Ordinary Shares	98
German Retail I GmbH	Ordinary Shares	98
German Retail II GmbH	Ordinary Shares	98
German Retail IV GmbH	Ordinary Shares	98
German Retail IX GmbH	Ordinary Shares	98
German Retail V GmbH	Ordinary Shares	98
German Retail VII GmbH	Ordinary Shares	98
German Retail VIII GmbH	Ordinary Shares	98
Speditionstraße 23, 40221 Düsseldorf		
Projektgesellschaft Hafenspitze mbH	Ordinary Shares	94
Guernsey		
Dorey Court Admiral Park, St Peter Port, Guernsey, GY1 2HT		
First Meridian Cautious Balanced Fund GBP	OEIC	29
First Meridian Cautious Balanced Fund USD	OEIC	20
The Fincrest Global Equity Fund	OEIC	23
PO Box 255, Trafalgar Court, Les Banques, St. Peter Port, GY1 3QL		
AXA Property Trust Ltd	OEIC	28
F&C Commercial Property Trust Limited	OEIC	47
St Martin's House, Le Bordage, St Peter Port		
Paragon Insurance Company Guernsey Limited	Ordinary Shares	47
80 George Street,		
F&C Commercial Property Trust Ltd	Closed Ended Investment Company	20
Hong Kong		
21st Floor, Chater House, 8 Connaught Road Central		
JPMorgan Indonesia Fund	Unit Trust	25
30/F, One Kowloon, 1 Wang Yuen Street, Kowloon Bay, Hong Kong		
Aviva Life Insurance Company Limited	Ordinary Shares	40
India		
2nd Floor, Prakash Deep Building 7, Tolstoy Marg, New Delhi, Delhi, 110001		
CGU Project Services Private Limited	Rs.10 Shares	100
Aviva Life Insurance Company India Limited ²	Ordinary Shares	49
A-47 (L.G.F), Hauz Khas, New Delhi, Delhi		
Sesame Group India Private Limited	Ordinary Shares	100
Pune Office Addresses 103/P3, Pentagon, Magarpatta City, Hadapsar, Pune – 411013		
A.G.S. Customer Services (India) Private Limited	Ordinary Shares	100
Indonesia		
Pondok Indah Office Tower 3, 1st Floor, Jl. Sultan Iskandar Muda Kav. V-TA, Pondok Indah, Jakarta Selatan, Jakarta, 12310		
PT Astra Aviva Life ²	Ordinary Shares	50
Ireland		
25/28 North Wall Quay, Dublin		
CGWM Select Affinity Fund	OEIC	23

Company name	Share Class ¹	% held
CGWM Select Global Affinity Fund	OEIC	60
CGWM Select Global Diversity Fund	OEIC	39
CGWM Select Global Opportunity Fund	OEIC	51
CGWM Select Opportunity Fund	OEIC	42
Anna Livia Properties Limited	Ordinary Shares	100
Aviva Investors Euro Liquidity Fund	ICVC	81
Aviva Investors Sterling Government Liquidity Fund	ICVC	98
Aviva Investors Sterling Liquidity Fund	ICVC	78
Aviva Investors Sterling Liquidity Plus Fund	ICVC	78
Central Quey, Riverside IV4, Sir John Rogerson's Quey, Dublin 2		
BMO Multi-Strategy Global Equity Fund	OEICS	93
Georges Court, 54-62 Townsend Street, Dublin 2		
FPPE Fund Public Limited Company	Shares Of No Par Value Shares, 1 Subscriber Euro €1 Shares	100
FPPE – Private Equity	Private Equity	100
Guild House, Guild Street, IFRS, Dublin 1		
Aviva Irl Merrion Exempt Trust – Managed Fund	Unit Trust	37
One Park Place, Hatch Street, Dublin 2		
Area Life International Assurance dac	A Shares, B Shares	100
Aviva Direct Ireland Limited	Ordinary Shares	100
Aviva Driving School Ireland Limited	Ordinary Shares	100
Aviva Group Ireland Limited	Ordinary Shares	100
Aviva Group Services Ireland Limited	Ordinary Shares	92
Aviva Insurance Ireland Designated Activity Company	Ordinary Shares	100
Aviva Life Services Ireland Limited	Ordinary Shares	92
Aviva Trustee Company Ireland Designated Activity Company	Ordinary Shares	92
Aviva Undershaft Four Limited	Ordinary Shares	100
Peak Re Designated Activity Company	Ordinary Shares	100
Charlotte House, Charlemont St		
Mercer Diversified Retirement Fund	OEIC	22
3rd Floor, 2 Harbourmaster Place, IFSC		
KBI Institutional Fund ICAV – KBI Institutional Eurozone Equity Fund	OEIC	43
Behan House		
10 Mount Street Lower Dublin 2		
Ireland		
CALM Eurozone Equity Sub Fund	OEIC	91
AG10 Currency Fund	OEIC	93
78 Sir John Rogersons Quay Dublin 2 Ireland		
State Street IUT Balanced Fund S30	Unit Trust	30
SS&A GRU Euro Index Equity Fund	Unit Trust	47
One Coleman Street, London EC2R 5AA, United Kingdom		
Legal & General ICAV – L&G World Equity Index Fund	OEIC	39
Legal & General ICAV – L&G Multi-Index EUR V Fund	OEIC	95
Legal & General ICAV – L&G Multi-Index EUR IV Fund	OEIC	100
Legal & General ICAV – L&G Multi-Index EUR III Fund	OEIC	100
Friends First House		
Cherrywood Science & Technology Park Loughlinstown Co. Dublin		
Ireland		
Ashtown Management Company Limited	Ordinary Shares	50
Atrium Nominees Limited	Ordinary Shares	100
Friends First Life Assurance Company DAC (Friends First)	Ordinary Shares	100
Friends First Life Assurance Company Designated Activity Company	Ordinary Shares-A	100
Friends First Managed Pensions Funds Designated Activity Company	Ordinary Shares-B	100
Friends First US Property Company Limited	Ordinary Shares	100
Isle of Man		
Royal Court, Castletown, IM9 1RA		
Friends Provident International Limited	Ordinary B Shares, Ordinary Shares	100
Friends Provident International Services Limited	Ordinary Shares	100
Italy		
Piazzetta Guastalla 1, 20122, Milan		
Banca Network Investimenti SPA	Ordinary Shares	25
Via Scarsellini 14, 20161, Milan		
Aviva Italia Holding S.p.A	Ordinary Shares	100
Aviva Italia S.p.A	Ordinary Shares	100
Aviva Italia Servizi Scarl	Ordinary Shares	36
Aviva Life SPA	Ordinary Shares	100
Aviva SPA	Ordinary Shares	51

Company name	Share Class ¹	% held
Aviva Vita S.p.A	Ordinary Shares	80
Petunia Spa	Ordinary A Shares	51
Milano, Piazza Lina Bo Bardi n. 3		
Aviva Immobiliare	Real Estate Fund	100
Jersey		
19-21 Broad Street, St Helier, JE1 3PB		
11-12 Hanover Square UT ²	Unit Trust	50
130 Fenchurch Street UT ²	Unit Trust	50
30 Warwick Street UT ²	Unit Trust	50
30-31 Golden Square UT ²	Unit Trust	50
Aviva Investors Jersey Unit Trusts Management Limited	Ordinary Shares	100
Barratt House UT ²	Unit Trust	50
Chancery House London UT ²	Unit Trust	50
Irongate House UT ²	Unit Trust	50
New Broad Street House UT ²	Unit Trust	50
Pegasus House and Nuffield House UT ²	Unit Trust	50
W Nine UT ²	Unit Trust	50
3rd Floor Walker House, 28-34 Hill Street, St Helier, JE4 8PN		
1 Fitzroy Place Jersey Unit Trust ²	Unit Trust	50
2 Fitzroy Place Jersey Unit Trust ²	Unit Trust	50
Le Masurier House, La Rue Le Masurier, St Helier, JE2 4YE		
Yatra – (Saffron)	Ordinary Shares	27
Lime Grove House, Green Street, St Helier, JE1 2ST		
20 Gracechurch Unit Trust	Unit Trust	100
COW Real Estate Investment Unit Trust	Unit Trust	100
Designer Retail Outlet Centres (Mansfield) Unit Trust	Unit Trust	97
Designer Retail Outlet Centres (York) Unit Trust	Unit Trust	97
Designer Retail Outlet Centres Unit Trust	Unit Trust	97
Quantum Property Unit Trust ²	Unit Trust	50
Serviced Offices UK Unit Trust ²	Unit Trust	50
Southgate Unit Trust	Unit Trust	50
3rd Floor, One The Esplanade, Jersey, JE2 3QA		
Crieff Road Limited	Ordinary Shares	100
FF UK Select Limited	Ordinary Shares	100
Lithuania		
Lvovo g. 25, Vilnius, LT-09320		
Uždaroji akcinė gyvybės draudimo ir pensijų bendrovė "Aviva Lietuva" (Joint Stock Limited Life Insurance and Pension Company Aviva Lietuva)	Ordinary Shares	90
Luxembourg		
10 Rue du Fort Bourbon, L-1249		
VH German Mandate	Ordinary Shares	100
11 Rue du Fort Bourbon, L-1249		
Centaurus Sarl	Ordinary Shares	100
14 Rue du Fort Bourbon, L-1249		
Aviva Investors European Renewable Energy S.A.	Ordinary Shares	100
15 Rue du Fort Bourbon, L-1249		
Aviva Investors European Secondary Infrastructure Credit SV S.A	Ordinary Shares	67
16 Avenue de la Gare, 1610		
Aviva Investors Luxembourg Services S.à r.l.	Ordinary Shares	100
Aviva Investors Polish Retail S.à r.l.	Ordinary Shares	100
16 Rue Jean-Pierre Brasseur, L-1258		
VAM Funds (Lux) – International Real Estate Equity Fund	SICAV	33
VAM Managed Funds (Lux) – Close Brothers Growth Fund	SICAV	20
19 Rue du Fort Bourbon, L-1249		
Lend Lease Retail Partners	Ordinary Shares	26
1c Rue Gabriel Lippmann		
Patriarch Classic B&W Global Freestyle	FCP	31
2 Boulevard de la Foire, L-1528		
Pramerica Pan-European Real Estate Fund	Ordinary Shares	76
2 Rue de Bitbourg, L-1273		
Henderson Horizon – European Growth Fund	SICAV	32
2 Rue du Fort Bourbon, L-1249		
AFRP S.à r.l.	Ordinary Shares	100
AIEREF Holding 1 S.a.r.l	Equity Shares	44
AIEREF Holding 2 S.a.r.l	Equity Shares	100
Aviva Investors Alternative Income Solutions General Partner S.à r.l.	Ordinary Shares	100
Aviva Investors Alternative Income Solutions Limited Partnership	Limited Partnership	55
Aviva Investors Asian Equity Income Fund	SICAV	99
Aviva Investors CELLS Danone Sarl	SICAV	100
Aviva Investors Investment Solutions Emerging Markets Debt Fund	SICAV	100
Aviva Investors Cells (GP) S.à r.l.	Ordinary Shares	100

Company name	Share Class ¹	% held
Aviva Investors CELLS Holding Sarl	Ordinary Shares	100
Aviva Investors CELLS SCSp	Limited Partnership	100
Aviva Investors CELLS Stern Sarl	Ordinary Shares	100
Aviva Infrastructure Debt Europe I S.A	SICAV	100
Aviva Investors EBC S.à r.l.	Ordinary Shares	100
Aviva Investors Emerging Markets Bond Fund	SICAV	89
Aviva Investors Emerging Markets Corporate Bond Fund	SICAV	66
Aviva Investors Emerging Markets Equity Income Fund	SICAV	98
Aviva Investors Emerging Markets Equity Small Cap Fund	SICAV	89
Aviva Investors Emerging Markets Local Currency Bond Fund	SICAV	91
Aviva Investors European Corporate Bond Fund	SICAV	65
Aviva Investors European Equity Fund	SICAV	62
Aviva Investors European Equity Income Fund	SICAV	100
Aviva Investors European Infrastructure Debt Str	FIAR	22
Aviva Investors European Real Estate Securities Fund	SICAV	67
Aviva Investors Global Aggregate Bond Fund	SICAV	95
Aviva Investors Global Investment Grade Corporate Bond Fund	SICAV	97
Aviva Investors Global Convertibles Absolute Return Fund	SICAV	81
Aviva Investors Global Convertibles Fund	SICAV	39
Aviva Investors Global Emerging Markets Index Fund	SICAV	100
Aviva Investors Global Equity Endurance Fund	SICAV	100
Aviva Investors Global High Yield Bond Fund	SICAV	69
Aviva Investors Luxembourg	Nominal Par Value Shares	100
Aviva Investors Multi-Strategy Fixed Income Fund	SICAV	70
Aviva Investors Short Duration Global High Yield Bond Fund	SICAV	45
Aviva Investors UK Equity Focus Fund	SICAV	91
Aviva Investors US Equity Income Fund	SICAV	70
Centaurus CER (Aviva Investors) Sarl	Ordinary Shares	100
Hexagone S.à r.l.	Ordinary Shares	100
Sapphire Ile de France 1 S.à r.l.	Ordinary Shares	100
Sapphire Ile de France 2 S.à r.l.	Ordinary Shares	100
Victor Hugo 1 S.à r.l.	Ordinary Each Eur 25 Shares	100
3 Rue des Labours, L-1912		
Haspa Trendkonzep	FCP	40
42 Rue de la Vallée, L-2661		
World Investment Opportunities Funds – China Performance Fund	SICAV	36
47 Avenue John F Kennedy		
Goodman European Business Park Fund (Lux) S.à r.l.	Ordinary Shares	100
49 Avenue J.F. Kennedy, L-1855		
AXA World Funds II – North American Equities	SICAV	20
BMO Global Equity Market Neutral V10 Fund	SICAV	52
BMO Global Total Return Bond Fund	SICAV	66
6 Rue du Fort Bourbon, L-1249		
German Retail Associate Property Fund FCP-SIF	FCP	98
German Retail III GmbH	Ordinary Shares	98
Sachsenfonds GmbH	Ordinary Shares	98
9 Rue du Fort Bourbon, L-1249		
EPI NU Sarl	Ordinary Shares	100
Boulevard Konrad Adenauer		
Deutsche European Property Fund	Ordinary Shares	20
Xtrackers II Eurozone Government Bond 15-30 UCITS ETF	SICAV	36
c/o CACEIS BANK Lux, 5, Allée Scheffer, L-2520		
PI EMU EQUITY-XEURND (PIEMUXE)	OEIC	22
Takehau Italy Retail Fund II Scsp-Area12	FCP	31
28-32, Place de la Gare, L-1616 Luxembourg		
Ver Capital Credit Partners IV SICAV – SIF	SICAV	22
Ver Capital Credit VI – Sub Fund A	SICAV	43
Ver Capital Credit VI – Sub Fund B	SICAV	43
Jupiter Asset Management Ltd., 70 Victoria Street, The Zig Zag Building		
Jupiter Global Fund – Jupiter Global Financials	SICAV	21
Jupiter Global Fund – Jupiter New Europe	SICAV	55
2c, rue Albert Borschette, L-1246, Luxembourg		
Grand Duchy of Luxembourg		
AQR Systematic Total Return Fund II	SICAV	41
47 Avenue John F. Kennedy Luxembourg		
L – 1855		
Centaurus CER (Aviva Investors) Sarl	Ordinary Shares	100

Company name	Share Class ¹	% held
Malta		
184 St. Lucia Street, Valletta, VLT 1189		
Herakles	SICAV	60
Mauritius		
4th Floor, Raffles Tower, 19 Cybercity, Ebene		
Reliance Emergent India Fund	OEIC	88
Les Cascades, Edith Cavell Street, Port Louis		
Actis China Investment Company Limited	US\$ A Shares	50
Norway		
Tollbugate 27,0157 Oslo		
Aviva Investors CELLS Norway Holding AS	Cells Fund	100
Aviva Investors CELLS Norway AS	Cells Fund	100
Kongsgard Alle 20 AS	Cells Fund	100
Poland		
Al. Jana Pawła II 25, 00-854 , Warszawa		
Focus Park Piotrków Trybunalski sp.z o.o	Ordinary Shares	100
Focus Mall Zielona Gora Sp. Z o.o.	Ordinary Shares	100
Lodz BC Sp. z o.o	Ordinary Shares	100
Wroclaw BC sp. z.o.o	Ordinary Shares	100
Inflancka 4b, 00-189 Warszawa		
Aviva Investors FIO Aktywnej Alokacji	UCITS	24
Aviva Investors Fio Depozyt Plus	UCITS	38
Aviva Investors Fio Nowoczesnych Technologii	UCITS	72
Aviva Investors Fio Nowych Spolek	UCITS	86
Aviva Investors Fio Obligacji	UCITS	78
Aviva Investors Fio Polskich Akcji	UCITS	56
Aviva Investors FIO Subfundusz Aviva Investors Obligacji Dynamiczny	UCITS	22
Aviva Investors Sfio Akcyjny	Non UCITS	100
Aviva Investors Sfio Aviva Lokacyjny	Non UCITS	71
Aviva Investors Sfio Dłużny	Non UCITS	100
Aviva Investors Sfio Pap Nieskarbowych	Non UCITS	99
Aviva Investors Sfio Pieniezny	Non UCITS	100
Aviva Investors Sfio Spolek Dywidend	Non UCITS	100
Aviva Sfio Subfundusz Aviva Oszczędnościowy	Non UCITS	70
Aviva Investors Fio Małych Spolek	UCITS	69
Ul. Burakowska 5/7, 01-066 , Warszawa		
Berkley Investments S.A.	Ordinary A Shares	90
Porowneo.Pl Sp. Z O.O	Ordinary Shares	90
Ul. Prosta 69, 00-838 Warsaw, 00-838, Warsaw		
AdRate Sp. z o.o.	Ordinary Shares	90
Expander Advisors Sp. z o.o.	Ordinary Shares	90
Life Plus Sp. z o.o.	Ordinary Shares	90
Ul. Inflancka 4B, 00-189, Warsaw		
Aviva Investors Poland Towarzystwo Funduszy Inwestycyjnych S.A.	Ordinary D shares	95
Aviva Powszechne Towarzystwo Emerytalne Aviva Santander S.A.	Ordinary A Shares	81
Aviva Services Spółka z ograniczoną odpowiedzialnością	Ordinary 1,000 Pln Shares	100
Aviva Spółka z ograniczoną odpowiedzialnością	Ordinary Shares	90
Aviva Towarzystwo Ubezpieczeń Na Życie S.A.	Parent Interest	90
Aviva Towarzystwo Ubezpieczeń Ogólnych S.A.	Ordinary Shares	90
Santander Aviva Towarzystwo Ubezpieczeń na Życie Spółka Akcyjna	Series A Ordinary	51
Santander Towarzystwo Ubezpieczeń Spółka Akcyjna	Series B Ordinary	51
Saudi Arabia		
Riyad Capital, 6775 Takhassusi Street – Olaya, Riyadh 12331 – 3712		
Al Hadi Sharia Compliant Fund	Mutual Fund	83
Al Mokdam Sharia Compliant Fund	Mutual Fund	77
Al Shamekh Fund	Mutual Fund	70
Al Shuja'a Sharia Compliant Fund	Mutual Fund	77
Singapore		
12 Marina View, #18-02 Asia Square Tower 2, 018961		
Nikko AM Shenton Asia Pacific Fund	Unit Trust	65
Nikko AM Shenton Income Fund	Unit Trust	65
Nikko AM Shenton Global Green Bond Fund	Unit Trust	53
4 Shenton Way, #01-01 SGX Centre 2, Singapore, 068807		
Aviva Ltd	Ordinary Shares	100
Navigator Investment Services Limited	Ordinary Shares	100
6 Shenton Way, #09-08, OUE Downtown, 068809		
Professional Advisory Holdings Ltd.	Ordinary A Shares	92
Professional Investment Advisory Services Pte Ltd	Ordinary A Shares	92
6 Temasek Boulevard, #29-00, Suntec Tower 4, 038986		
Aviva Asia Digital Pte. Ltd.	Ordinary Shares	100

Company name	Share Class ¹	% held
Aviva Asia Pte Ltd	Ordinary Shares	100
Aviva Financial Advisers Pte. Ltd	Ordinary Shares	100
Aviva Global Services (Management Services) Private Ltd.	Ordinary Shares	100
Spain		
Avda Andalucia, 10-12, Malaga		
Ahorro Andaluz, S.A	Ordinary Shares	46
Avda de Bruselas – Numero 13, Edificio, America, Piso 1, Puerta d,Alcobendas 28-Madrid		
Eólica Almatret S.L.	Ordinary Shares	45
Nanclares de Oca, numero 1-B Spain 28022		
San Ramon Hoteles	Ordinary Shares	100
Todo Real Est Investments	Ordinary Shares	100
Switzerland		
Stockerstrasse, 38 8002 , Zurich		
Aviva Investors Schweiz GmbH	Interest Shares	100
Turkey		
Saray Mah., Adnan Büyükdenez Cad. No:12 34768 Umraniye, Istanbul		
AvivaSA Emeklilik ve Hayat A.S. ²	Ordinary Shares	40
United Kingdom		
1 Dorset Street, Southampton, Hampshire, SO15 2DP		
Building a Future (Newham Schools) Limited	Ordinary Shares	100
Mill NU Properties Limited	Ordinary A Shares	100
NU Developments (Brighton) Limited	Ordinary Shares	100
NU Local Care Centres (Bradford) Limited	Ordinary Shares	100
NU Local Care Centres (Chichester No.1) Limited	Ordinary Shares	100
NU Local Care Centres (Chichester No.2) Limited	Ordinary Shares	100
NU Local Care Centres (Chichester No.3) Limited	Ordinary Shares	100
NU Local Care Centres (Chichester No.4) Limited	Ordinary Shares	100
NU Local Care Centres (Chichester No.5) Limited	Ordinary Shares	100
NU Local Care Centres (Chichester No.6) Limited	Ordinary Shares	100
NU Local Care Centres (Farnham) Limited	Ordinary Shares	100
Centrium 1, Griffiths Way		
St Albans, United Kingdom, AL1 2RD		
Opal (UK) Holdings Limited	Ordinary Shares	29
Opal Information Systems Limited	Ordinary Shares	29
Outsourced Professional Administration Limited	Ordinary Shares	29
Synergy Financial Products Limited	Ordinary Shares	29
29 Queen Anne's Gate, London SW1H 9BU		
CF Bentley Global Growth	OEIC	29
30 Finsbury Square, London, EC2P 2YU		
Defined Returns Limited	Ordinary Shares	57
Invesco Emerging Markets Equity Fund	Unit Trust	25
Invesco Global Health Care Fund	Unit Trust	35
Invesco Funds Series – Invesco UK Equity Fund	Unit Trust	27
NDF Administration Limited	Ordinary Shares, Non Voting B Shares	67
United Kingdom Temperance and General Provident Institution	Company Limited by Guarantee	100
42 Dingwall Road, Croydon, Surrey, CR0 2NE		
Ballard Investment Company Limited	Ordinary Shares	25
Health & Case Management Limited	Ordinary Shares, Preference Shares	25
43-45 Portman Square, London, W1H 6LY		
Quantum Property Partnership (General Partner) Limited ²	Ordinary Shares	50
Quantum Property Partnership (Nominee) Limited ²	Ordinary Shares	50
4th Floor, New London House, 6 London Street, London, EC3R 7LP		
Polaris U.K. Limited	Ordinary Shares	39
5 Lister Hill, Horsforth, Leeds, LS18 5AZ		
Aspire Financial Management Limited	Ordinary Shares	47
Living in Retirement Limited	Ordinary Shares	47
Sinfonia Asset Management Limited	Ordinary Shares	47
Tenet Business Solutions Limited	Ordinary Shares	47
Tenet Client Services Limited	Ordinary Shares	47
Tenet Financial Services Limited	A Ordinary Redeemable Ordinary Shares	37
Tenet Group Limited	Ordinary B Shares	47
Tenet Limited	Ordinary Shares	47
Tenet Platform Services Limited	Ordinary A Shares	47
TenetConnect Limited	Ordinary Shares	47
TenetConnect Services Limited	Ordinary Shares	47
TenetFinancial Solutions Limited	Ordinary Shares	47
TenetLime Limited	Ordinary Shares	47
TenetSelect Limited	Ordinary Shares	47
5 Old Broad Street, London EC2N 1A		
Architas Multi-Manager Diversified Protector 70	OEIC	48

Company name	Share Class ¹	% held	Company name	Share Class ¹	% held
Architas Multi-Manager Diversified Protector 80	OEIC	35	Friends Life Company Limited	Ordinary Shares	100
50 Stratton Street, London, W1J 8LL			Friends Life Distribution Limited	Ordinary Shares	100
Lazard Multicap UK Income Fund	OEIC	49	Friends Life FPG Limited	Ordinary Shares	100
7 Lochside View, Edinburgh, EH12 9DH			Friends Life FPL Limited	Ordinary Shares	100
Origo Services Limited	Ordinary Shares	22	Friends Life FPLMA Limited	Ordinary Shares	100
7 Newgate Street, EC1A 7NX			Friends Life Holdings plc	Ordinary Shares	100
AXA Ethical Distribution Fund	OEIC	32	Friends Life Limited	Ordinary Shares	100
AXA Rosenberg American	OEIC	83	Friends Life WL Limited	Ordinary Shares	100
AXA Rosenberg Asia Pacific Ex Japan	OEIC	93	Friends Provident Distribution Holdings Limited	Ordinary Shares	100
AXA Rosenberg Global	OEIC	86	Friends Provident Investment Holdings Limited	Ordinary A Shares	100
AXA Rosenberg Japan	OEIC	93	Friends Provident Life Assurance Limited	Ordinary Shares	100
8 Surrey Street, Norwich, Norfolk, NR1 3NG			Friends Provident Managed Pension Funds Limited	Ordinary Shares	100
Aviva Central Services UK Limited	Ordinary Shares	100	Friends SL Nominees Limited	Ordinary Shares	100
Aviva Consumer Products UK Limited	Ordinary Shares	100	Friends SLUA Limited	Ordinary Shares	100
Aviva Health UK Limited	Ordinary Shares	100	Gateway Specialist Advice Services Limited	Ordinary Shares	100
Aviva Insurance UK Limited	Ordinary Shares	100	Hengrove Park Bristol (Phase I) Management Company Limited	Ordinary Shares	100
Aviva UKGI Investments Limited	Ordinary Shares	100	London and Manchester Group Limited	Ordinary Shares	100
Gresham Insurance Company Limited	Ordinary Shares	100	Premier Mortgage Service Limited	Ordinary Shares	100
Healthcare Purchasing Alliance Limited ²	Ordinary A Shares	50	SB Loan Administration Limited	Ordinary Shares	100
London and Edinburgh Insurance Company Limited	Ordinary Shares	100	Sesame Bankhall Group Limited	Ordinary Shares	100
RAC Pension Trustees Limited	Ordinary Shares	100	Sesame Bankhall Valuation Services Limited	Ordinary A Shares	75
Solus (London) Limited	Ordinary Shares	100	Sesame General Insurance Services Limited	Ordinary Shares	100
Synergy Sunrise (Broadlands) Limited	Ordinary Shares	100	Sesame Limited	Ordinary Shares	100
Argyll House, All Saints Passage, London, SW18 1EP			Sesame Regulatory Services Limited	Ordinary Shares	100
Freeritcity Southeast Limited	Ordinary Shares	100	Sesame Services Limited	Ordinary A Shares	100
c/o Anesco Limited, The Green Easter Park, Benyon Road, Reading, RG7 2PQ			Suntrust Limited	Ordinary Shares	100
Homesun 2 Limited	Ordinary Shares	100	Undershaft FAL Limited	Ordinary Shares	100
Homesun 3 Limited	Ordinary Shares	100	Undershaft FPLA Limited	Ordinary Shares	100
Homesun 4 Limited	Ordinary Shares	100	Undershaft SLPM Limited	Ordinary Shares	100
Homesun 5 Limited	Ordinary Shares	100	Wealth Limited	Ordinary Shares	100
Homesun Limited	Ordinary Shares	100	St Helen's, 1 Undershaft, London, EC3P 3DQ		
c/o James Fletcher, Mainstay, Whittington Hall, Whittington Road, Worcester, WR5 2ZX			1 Fitzroy Place Limited Partnership ²	Limited Partnership	50
Aviva Investors GR SPV 1 Limited	Ordinary Shares	100	10-11 GNS Limited	Ordinary Shares	100
Aviva Investors GR SPV 2 Limited	Ordinary Shares	100	11-12 Hanover Square LP ²	Limited Partnership	50
Aviva Investors GR SPV 3 Limited	Ordinary Shares	100	11-12 Hanover Square Nominee 1 Limited ²	Ordinary Shares	50
Aviva Investors GR SPV 4 Limited	Ordinary Shares	100	11-12 Hanover Square Nominee 2 Limited ²	Ordinary Shares	50
Aviva Investors GR SPV 5 Limited	Ordinary Shares	100	130 Fenchurch Street LP ²	Limited Partnership	50
Aviva Investors GR SPV 6 Limited	Ordinary Shares	100	130 Fenchurch Street Nominee 1 Limited ²	Ordinary Shares	50
Aviva Investors GR SPV 7 Limited	Ordinary Shares	100	130 Fenchurch Street Nominee 2 Limited ²	Ordinary Shares	50
Aviva Investors GR SPV 8 Limited	Ordinary Shares	100	1-5 Lowndes Square Management Company Limited	Ordinary Shares	100
Aviva Investors GR SPV 9 Limited	Ordinary Shares	100	2 Fitzroy Place Limited Partnership ²	Limited Partnership	50
Aviva Investors GR SPV 10 Limited	Ordinary Shares	100	20 Gracechurch (General Partner) Limited	General Partner	100
Aviva Investors GR SPV 11 Limited	Ordinary Shares	100	20 Gracechurch Limited Partnership	Limited Partnership	100
Aviva Investors GR SPV 12 Limited	Ordinary Shares	100	20 Lowndes Square Management Company	A Shares, B Shares	100
Aviva Investors GR SPV 13 Limited	Ordinary Shares	100	2-10 Mortimer Street (GP No 1) Limited ²	Ordinary Shares	50
Aviva Investors GR SPV 14 Limited	Ordinary Shares	100	2-10 Mortimer Street GP Limited ²	Ordinary Shares	50
Aviva Investors GR SPV 15 Limited	Ordinary Shares	100	2-10 Mortimer Street Limited Partnership ²	Limited Partnership	50
Aviva Investors GR SPV 16 Limited	Ordinary Shares	100	30 Warwick Street LP ²	Limited Partnership	50
Aviva Investors GR SPV 17 Limited	Ordinary Shares	100	30 Warwick Street Nominee 1 Limited ²	Ordinary Shares	50
East Farmhouse, Cams Hall Estate, Fareham, PO16 8UT			30 Warwick Street Nominee 2 Limited ²	Ordinary Shares	50
IQUO Limited	Ordinary A Shares	67	30-31 Golden Square LP ²	Limited Partnership	50
Exchange House, Primrose Street, EC2A 2HS			30-31 Golden Square Nominee 1 Limited ²	Ordinary Shares	50
BMO European Growth & Income Fund	SICAV	79	30-31 Golden Square Nominee 2 Limited ²	Ordinary Shares	50
BMO MM Navigator Balanced Fund	OEIC	20	41-42 Lowndes Square Management Company Limited	Ordinary Shares	100
F&C European Capital Partners	Private Equity	30	43 Lowndes Square Management Company Limited	Ordinary Shares	100
Nations House, 3rd Floor, 103 Wigmore Street, London, W1U 1WH			44-49 Lowndes Square Management Company Limited	Ordinary Shares	100
Cannock Designer Outlet (GP Holdings) Limited	Ordinary Shares	100	6-10 Lowndes Square Management Company Limited	Ordinary Shares	100
Cannock Designer Outlet (GP) Limited	Ordinary Shares	100	AI Special PFI SPV Limited	Ordinary Shares	100
Cannock Designer Outlet (Nominee 1) Limited	Ordinary Shares	100	Ascot Real Estate Investments LP ²	Limited Partnership	50
Cannock Designer Outlet (Nominee 2) Limited	Ordinary Shares	100	Ascot Real Estate Investments GP LLP ²	Limited Partnership	50
Pitheavlis, Perth, Perthshire, PH2 0NH			Atlas Park Management Company Limited	Limited By Guarantee	100
Aviva (Peak No.1) UK Limited	Ordinary Shares	100	Aviva Brands Limited	Ordinary Shares	100
Aviva Insurance Limited	Ordinary Shares	100	Aviva Commercial Finance Limited	Ordinary Shares	100
Aviva Investors (FP) Limited	Ordinary Shares	100	Aviva Company Secretarial Services Limited	Ordinary Shares	100
Aviva Investors (GP) Scotland Limited	Ordinary Shares	100	Aviva Credit Services UK Limited	Ordinary Shares	100
Pixham End, Dorking, Surrey, RH4 1QA			Aviva Employment Services Limited	Ordinary Shares	100
Aviva Administration Limited	Ordinary Shares	100	Aviva Europe SE	Ordinary Shares	92
Aviva Investment Solutions UK Limited	Ordinary Shares	100	Aviva Insurance Services UK Limited	Ordinary Shares	100
Aviva Management Services UK Limited	Ordinary Shares	100	Aviva International Holdings Limited	Ordinary Shares	100
Bankhall Support Services Limited	Ordinary Shares	100	Aviva International Insurance Limited	Ordinary Shares	100
DBS Financial Management Limited	Ordinary Shares	100	Aviva Investors 30 70 Global Eq Ccy Hedged Ind Fund	ACS	100
DBS Management Limited	Ordinary Shares	100	Aviva Investors 40 60 Global Equity Index Fund	ACS	100
Friends AEL Trustees Limited	Ordinary Shares	100	Aviva Investors 50 50 Global Equity Index Fund	ACS	100
Friends AELLAS Limited	Ordinary Shares	100	Aviva Investors 60 40 Global Equity Index Fund	ACS	100
Friends AELRIS Limited	£1 Stock Shares	100			
Friends Life and Pensions Limited	Ordinary Shares	100			
Friends Life Assurance Society Limited	Ordinary Shares	100			

Notes to the consolidated financial statements > [Continued](#)

Company name	Share Class ¹	% held	Company name	Share Class ¹	% held
Aviva Investors Asia Pacific ex Japan Fund	ACS	100	Aviva Investors Realm Infrastructure No.2 Limited	Ordinary Shares	100
Aviva Investors Asia Pacific Property Fund	OEIC	80	Aviva Investors Realm Infrastructure No.3 Limited	Ordinary Shares	100
Aviva Investors Balanced Life Fund	ACS	100	Aviva Investors Realm Infrastructure No.4A Limited	Ordinary Shares	100
Aviva Investors Balanced Pension Fund	ACS	100	Aviva Investors Realm Infrastructure No.4B Limited	Ordinary Shares	100
Aviva Investors Cash Fund	OEIC	56	Aviva Investors Social Housing GP Limited	Ordinary Shares	100
Aviva Investors Cautious Pension Fund	ACS	100	Aviva Investors Social Housing Limited	Company Limited by Guarantee	100
Aviva Investors Commercial Assets Nominee Limited	Ordinary Shares	100	Aviva Investors Sterling Corporate Bond Fund	ACS	100
Aviva Investors Commercial Assets GP Limited	Ordinary Shares	100	Aviva Investors Sterling Gilt Fund	ACS	100
Aviva Investors Continental Euro Equity Index Fund	ACS	100	Aviva Investors Stewardship Fixed Interest Fund	ACS	100
Aviva Investors Continental European Eq Alpha Fund	ACS	100	Aviva Investors Stewardship International Equity Fund	ACS	100
Aviva Investors Corporate Bond Fund	OEIC	93	Aviva Investors Stewardship UK Equity Fund	ACS	100
Aviva Investors Dev Asia Pacific Ex Japan Eq Ind Fund	ACS	100	Aviva Investors Stewardship UK Equity Income Fund	ACS	100
Aviva Investors Dev Euro Ex UK Equity Index Fund	ACS	100	Aviva Investors Strategic Bond Fund	OEIC	41
Aviva Investors Dev World Ex UK Equity Index Fund	ACS	100	Aviva Investors Strategic Global Equity Fund	ACS	100
Aviva Investors Developd Overseas Gov Bd Ex UK Ind Fund	ACS	100	Aviva Investors UK Commercial Real Estate Senior Debt LP	Limited Partnership	21
Aviva Investors Distribution Life Fund	ACS	100	Aviva Investors UK CRESO GP Limited	Ordinary Shares	100
Aviva Investors EBC GP Limited	Ordinary Shares	100	Aviva Investors UK Eq Ex Aviva Inv Trusts Index Fund	ACS	100
Aviva Investors EBC Limited Partnership	Limited Partnership	100	Aviva Investors UK Equity Alpha Fund	ACS	100
Aviva Investors Employment Services Limited	Ordinary Shares	100	Aviva Investors UK Equity Income Fund	ACS	100
Aviva Investors Europe Equity ex UK Fund	ACS	100	Aviva Investors UK Equity Income Fund	OEIC	51
Aviva Investors European Property Fund	OEIC	73	Aviva Investors UK Equity Index Fund	ACS	100
Aviva Investors Global Equity Alpha Fund	ACS	100	Aviva Investors UK Equity MoM 1 Fund	OEIC	87
Aviva Investors Global Equity Fund	ACS	100	Aviva Investors UK Fund Services Limited	Ordinary Shares	100
Aviva Investors Global Equity Income Fund	OEIC	81	Aviva Investors UK Funds Limited	Ordinary Shares	100
Aviva Investors Global Services Limited	Ordinary Shares	100	Aviva Investors UK Gilts All Stocks Index Fund	ACS	100
Aviva Investors Ground Rent GP Limited	Ordinary Shares	100	Aviva Investors UK Gilts Over 15 Years Index Fund	ACS	100
Aviva Investors Ground Rent Holdco Limited	Ordinary Shares	100	Aviva Investors UK Gilts Upto 5 Years Index Fund		
Aviva Investors Holdings Limited	Ordinary Shares	100			
Aviva Investors Idx-Lkd Gilts Ovr 5 Yrs Idx Fund	ACS	100	Aviva Investors UK Index Tracking Fund	ACS	100
Aviva Investors Index Linked Gilt Fund	ACS	100		OEIC	68
Aviva Investors Infrastructure GP Limited	Ordinary Shares	100	Aviva Investors UK Nominees Limited	Ordinary Shares	100
Aviva Investors Infrastructure Income Midco 6.1 Limited	Ordinary Shares	59	Aviva Investors UK Opportunities Fund	OEIC	95
Aviva Investors Infrastructure Income No.6B Limited	Ordinary Shares	59	Aviva Investors US Equity Index Fund	ACS	100
Aviva Investors International Index Tracking Fund	OEIC	45	Aviva Investors US Large Cap Equity Fund	ACS	100
Aviva Investors Japan Equity Alpha Fund			Aviva Overseas Holdings Limited	Ordinary Shares	100
	ACS	100	Aviva Public Private Finance Limited	Ordinary Shares	100
Aviva Investors Japan Equity Fund	ACS	100	Aviva Special PFI GP Limited	Ordinary Shares	100
Aviva Investors Japan Equity MoM 1 Fund	OEIC	73	Aviva Special PFI LP	Limited Partnership	95
Aviva Investors Japanese Equity Index Fund	ACS	100	Aviva Staff Pension Trustee Limited	Ordinary Shares	100
Aviva Investors London Limited	Ordinary Shares	100	Aviva UK Digital Limited	Ordinary Shares	100
Aviva Investors Managed High Income Fund	OEIC	63	Aviva UKLAP De-risking Limited	Ordinary Shares	100
Aviva Investors Money Market VNAV Fund	ACS	100	Access 10 Management Company Limited	Limited By Guarantee	100
Aviva Investors Multi-Asset 40 85 Shares Index Fund	ACS	100	Barratt House LP ²	Limited Partnership	50
Aviva Investors Multi-Asset III Fund	OEIC	50	Barratt House Nominee 1 Limited ²	Ordinary Shares	50
Aviva Investors Multi-Asset IV Fund	OEIC	41	Barratt House Nominee 2 Limited ²	Ordinary Shares	50
Aviva Investors Multi-Manager 20-60% Shares Fund	OEIC	74	Barwell Business Park Nominee Limited	Ordinary Shares	100
Aviva Investors Multi-Manager 40-85% Shares Fund	OEIC	70	BIOMASS UK NO. 3 Limited	Ordinary A Shares	100
Aviva Investors Multi-Manager Flexible Fund	OEIC	81		Deferred Shares	
Aviva Investors Multi-Strategy Target Income Fund	OEIC	82	Biomass UK NO.1 LLP	Limited Liability Partnership	100
Aviva Investors Multi-Strategy Target Return Fund	OEIC	47	Biomass UK NO.2 Limited	'A Shares	
Aviva Investors Non-Gilt Bond All Stocks Index Fund	ACS	100		B Shares	
Aviva Investors Non-Gilt Bond Over 15 Yrs Index Fund	ACS	100		C Shares	100
Aviva Investors Non-Gilt Bond Up To 5 Years Index Fund	ACS	100		Deferred Shares ¹	
Aviva Investors North American Equity Fund	ACS	100	Boston Biomass Limited	Ordinary Shares	100
Aviva Investors North American Equity Index Fund	ACS	100	Boston Wood Recovery Limited	Ordinary Shares	100
Aviva Investors Pacific Ex-Japan Equity Index Fund	ACS	100	Capital Residential Fund	Unit Trust	88
	ACS	100	Capital Residential Fund Nominee No.1 Limited	Ordinary Shares	100
Aviva Investors Pensions Limited	Ordinary Shares	100	Capital Residential Fund Nominee No.2 Limited		
Aviva Investors Polish Retail GP Limited	Ordinary Shares	100		Ordinary Shares	100
Aviva Investors Polish Retail Limited Partnership	Limited Partnership	100	Cardiff Bay Gp Limited	Ordinary Shares	100
Aviva Investors Pre-Annuity Fixed Interest Fund	ACS	100	Cardiff Bay Limited Partnership	Limited Partnership	100
Aviva Investors Private Equity Programme 2008 Partnership	Limited Partnership	40	CGU International Holdings BV	Ordinary Shares	100
Aviva Investors Property Fund Management Limited	Ordinary Shares	100	Chancery House London LP ²	Limited Partnership	50
Aviva Investors Real Estate Finance Limited	Ordinary Shares	100	Chancery House London Nominee 1 Limited ²	Ordinary Shares	50
Aviva Investors Real Estate Limited	Ordinary Shares	100	Chancery House London Nominee 2 Limited ²	Ordinary Shares	50
Aviva Investors Realm Energy Centres GP Limited	Ordinary Shares	100	Chesterford Park ²	Limited Partnership	50
Aviva Investors ReaLM Energy Centres No.1 LP	Limited Partnership	100	Chesterford Park (General Partner) Limited ²	Ordinary Shares	100
	Ordinary Shares	100	Chesterford Park (Nominee) Limited ²	Ordinary Shares	100
Aviva Investors Realm Infrastructure No.1 Limited	Ordinary Shares	100	Chichester Health (Holdings) Limited	Ordinary Shares	100
			Commercial Union Corporate Member Limited	Ordinary Shares	100
			Commercial Union Life Assurance Company Limited	Ordinary Shares	100
			Commercial Union Trustees Limited	Ordinary Shares	100
			Cornerford Limited	Ordinary Shares	100
			COW Real Estate Investment General Partner Limited	Ordinary Shares	100
			COW Real Estate Investment Limited Partnership	Limited Partnership	100
			COW Real Estate Investment Nominee Limited	Ordinary Shares	100
			EES Operations 1 Limited	Ordinary Shares	100

Company name	Share Class ¹	% held	Company name	Share Class ¹	% held
Fitzroy Place GP 2 Limited ²	Ordinary Shares	50	Southgate Limited Partnership	Limited Partnership	50
Fitzroy Place Management Co Limited ²	Ordinary Shares	50	Southgate LP (Nominee 1) Limited	Ordinary Shares	50
Fitzroy Place Residential Limited ²	Ordinary Shares	50	Southgate LP (Nominee 2) Limited	Ordinary Shares	50
Free Solar (Stage 2) Limited	Ordinary Shares	100	Stonebridge Cross Management Company Limited	Limited By Guarantee	100
Free Solar Holdco Limited	Ordinary Shares	100	Stonebridge Cross Management Limited	Limited By Guarantee	100
Friends Life Funds Limited	Ordinary Shares	100	SUE Developments Limited Partnership ²	Limited Partnership	50
General Accident Executor and Trustee Company Limited	Ordinary Shares	100	SUE GP LLP ²	Ordinary Shares	50
Gobafoss General Partner Limited	Ordinary Shares	100	SUE GP Nominee Limited ²	Ordinary Shares	50
Gobafoss Partnership Nominee No 1 Ltd	Ordinary Shares	100	Sunrise Renewables (Barry) Limited	Ordinary Shares	100
Hemel Hempstead Estate Management Limited	Ordinary Shares	100	Swan Valley Management Limited	Ordinary Shares	100
Hillwood Management Limited	Ordinary Shares	24	The Designer Retail Outlet Centres (General Partner) Limited	Ordinary A Shares	50
Hooton Bio Power Limited	Ordinary Shares	56	The Designer Retail Outlet Centres (Mansfield) General Partner Limited	Ordinary Shares	100
Houlton Commercial Management Company Limited	Limited By Guarantee	50	The Designer Retail Outlet Centres (Mansfield) LP	Limited Partnership	97
Igloo Regeneration (Butcher Street) Limited ²	Ordinary Shares	50	The Designer Retail Outlet Centres (York) General Partner Limited	Ordinary Shares	100
Igloo Regeneration (General Partner) Limited ²	Ordinary Shares	50	The Designer Retail Outlet Centres (York) LP	Limited Partnership	97
Igloo Regeneration (Nominee) Limited ²	Ordinary Shares	50	The Gobafoss Partnership	Limited Partnership	100
Igloo Regeneration Developments (General Partner) Limited ²	Ordinary Shares	50	The Ocean Marine Insurance Company Limited	Ordinary Shares	100
Igloo Regeneration Developments (Nominees) Limited ²	Ordinary Shares	50	The Square Brighton Limited	Ordinary Shares	100
Igloo Regeneration Developments LP ²	Limited Partnership	50	Tyne Assets (No 2) Limited	Ordinary Shares	100
Igloo Regeneration Partnership ²	Limited Partnership	40	Tyne Assets Limited	Ordinary Shares	100
Igloo Regeneration Property Unit Trust ²	Unit Trust	50	Undershaft Limited	Ordinary Shares	100
IPE BV	Ordinary Shares	100	W Nine LP ²	Limited Partnership	50
Irongate House LP ²	Limited Partnership	50	W Nine Nominee 1 Limited ²	Ordinary Shares	50
Irongate House Nominee 1 Limited ²	Ordinary Shares	50	W Nine Nominee 2 Limited ²	Ordinary Shares	50
Irongate House Nominee 2 Limited ²	Ordinary Shares	50	The Welsh Insurance Corporation Limited	Ordinary Shares	100
Lime Property Fund (General Partner) Limited	Ordinary Shares	100	The Yorkshire Insurance Company Limited	Ordinary Shares	100
Lime Property Fund (Nominee) Limited	Ordinary Shares	100	Aviva Investors UK Equity Dividend Fund	Collective Investment Scheme	100
Lombard (London) 1 Limited	Ordinary Shares	100	Chichester Health plc	Ordinary Shares	100
Lombard (London) 2 Limited	Ordinary Shares	100	Aviva Investors Energy Centres No.1 GP Limited	Ordinary Shares	100
LUC Holdings Limited	Ordinary Shares	20	Swan Court Waterman's Business Park, Kingsbury Crescent, Staines, Surrey, TW18 3BA		
Matthew Parker Street (Nominee No 1) Limited	Ordinary Shares	100	Healthcode Limited	Ordinary C Shares, Ordinary E Shares	20
Matthew Parker Street (Nominee No 2) Limited	Ordinary Shares	100	The Green, Easter Park, Benyon Road, Reading, Berkshire, RG7 2PQ		
Medium Scale Wind No.1 Limited	Ordinary Shares	100	Anesco Mid Devon Limited	Ordinary Shares	100
Mortimer Street Associated Co 1 Limited ²	Ordinary Shares	50	Anesco South West Limited	Ordinary Shares	100
Mortimer Street Associated Co 2 Limited ²	Ordinary Shares	50	Free Solar (Stage 1) Limited	Ordinary Shares	100
Mortimer Street Nominee 1 Limited ²	Ordinary Shares	50	New Energy Residential Solar Limited	Ordinary Shares	100
Mortimer Street Nominee 2 Limited ²	Ordinary Shares	50	Norton Energy SLS Limited	Ordinary Shares	100
Mortimer Street Nominee 3 Limited ²	Ordinary Shares	50	TGHC Limited	Ordinary Shares	100
New Broad Street House LP ²	Limited Partnership	50	Wellington Row, York, YO90 1WR		
New Broad Street House Nominee 1 Limited ²	Ordinary Shares	50	Aviva (Peak No.2) UK Limited	Ordinary Shares	100
New Broad Street House Nominee 2 Limited ²	Ordinary Shares	50	Aviva Annuity UK Limited	Ordinary Shares	100
Norwich Union (Shareholder GP) Limited	Ordinary Shares	100	Aviva Client Nominees UK Limited	Ordinary Shares	100
Norwich Union Public Private Partnership Fund	Limited Partnership	100	Aviva Equity Release UK Limited	Ordinary Shares	100
NU 3PS Limited	Ordinary Shares	100	Aviva ERFA 15 UK Limited	Ordinary Shares	100
NU Library For Brighton Limited	Ordinary Shares	100	Aviva Life & Pensions UK Limited	Ordinary Shares	100
NU Offices for Redcar Limited	Ordinary Shares	100	Aviva Life Holdings UK Limited	Ordinary Shares	100
NU Schools for Redbridge Limited	Ordinary Shares	100	Aviva Life Investments International (Recovery) Limited	Ordinary Shares	100
NU Technology and Learning Centres (Hackney) Limited	Ordinary Shares	100	Aviva Life Services UK Limited	Ordinary Shares	100
NUPPP (Care Technology and Learning Centres) Limited	Ordinary Shares	100	Aviva Pension Trustees UK Limited	Ordinary Shares	100
NUPPP (GP) Limited	Ordinary Shares	100	Aviva Trustees UK Limited	Ordinary Shares	100
NUPPP Nominees Limited	Ordinary Shares	100	Aviva Wrap UK Limited	Ordinary Shares	100
Opus Park Management Limited	Limited By Guarantee	100	CGNU Life Assurance Limited	Ordinary Shares	100
Opus Park Management Limited	Limited Partnership	100	Friends Provident Pension Scheme Trustees Limited	Ordinary Shares	100
ORN Capital Services Limited	Ordinary Shares	100	The Lancashire and Yorkshire Reversionary Interest Company Limited	Ordinary Shares	100
Paddington Central III GP Ltd	Ordinary Shares	100	The Norwich Union Life Insurance Company Limited	Ordinary Shares	100
Paddington Central III Limited Partnership	Limited Partnership	100	Synergy Sunrise (Sentinel House) Limited	Ordinary Shares	100
Pegasus House and Nuffield House LP ²	Limited Partnership	50	Undershaft (NULLA) Limited	Ordinary Shares	100
Pegasus House and Nuffield House Nominee 1 Limited ²	Ordinary Shares	50	Whittington Hall, Whittington Road, Worcester, Worcestershire, WR5 2ZX		
Pegasus House and Nuffield House Nominee 2 Limited ²	Ordinary Shares	50	Aviva Investors GR SPV16 Limited	Ordinary Shares	100
Porth Teigr Management Company Limited ²	Ordinary Shares	50	61 Conduit Street London W1S 2GB		
Property Management Company (Croydon) Ltd	Ordinary Shares	100	AKO Global UCITS-BF (AKOGUBF)	Mutual Fund	73
Quantum Property Partnership ²	Limited Partnership	50	12 Throgmorton Avenue		
Quarryvale One Limited	Ordinary Shares	100	BlackRock US Dynamic Fund	Unit Trust	21
Quarryvale Three Limited	Ordinary Shares	100	BlackRock Market Advantage Fund	Unit Trust	52
Renewable Clean Energy Limited	Ordinary Shares	100	Artemis Fund Managers Limited, 57-59 St James's Street, London SW1A 1LD		
Rugby Radio Station (General Partner) Limited ²	Ordinary B Shares	50	Artemis UK Special Situations Fund	Unit Trust	22
Rugby Radio Station (Nominee) Limited ²	Ordinary Shares	50	Liontrust Fund Partners LLP, 2 Savoy Court London WC2R 0EZ		
Rugby Radio Station Limited Partnership ²	Limited Partnership	50	Liontrust Sustainable Future Corporate Bond Fund	OEIC	40
SE11 PEP Limited	Ordinary Shares	100	Liontrust Sustainable Future UK Growth Fund	OEIC	49
Serviced Offices UK (Services) Limited ²	Ordinary Shares	50			
Serviced Offices UK GP Limited ²	Ordinary Shares	50			
Serviced Offices UK Limited Partnership ²	Limited Partnership	50			
Serviced Offices UK Nominee Limited ²	Ordinary Shares	50			
Solar Clean Energy Limited	Ordinary Shares	100			
Southgate General Partner Limited	Ordinary A Shares	50			

Company name	Share Class ¹	% held
Liontrust Sustainable Future European Growth Fund	OEIC	52
Liontrust Sustainable Future Global Growth Fund	OEIC	54
Liontrust Sustainable Future Absolute Growth Fund	OEIC	64
Liontrust UK Ethical Fund	OEIC	72
Liontrust Sustainable Future Managed Fund	OEIC	76
1 London Wall Place, London, UK		
Schroder QEP US Core Fund	Unit Trust	40
BlackRock Pensions, 33 King William Street		
Undrly Aquila Cnt CcyH Glb Eq108010 2L	OEIC	65
c/o Harper MacLeod LLP		
The Cadoro, 45 Gordon Street		
United Kingdom G1 3PE		
Brockloch Rig Windfarm Limited	Ordinary Shares	49
Crystal Rig III Limited	Ordinary Shares	49
Old Bourchiers Hall New Road		
Aldham, Essex		
United Kingdom C06 3QU		
County Broadband Holdings Limited	A Ordinary Shares Shares B Ordinary Shares	59
2nd Floor, 64-65 Vincent Square		
United Kingdom SW1P 2NU		
Fred. Olsen CBH Limited	Ordinary Shares	49
Midlands House 4 Rock Road		
Keynsham, England		
United Kingdom BS31 1BL		
Truespeed Communications LTD	B Ordinary Shares C Ordinary Shares Ordinary Shares Ordinary Shares D1	26

- 1 Investment Company with Variable Capital ('ICVC')
Fond Commun de Placement ('FCP')
Open Ended Investment Fund ('OEIC')
Société d'Investment à Capital Variable ('SICAV')
Undertaking for Collective Investment in Transferable Securities ('UCITS')
Irish Collective Asset Management Vehicle ('ICAV')
Authorised Contractual Scheme ('ACS')
Organisme de Placement Collectif Immobilier ('OPCI')
Sociétés Civiles de Placement Immobilier ('SCPI')

- 2 Please see accounting policies (D) Consolidation principles, for further details on Joint Ventures and the factors on which joint management is based.

Company name	Share Class ¹	% held
Tec Marina Terra Nova Way	Redeemable E1	
Penarth, Wales		
United Kingdom CF64 1SA		
Wealthify Group Limited	A Ordinary Shares B Ordinary Shares	60
Wealthify Limited	Ordinary Shares	60
Pitheavlis, PERTH, Perthshire, PH2 0NH, United Kingdom		
Aviva Investors (FP) LP	Limited Partnership	100
United States		
1209 Orange Street, City of Wilmington		
DE 19801,		
Aviva Investors Americas LLC	Sole Member	100
2222 Grand Avenue, Des Moines IA 50312		
Aviva Investors North America Holdings, Inc	Common Stock Of No Par Value Shares	100
2711 Centreville Road, Suite 400, Wilmington, New Castle, DE, 19808		
UKP Holdings Inc.	Common Stock Shares	100
AI-RECAP GP I, LLC	Limited Partnership	100
National Corporate Research Limited, 850 New Burton Road, Suite 201, Dover, Delaware Kent County 19904		
Exeter Properties Inc.	Common Stock WpV Shares	95
Winslade Investments Inc.	Common Stock WpV Shares	100
Vietnam		
10th Floor, Handi Resco Building, No. 521 Kim Ma, Ba Dinh, Hanoi		
Aviva Vietnam Life Insurance Company Limited	Non-Listed Shares	90

65 – Subsequent events

For details of subsequent events relating to:

- Acquisitions – refer to note 3

[Financial statements of the Company](#)

Income statement

For the year ended 31 December 2018

	Note	2018 £m	2017 £m
Income			
Net investment income	B	2,874	1,856
		2,874	1,856
Expenses			
Operating expenses	C	(246)	(217)
Other expenses ¹		(8)	—
Finance costs	D	(519)	(527)
		(773)	(744)
Profit for the year before tax		2,101	1,112
Tax credit	E	96	113
Profit for the year after tax		2,197	1,225

¹ Other expenses include a charge of £8 million relating to goodwill payments to preference shareholders, which was announced on 30 April 2018, and associated administration costs (see note 35).

Statement of comprehensive income

For the year ended 31 December 2018

	Note	2018 £m	2017 restated ¹ £m
Profit for the year		2,197	1,225
Items that will not be reclassified to income statement			
Remeasurements of pension schemes	I	2	(2)
Forfeited dividend income	I	4	—
Other comprehensive income/(loss), net of tax		6	(2)
Total comprehensive income for the year		2,203	1,223

¹ The Company has made a change in accounting policy whereby investments in subsidiaries and joint ventures held as available for sale investments under IAS 39 have been reclassified to being held at cost under IAS 27. As a result, comparatives have been restated. See note A for further details.

Where applicable, the accounting policies of the Company are the same as those of the Group on pages 102 to 115. The notes identified alphabetically on pages 246 to 252 are an integral part of these separate financial statements. Where the same items appear in the Group financial statements, reference is made to the notes (identified numerically) on pages 123 to 241.

Statement of changes in equity

For the year ended 31 December 2018

	Note	Ordinary share capital £m	Preference share capital £m	Share premium £m	Capital redemption Reserve £m	Merger reserve £m	Equity compensation reserve £m	Retained earnings £m	Direct capital instrument and fixed rate tier 1 notes £m	Total equity £m
Balance at 1 January (restated)¹		1,003	200	1,207	14	6,438	111	3,555	724	13,252
Profit for the year		—	—	—	—	—	—	2,197	—	2,197
Other comprehensive income		—	—	—	—	—	—	6	—	6
Total comprehensive income for the year		—	—	—	—	—	—	2,203	—	2,203
Dividends and appropriations	16	—	—	—	—	—	—	(1,189)	—	(1,189)
Reserves credit for equity compensation plans	33	—	—	—	—	—	64	—	—	64
Shares issued under equity compensation plans	32	2	—	7	—	—	(55)	49	—	3
Shares purchased in buy-back	32	(30)	—	—	30	—	—	(600)	—	(600)
Redemption of fixed rate tier 1 notes	36, I	—	—	—	—	—	—	—	—	—
Aggregate tax effect	E	—	—	—	—	—	—	8	—	8
Balance at 31 December		975	200	1,214	44	6,438	120	4,026	724	13,741

For the year ended 31 December 2017 (restated)¹

	Note	Ordinary share capital £m	Preference share capital £m	Share premium £m	Capital redemption Reserve £m	Merger reserve £m	Equity compensation reserve £m	Retained earnings £m	Direct capital instrument and fixed rate tier 1 notes £m	Total equity £m
Balance at 1 January		1,015	200	1,197	—	6,438	78	3,747	1,116	13,791
Profit for the year		—	—	—	—	—	—	1,225	—	1,225
Other comprehensive loss		—	—	—	—	—	—	(2)	—	(2)
Total comprehensive income for the year		—	—	—	—	—	—	1,223	—	1,223
Dividends and appropriations	16	—	—	—	—	—	—	(1,081)	—	(1,081)
Reserves credit for equity compensation plans	33	—	—	—	—	—	77	—	—	77
Shares issued under equity compensation plans	32	2	—	10	—	—	(44)	42	—	10
Shares purchased in buy-back	32	(14)	—	—	14	—	—	(300)	—	(300)
Redemption of fixed rate tier 1 notes	36, I	—	—	—	—	—	—	(92)	(392)	(484)
Aggregate tax effect	E	—	—	—	—	—	—	16	—	16
Balance at 31 December		1,003	200	1,207	14	6,438	111	3,555	724	13,252

¹ The Company has made a change in accounting policy whereby investments in subsidiaries and joint ventures held as available for sale investments under IAS 39 have been reclassified to being held at cost under IAS 27. As a result, comparatives have been restated. See note A for further details.

Where applicable, the accounting policies of the Company are the same as those of the Group on pages 102 to 115. The notes identified alphabetically on pages 246 to 252 are an integral part of these separate financial statements. Where the same items appear in the Group financial statements, reference is made to the notes (identified numerically) on pages 123 to 241.

Statement of financial position

As at 31 December 2018

	Note	2018 £m	2017 restated ¹ £m	1 January 2017 restated ¹ £m
Assets				
Non-current assets				
Investments in subsidiaries	F	31,788	31,788	31,788
Investment in joint venture	F	123	123	123
Receivables and other financial assets	G	5,401	3,680	5,941
Deferred tax assets	H	9	9	156
Current tax assets	H	89	255	135
		37,410	35,855	38,143
Current assets				
Receivables and other financial assets	G	414	2,028	321
Prepayments and accrued income		10	9	11
Cash and cash equivalents		15	87	82
Total assets		37,849	37,979	38,557
Equity				
Ordinary share capital	32	975	1,003	1,015
Preference share capital	35	200	200	200
Called up capital		1,175	1,203	1,215
Share premium	32(b)	1,214	1,207	1,197
Capital redemption reserve	32(b)	44	14	—
Merger reserve	I	6,438	6,438	6,438
Equity compensation reserve	I	120	111	78
Retained earnings	I	4,026	3,555	3,747
Direct capital instrument and tier 1 notes	36,M	724	724	1,116
Total equity		13,741	13,252	13,791
Liabilities				
Non-current liabilities				
Borrowings	K	6,699	6,450	6,638
Payables and other financial liabilities	L	12,815	9,900	13,098
Tax liabilities	H	—	—	4
Pension deficits and other provisions	J	45	48	42
		19,559	16,398	19,782
Current liabilities				
Borrowings	K	251	978	642
Payables and other financial liabilities	L	4,206	7,192	4,198
Pension deficits and other provisions	J	—	5	5
Other liabilities		92	154	139
Total liabilities		24,108	24,727	24,766
Total equity and liabilities		37,849	37,979	38,557

¹ The Company has made a change in accounting policy whereby investments in subsidiaries and joint ventures held as available for sale investments under IAS 39 have been reclassified to being held at cost under IAS 27. As a result, comparatives have been restated. See note A for further details.

Approved by the Board on 6 March 2019

Thomas D. Stoddard

Chief Financial Officer

Where applicable, the accounting policies of the Company are the same as those of the Group on pages 102 to 115. The notes identified alphabetically on pages 246 to 252 are an integral part of these separate financial statements. Where the same items appear in the Group financial statements, reference is made to the notes (identified numerically) on pages 123 to 241.

Statement of cash flows

For the year ended 31 December 2018

All the Company's operating cash requirements are met by subsidiary companies and settled through intercompany loan accounts. As the direct method of presentation has been adopted for these activities, no further disclosure is required. In respect of financing and investing activities, the following items pass through the Company's own bank accounts.

	2018 £m	2017 £m
Cash flows from financing activities		
Shares purchased in buy-back	(600)	(300)
Treasury shares purchased for employee trusts	(4)	—
Funding provided from subsidiaries	2,564	2,365
Repayment of loans owed to subsidiaries	—	(156)
New borrowings drawn down, net of expenses	3,023	1,265
Repayment of borrowings	(3,536)	(1,753)
Net repayment of borrowings ¹	(513)	(488)
Preference dividends paid	(17)	(17)
Ordinary dividends paid	(1,128)	(983)
Forfeited dividend income	4	—
Coupon payments on direct capital instrument and tier 1 notes	(44)	(81)
Interest paid on borrowings	(335)	(346)
Proceeds from issue of ordinary shares	8	10
Other ²	(13)	—
Net cash (used in)/generated from financing activities	(78)	4
Net (decrease)/increase in cash and cash equivalents	(78)	4
Cash and cash equivalents at 1 January	87	82
Exchange gains on cash and cash equivalents	6	1
Cash and cash equivalents at 31 December	15	87

1 On 28 September 2017, notification was given that the Group would redeem the \$650 million fixed rate tier 1 notes. At that date, the instrument was reclassified as a financial liability of £484 million, representing its fair value on translation into Sterling at that date. On 3 November 2017 the instrument was redeemed in full at a cost of £488 million. This included £4 million exchange losses subsequent to the reclassification which are included within other operating costs within the income statement.

2 Includes £10 million relating to goodwill payments to preference shareholders, which was announced on 30 April 2018, and associated administration costs (see note 35) and a £3 million donation of forfeited dividend income to a charitable foundation.

Where applicable, the accounting policies of the Company are the same as those of the Group on pages 102 to 115. The notes identified alphabetically on pages 246 to 252 are an integral part of these separate financial statements. Where the same items appear in the Group financial statements, reference is made to the notes (identified numerically) on pages 123 to 241.

[Notes to the financial statements of the Company](#)

A – Changes in accounting policies

The Company has made a change in accounting policy whereby investments in subsidiaries and joint ventures held as available for sale investments under IAS 39 have been reclassified to being held at cost under IAS 27. As per Group accounting policy D, investments in subsidiaries, associates and joint ventures are recognised at cost less impairment. Investments are reviewed annually to test whether any indicators of impairment exist. Where there is objective evidence that such an asset is impaired, the investment is impaired to its recoverable value and any unrealised loss is recorded in the income statement. The revised policy provides more relevant and reliable information as reserves are better aligned with distributable profits and cost is a factual measure which is complete, neutral and requires less judgement.

The impact of the changes on the affected line items in the financial statements is set out below.

(i) Impact of changes on income statement

There is no impact on the Company's income statement.

(ii) Impact of changes on statement of comprehensive income

	31 December 2017		
	As reported £m	Effect of changes £m	Restated £m
Profit for the year	1,225	—	1,225
Other comprehensive income	705	(707)	(2)
Effect analysed as:			
Fair value gains on investments in subsidiaries and joint ventures	707	(707)	—
Remeasurements of pension schemes	(2)	—	(2)
Total comprehensive income for the year	1,930	(707)	1,223

(iii) Impact of changes on statement of financial position

	31 December 2017			1 January 2017		
	As reported £m	Effect of changes £m	Restated £m	As reported £m	Effect of changes £m	Restated £m
Total assets	47,807	(9,828)	37,979	47,678	(9,121)	38,557
Effect analysed as:						
Investment in subsidiaries	41,192	(9,404)	31,788	40,521	(8,733)	31,788
Investment in joint venture	547	(424)	123	511	(388)	123
Total equity and liabilities	47,807	(9,828)	37,979	47,678	(9,121)	38,557
Total equity	23,080	(9,828)	13,252	22,912	(9,121)	13,791
Effect analysed as:						
Investment valuation reserve	9,828	(9,828)	—	9,121	(9,121)	—
Total Liabilities	24,727	—	24,727	24,766	—	24,766

B – Net investment income

	Note	2018 £m	2017 £m
Dividends received from subsidiaries	P(iii)	2,780	1,740
Interest receivable from group company loans held at amortised cost	P(i)	92	116
Other income		2	—
Total		2,874	1,856

C – Operating expenses

(i) Operating expenses

Operating expenses comprise:

	2018 £m	2017 £m
Staff costs and other employee related expenditure (see (ii) below)	19	107
Other operating costs	227	105
Net foreign exchange losses	—	5
Total	246	217

(ii) Staff costs

Total staff costs were:

	2018 £m	2017 £m
Wages and salaries	—	54
Social security costs	—	7
Defined contribution schemes	—	8
Equity compensation plans (see (iii) below)	19	30
Termination benefits	—	8
Total	19	107

C – Operating expenses continued

(ii) Staff costs continued

The Company is no longer charged staff costs directly by the UK employing entity. Staff costs in 2018 are included within other operating costs as part of the overall recharges from the service company within the Group.

(iii) Equity compensation plans

All transactions in the Group's equity compensation plans, which involve options and awards for ordinary shares of the Company, are included in other operating costs. Full disclosure of these plans is given in the Group consolidated financial statements, note 33. The cost of such options and awards is borne by all participating businesses and, where relevant, the Company bears an appropriate charge. As the majority of the charge to the Company relates to directors' options and awards, for which full disclosure is made in the directors' remuneration report, no further disclosure is given here.

D – Finance costs

	Note	2018 £m	2017 £m
Interest payable on borrowings		325	352
Interest payable to group companies	P(ii)	194	175
Total		519	527

E – Tax

(i) Tax credited to the income statement

The total tax credit comprises:

	2018 £m	2017 £m
Current tax		
For this year	(94)	(253)
Prior year adjustments	(2)	(3)
Total current tax	(96)	(256)
Deferred tax		
Origination and reversal of temporary differences	—	143
Total deferred tax	—	143
Total tax credited to income statement	(96)	(113)

Unrecognised tax losses and temporary differences of previous years were used to reduce the deferred tax expense by £nil (2017: £nil).

(ii) Tax credited to other comprehensive income

There was no tax credited or charged to other comprehensive income in either 2018 or 2017.

(iii) Tax credited to equity

Tax credited directly to equity in the year, in respect of coupon payments on the direct capital instrument and fixed rate tier 1 notes, amounted to £8 million (2017: £16 million).

(iv) Tax reconciliation

The tax on the Company's profit before tax differs from the theoretical amount that would arise using the tax rate of the home country of the Company as follows:

	2018 £m	2017 £m
Profit before tax	2,101	1,112
Tax calculated at standard UK corporation tax rate of 19.00% (2017: 19.25%)	399	214
Reconciling items		
Adjustment to tax charge in respect of prior years	(2)	(3)
Non-assessable dividend income	(528)	(335)
Disallowable expenses	7	8
Different local basis of tax on overseas profits	—	(4)
Change in future local statutory tax rates	—	(19)
Losses surrendered intra-group for nil value	28	26
Total tax credited to income statement	(96)	(113)

Finance Act 2016, which received Royal Assent on 15 September 2016, will reduce the rate of corporation tax to 17% from 1 April 2020. The reduction in rate from 19% to 17% has been used in the calculation of the Company's deferred tax assets and liabilities at 31 December 2018.

Notes to the financial statements of the Company > [Continued](#)**F – Investments in subsidiaries and joint venture****(i) Subsidiaries**

Movements in the Company's investments in its subsidiaries are as follows:

	2018 £m	2017 restated £m
At 1 January	31,788	31,788
At 31 December	31,788	31,788

At 31 December 2018, the Company has two wholly owned subsidiaries, both incorporated in the UK. These are General Accident plc and Aviva Group Holdings Limited. Aviva Group Holdings Limited is an intermediate holding company, while General Accident plc has preference shares listed on the London Stock Exchange. The principal subsidiaries of the Aviva Group at 31 December 2018 are set out in note 63 to the Group consolidated financial statements.

(ii) Joint venture

At 31 December 2018, the Company's investment in the joint venture, Aviva-COFCO Life Insurance Co. Limited has a cost of £123 million (2017: £123 million).

G – Receivables and other financial assets

	Note	2018 £m	2017 £m
Loans due from subsidiaries held at amortised cost	P(i)	5,401	5,410
Amount due from subsidiaries held at amortised cost	P(iii)	414	298
Total		5,815	5,708
Expected to be recovered in less than one year		414	2,028
Expected to be recovered in more than one year		5,401	3,680
		5,815	5,708

Fair value of these assets approximate to their carrying amounts.

H – Tax assets and liabilities**(i) Current tax**

Current tax assets recoverable in more than one year are £89 million (2017: £255 million).

(ii) Deferred tax

(a) The balance at 31 December comprises:

	2018 £m	2017 £m
Deferred tax assets	9	9
Net deferred tax assets	9	9

(b) The net deferred tax asset arises on the following items:

	2018 £m	2017 £m
Pensions and other post retirement obligations	9	9
Net deferred tax assets	9	9

I – Reserves

	Merger reserve £m	Equity compensation reserve ¹ £m	Retained earnings £m
Balance at 1 January 2017 (restated)²	6,438	78	3,747
Arising in the year:			
Profit for the year	—	—	1,225
Remeasurements of pension schemes	—	—	(2)
Dividends and appropriations	—	—	(1,081)
Reserves credit for equity compensation plans	—	77	—
Issue of share capital under equity compensation scheme	—	(44)	42
Shares purchased in buy-back	—	—	(300)
Redemption of fixed rate tier 1 notes ³	—	—	(92)
Aggregate tax effect	—	—	16
Balance at 31 December 2017 (restated)²	6,438	111	3,555
Arising in the year:			
Profit for the year	—	—	2,197
Remeasurements	—	—	2
Forfeited dividend income ⁴	—	—	4
Dividends and appropriations	—	—	(1,189)
Reserves credit for equity compensation plans	—	64	—
Issue of share capital under equity compensation scheme	—	(55)	49
Shares purchased in buy-back	—	—	(600)
Aggregate tax effect	—	—	8
Balance at 31 December 2018	6,438	120	4,026

1 See notes 33(d) and 38 for further details of balances included in Equity compensation reserve.

2 The Company has made a change in accounting policy whereby investments in subsidiaries and joint ventures held as available for sale investments under IAS 39 have been reclassified to being held at cost under IAS 27. As a result, comparatives have been restated. See note A for further details.

3 On 28 September 2017, notification was given that the Group would redeem the 8.25% US \$650 million fixed rate tier 1 notes. At that date, the instrument was reclassified as a financial liability of £484 million, representing its fair value on translation into Sterling at that date. The resulting foreign exchange loss of £92 million has been charged to retained earnings.

4 The Company has commenced a shareholder forfeiture programme, where the shares of shareholders who Aviva has lost contact with over the last 12 years will be forfeited and sold on. Any associated unclaimed dividends will be reclaimed by the Company. After covering administration costs, the majority of the money will be put into a charitable foundation.

The tax effect of £8 million (2017: £16 million) is recognised in respect of coupon payments of £44 million (2017: £81 million) on the direct capital instrument and tier 1 notes.

J – Pension deficits and other provisions**(i) Carrying amounts**

	2018 £m	2017 £m
Total IAS 19 obligations to staff pension schemes	45	48
Other provisions	—	5
Total provisions	45	53

Other provisions primarily include amounts set aside for costs of compensation, litigation and staff entitlements.

(ii) Movements on other provisions

	2018 £m	2017 £m
At 1 January	5	—
Additional provisions	10	5
Unused amounts reversed	(2)	—
Charge to income statement	8	5
Utilised during the year	(13)	—
At 31 December	—	5

K – Borrowings

The Company's borrowings comprise:

	2018 £m	2017 £m
Subordinated debt	5,586	6,009
Senior notes	1,113	751
Commercial paper	251	668
Total	6,950	7,428

All the above borrowings are stated at amortised cost.

K – Borrowings continued

Maturity analysis of contractual undiscounted cash flows:

	2018			2017		
	Principal £m	Interest £m	Total £m	Principal £m	Interest £m	Total £m
Within 1 year	251	315	566	978	333	1,311
1 – 5 years	708	1,231	1,939	266	1,311	1,577
5 – 10 years	673	1,490	2,163	444	1,591	2,035
10 – 15 years	—	1,441	1,441	—	1,589	1,589
Over 15 years	5,365	2,923	8,288	5,791	3,282	9,073
Total contractual undiscounted cash flows	6,997	7,400	14,397	7,479	8,106	15,585

Where subordinated debt is undated, the interest payments have not been included beyond 15 years. Annual interest payments in future years for these borrowings are £49 million (2017: £49 million).

The fair value of the subordinated debt at 31 December 2018 was £5,831 million (2017: £7,046 million), calculated with reference to quoted prices. The fair value of the senior debt at 31 December 2018 was £1,113 million (2017: £756 million), calculated with reference to quoted prices. The fair value of the commercial paper is considered to be the same as its carrying value.

Further details of these borrowings and undrawn committed facilities can be found in the Group consolidated financial statements, note 52, with details of the fair value hierarchy in relation to these borrowings in note 23.

L – Payables and other financial liabilities

	Note	2018 £m	2017 £m
Loans due to subsidiaries	P(ii)	12,815	13,008
Amount due to subsidiaries	P(iii)	4,206	4,084
Total		17,021	17,092
Expected to be recovered in less than one year		4,206	7,192
Expected to be recovered in more than one year		12,815	9,900
		17,021	17,092

M – Direct capital instrument and tier 1 notes

Details of the direct capital instrument and tier 1 notes are given in the Group consolidated financial statements, note 36. The 6.875% £210 million STICS are reflected in the Company financial statements at a value of £224 million (2017: £224 million) following the transfer at fair value from Friends Life Holdings plc on 1 October 2015.

N – Contingent liabilities

Details of the Company's contingent liabilities are given in the Group consolidated financial statements, note 55.

O – Risk management

Risk management in the context of the Group is considered in the Group consolidated financial statements, note 59.

The business of the Company is managing its investments in subsidiaries and joint venture operations. Its risks are considered to be the same as those in the operations themselves, and full details of the major risks and the Group's approach to managing these are given in the Group consolidated financial statements, note 59. Such investments are held by the Company at cost in accordance with accounting policy D.

Financial assets, other than investments in subsidiaries and joint ventures, largely consist of amounts due from subsidiaries. As at the balance sheet date, these receivable amounts were neither past due nor impaired. The credit quality of receivables and other financial assets is monitored by the Company, and provisions are made for expected credit losses. There are no material expected credit losses over the lifetime of the financial assets.

Financial liabilities owed by the Company as at the balance sheet date are largely in respect of borrowings (details of which are provided in note K and the Group consolidated financial statements, note 52) and loans owed to subsidiaries. Loans owed to subsidiaries were within agreed credit terms as at the balance sheet date.

Interest rate risk

Loans to and from subsidiaries are at either fixed or floating rates of interest, with the latter being exposed to fluctuations in these rates. The choice of rates is designed to match the characteristics of financial investments (which are also exposed to interest rate fluctuations) held in both the Company and the relevant subsidiary, to mitigate as far as possible each company's net exposure.

All of the Company's long-term external borrowings are at fixed rates of interest and are therefore not exposed to changes in these rates. However, for short term commercial paper, the Company is affected by changes in these rates to the extent the redemption of these borrowings is funded by the issuance of new commercial paper or other borrowings. Further details of the Company's borrowings are provided in note K and the Group consolidated financial statements, note 52.

O – Risk management continued

Interest rate risk continued

The effect of a 100 basis point increase/decrease in interest rates on floating rate loans due to and from subsidiaries and on refinancing short term commercial paper as it matures would be a decrease/increase in profit before tax of £104 million (2017: decrease/increase of £114 million). The net asset value of the Company's financial resources is not materially affected by fluctuations in interest rates.

Currency risk

The Company's direct subsidiaries are exposed to foreign currency risk arising from fluctuations in exchange rates during the course of providing insurance and asset management services around the world. The exposure of the subsidiaries to currency risk is considered from a Group perspective in the Group consolidated financial statements, note 59(c)(v).

The Company faces exposure to foreign currency risk through some of its borrowings which are denominated in Euros. However, most of these borrowings have been on-lent to a subsidiary which holds investments in Euros, generating the net investment hedge described in the Group consolidated financial statements, note 60(a).

Liquidity risk

Liquidity risk is the risk of not being able to make payments as they become due because there are insufficient assets in cash form. The Company's main sources of liquidity are liquid assets held within the Company and its subsidiary Aviva Group Holdings Limited, and dividends received from the Group's insurance and asset management businesses. Sources of liquidity in normal markets also include a variety of short and long-term instruments including commercial papers and medium and long-term debt. In addition to the existing liquid resources and expected inflows, the Company maintains significant undrawn committed borrowing facilities from a range of leading international banks to further mitigate this risk.

Maturity analysis of external borrowings and amounts due to and by subsidiaries are provided in notes G and K respectively.

P – Related party transactions

The Company had the following related party transactions.

Loans to and from subsidiaries are made on normal arm's-length commercial terms. The maturity analysis of the related party loans is as follows:

(i) Loans owed by subsidiaries

Maturity analysis	2018 £m	2017 £m
Within 1 year	—	1,730
1 – 5 years	3,485	754
Over 5 years	1,916	2,926
Total	5,401	5,410

The interest received on these loans is £92 million (2017: £116 million). See note B.

On 1 January 2013, Aviva International Holdings Limited, an indirect subsidiary, transferred the following loan liabilities with the Company to Aviva Group Holdings Limited, its direct subsidiary:

- An unsecured loan of €250 million, entered into on 7 May 2003 accruing interest at fixed rate of 5.5% with settlement to be paid at maturity in May 2033. As at the statement of financial position date, the total amount drawn down on the facility was £224 million (2017: £222 million).

On 23 December 2014, the Company provided an unsecured revolving credit facility of £2,000 million to Aviva Group Holdings Limited, its subsidiary, with an initial maturity date of 3 September 2018 which was subsequently extended to 31 December 2023. The facility accrues interest at 75 basis points above 6 month LIBOR. As at the statement of financial position date, the total amount drawn down on the facility was £1,752 million (2017: £1,286 million).

On 27 June 2016, the Company provided an unsecured loan of C\$446 million to Aviva Group Holdings Limited, its subsidiary, with a maturity date of 27 June 2046. The loan accrues interest at 348 basis points above 6 month CDOR. As at the statement of financial position date, the total amount drawn was £256 million (2017: £263 million).

On 30 September 2016, the Company provided the following loans to Aviva Group Holdings Limited, its subsidiary:

- An unsecured loan of €850 million with a maturity date of 30 September 2021. The loan accrues interest at 115 basis points above 12 month EURIBOR with settlement to be paid at maturity. As at the statement of financial position date, the total amount drawn was £700 million (2017: £754 million).
- An unsecured loan of €650 million with a maturity date of 5 July 2023. The loan accrues interest at a fixed rate of 1.54% with settlement to be paid at maturity. As at the statement of financial position date, the total amount drawn down on the facility was £584 million (2017: £577 million).
- An unsecured loan of €700 million with a maturity date of 3 July 2024. The loan accrues interest at a fixed rate of 1.64% with settlement to be paid at maturity. As at the statement of financial position date, the total amount drawn down on the facility was £628 million (2017: £621 million).
- An unsecured loan of €900 million with a maturity date of 4 December 2025. The loan accrues interest at a fixed rate of 1.74% with settlement to be paid at maturity. As at the statement of financial position date, the total amount drawn down on the facility was £808 million (2017: £799 million).

P – Related party transactions continued

(i) Loans owed by subsidiaries continued

On 21 November 2016, the Company provided an unsecured loan of €500 million to Aviva Group Holdings Limited, its subsidiary, with a maturity date of 27 October 2023. The loan accrues interest at a fixed rate of 1.75% with settlement to be paid at maturity. As at the statement of financial position date, the total amount drawn was £449 million (2017: £444 million).

(ii) Loans owed to subsidiaries

	2018			2017		
	Principal £m	Interest £m	Total £m	Principal £m	Interest £m	Total £m
Maturity analysis of contractual undiscounted cash flows:						
Within 1 year	—	131	131	3,108	122	3,230
1 – 5 years	12,815	514	13,329	9,900	390	10,290
Over 5 years	—	—	—	—	—	—
Total	12,815	645	13,460	13,008	512	13,520

The interest paid on these loans is £194 million (2017: £175 million). See note D.

On 3 September 2013 Aviva Group Holdings Limited, its subsidiary, provided an unsecured rolling credit facility of €250 million to the Company, accruing interest at 75 basis points above 6 month LIBOR and with an initial maturity date of 3 September 2018, which was subsequently extended to 31 December 2023. The total amount drawn down on the facility at 31 December 2018 was £nil (2017: £nil).

On 14 December 2017, the Company renewed its facility with GA plc, its subsidiary, of £9,990 million and the Board approved the extension of the maturity of the loan by five years from 31 December 2017 to 31 December 2022. The other terms of the loan will remain unchanged, including the rate of interest payable by the Company to GA plc (65 basis points above 3 month LIBOR and in the event that the LIBOR rate is less than zero, the rate shall be deemed to be zero). As at 31 December 2018, the loan balance outstanding was £9,770 million (2017: £9,900 million). This loan is secured against the ordinary share capital of Aviva Group Holdings Limited. The loan agreement also includes a penalty interest charge of 1% above the interest rate if any amounts payable under the loan agreement remain outstanding.

(iii) Other transactions

Services provided to related parties

	2018		2017 ¹	
	Income earned in year £m	Receivable at year end £m	Income earned in year £m	Receivable at year end £m
Subsidiaries	2,780	414	1,740	298

1 Following a review of the Company's related party classifications, comparative amounts in respect of services provided to related parties have been amended from those previously reported. The balances exclude loans owed by subsidiaries.

Income earned relates to dividends. The Company incurred expenses in the year of £0.5 million (2017: £0.2 million) representing audit fees paid by the Company on behalf of subsidiaries. The Company did not recharge subsidiaries for these expenses.

The related parties' receivables are not secured and no guarantees were received in respect thereof. The receivables will be settled in accordance with normal credit terms.

Services provided by related parties

	2018		2017 ¹	
	Expense incurred in year £m	Payable at year end £m	Expense incurred in year £m	Payable at year end £m
Subsidiaries	224	4,206	182	4,084

1 Following a review of the Company's related party classifications, comparative amounts in respect of services provided by related parties have been amended from those previously reported. The balances exclude loans owed to subsidiaries.

Expenses incurred relates to operating expenses. All the Company's operating cash requirements are met by subsidiary companies and settled through intercompany loans.

The related parties' payables are not secured and no guarantees were given in respect thereof. The payables will be settled in accordance with normal credit terms. Details of guarantees, indemnities and warranties given by the Company on behalf of related parties are given in note 55(f).

Key management

The directors and key management of the Company are considered to be the same as for the Group. Information on both the Company and Group key management compensation can be found in note 62.

Q – Subsequent events

There are no subsequent events to report.

Other information

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Alternative Performance Measures

In order to fully explain the performance of our business, we discuss and analyse our results in terms of financial measures which include a number of alternative performance measures (APMs). APMs are non-GAAP measures which are used to supplement the disclosures prepared in accordance with other regulations such as International Financial Reporting Standards (IFRS) and Solvency II. We believe these measures provide useful information to enhance the understanding of our financial performance. However, APMs should be viewed as complementary to, rather than as a substitute for, the figures determined according to other regulations.

The APMs utilised by Aviva may not be the same as those used by other insurers and may change over time. These metrics are reviewed annually and updated as appropriate to ensure they remain an effective measurement that underpins the objectives for the Group.

This section includes a definition of each APM and additional information, including a reconciliation to the relevant amounts in the IFRS Financial Statements and, where appropriate, commentary on the material reconciling items.

There are no new APMs or changes to existing APMs in 2018.

Assets under management (AUM) and assets under administration (AUA)

Assets under management (AUM) represent all assets managed or administered by or on behalf of the Group, including those assets managed by third parties. AUM include managed assets that are reported within the Group's statement of financial position and those assets belonging to external clients outside the Aviva Group which are therefore not included in the Group's statement of financial position.

Consistent with previous years, assets under administration (AUA) comprise AUM plus assets managed by third parties on platforms administered by Aviva Investors.

Both AUM and AUA are monitored as they reflect the potential earnings arising from investment returns and fee and commission income and measure the size and scale of the Group's fund management business.

A reconciliation of AUM to amounts appearing in the Group's statement of financial position is shown below.

	2018 £bn	2017 £bn
AUM managed on behalf of Group companies		
Assets included in statement of financial position ¹		
Financial investments	305	319
Investment properties	11	11
Loans	29	28
Cash and cash equivalents	47	44
Other	1	1
	393	403
Less: third party funds included above	(19)	(19)
	374	384
AUM managed on behalf of third parties²		
Aviva Investors ³	64	72
UK Platform ⁴	23	20
Other	9	11
	96	103
Total AUM	470	487

¹ Includes assets classified as held for sale.

² AUM managed on behalf of third parties cannot be directly reconciled to the financial statements.

³ Following a review of AUM managed on behalf of third parties, comparative amounts for Aviva Investors have been amended from those previously reported to reflect the fact that certain crossholdings had not been correctly eliminated on consolidation. The effect of this change is to reduce total AUM by £2.5 billion at 31 December 2017.

⁴ UK Platform relates to the assets under management in the UK long-term savings business.

Cash remittances[‡]

Cash paid by our operating businesses to the Group, comprised of dividends and interest on internal loans. Dividend payments by operating businesses may be subject to insurance regulations that restrict the amount that can be paid. The business monitors total cash remittances at a Group level and in each of its markets.

Cash remittances eliminate on consolidation and hence are not directly reconcilable to the Group's IFRS consolidated statement of cash flows.

Combined operating ratio (COR)[‡]

A financial measure of general insurance underwriting profitability calculated as total underwriting costs in our insurance entities expressed as a percentage of net earned premiums. A COR below 100% indicates profitable underwriting.

The COR does not include the impact of any changes in the discount rate used for estimating lump sum payments in settlement of bodily injury claims.

The Group reported COR is shown below.

	2018 £m	2017 £m
Incurred claims – GI & Health (as per note 5) ¹	(6,400)	(6,533)
Adjusted for the following:		
Incurred claims – Health	633	677
Impact of change in the discount rate used in settlement of bodily injury claims	(190)	—
Total incurred claims (included in COR)	(5,957)	(5,856)
Total commissions and expenses (included in COR) ²	(2,765)	(2,813)
Total underwriting costs	(8,722)	(8,669)
Net earned premiums – GI & Health (as per note 5)	9,887	9,882
Adjusted for:		
Net earned premiums – Health	(857)	(906)
Net earned premiums (included in COR)	9,030	8,976
Combined operating ratio	96.6%	96.6%

¹ Corresponds to the sum of claims and benefits paid, net of recoveries from reinsurers and the change in insurance liabilities, net of reinsurance per note 5.

² Commission and expenses consists of fee and commission income, fee and commission expense and other operating expenses included within the general insurance & health segmental income statement (per note 5) adjusted to an earned basis and to remove the health business.

symbol denotes key performance indicators used as a base to determine or modify remuneration.

‡ denotes APMs which are key performance indicators. There have been no changes to the APMs used by the Group during period under review.

The normalised accident year combined operating ratio is derived from the COR (as defined in this section) with adjustments made to exclude the impact of prior year reserve development and weather claims variations versus expectations, gross of the impact of profit sharing arrangements. These adjustments are made so that the underlying performance of the Group can be assessed excluding factors that might distort the trend in the claims ratio on a year on year basis.

Claims ratio

A financial measure of the performance of our general insurance business which is calculated as incurred claims expressed as a percentage of net earned premiums, which can be derived from the COR table above.

Excess centre cash flow

This represents the cash remitted by business units to the Group centre less central operating expenses and debt financing costs. Excess centre cash flow is a measure of the cash available to pay dividends, reduce debt or invest back into our business.

These amounts eliminate on consolidation and hence are not directly reconcilable to the Group's IFRS consolidated statement of cash flows.

Group adjusted operating profit^{†‡}

Group adjusted operating profit is a non-GAAP APM which is reported to the Group chief operating decision maker for the purpose of decision making and for internal performance management of the Group's operating segments that incorporates an expected return on investments supporting the life and non-life insurance businesses. The various items excluded from group adjusted operating profit, but included in IFRS profit before tax, are:

Investment variances, economic assumption changes and short-term fluctuation in return on investments

Group adjusted operating profit for the life insurance business is based on expected investment returns on financial investments backing shareholder and policyholder funds over the reporting period, with allowance for the corresponding expected movements in liabilities. The expected rate of return is determined using consistent assumptions between operations, having regard to local economic and market forecasts of investment return and asset classification. For fixed interest securities classified as fair value through profit or loss, the expected investment returns are based on average prospective yields for the actual assets held less an adjustment for credit risk. Where such securities are classified as available for sale the expected return comprises interest or dividend payments and amortisation of the premium or discount at purchase. The expected return on equities and properties is calculated by reference to the opening 10-year swap rate in the relevant currency plus an appropriate risk margin.

Group adjusted operating profit includes the effect of variances in experience for non-economic items, such as mortality, persistency and expenses, and the effect of changes in non-economic assumptions. This would include movements in liabilities due to changes in discount rate arising from discretionary management decisions that impact on product profitability over the lifetime of products. Changes due to economic items, such as market value movement and interest rate changes, which give rise to variances between actual and expected investment returns, and the impact of changes in economic assumptions on liabilities, are disclosed separately outside Group adjusted operating profit.

Group adjusted operating profit for the non-life insurance business is based on expected investment returns on financial investments backing shareholder funds over the period. Expected investment returns are calculated for equities and properties by multiplying the opening market value of the investments, adjusted for sales and

purchases during the year, by the long-term rate of return. This rate of return is the same as that applied for the long-term business expected returns. The long-term return for other investments is the actual income receivable for the period.

Changes due to market value movements and interest rate changes, which give rise to variances between actual and expected investment returns, are disclosed separately outside Group adjusted operating profit. The impact of changes in the discount rate applied to claims provisions is also disclosed outside Group adjusted operating profit.

The exclusion of short-term investment variances from this APM reflects the long-term nature of much of our business. The Group adjusted operating profit which is used in managing the performance of our operating segments excludes the impact of economic factors, to provide a comparable measure year on year.

Impairment, amortisation and profit or loss on disposal

Group adjusted operating profit also excludes impairment of goodwill, associates and joint ventures; amortisation and impairment of other intangibles; amortisation and impairment of acquired value of in-force business; and the profit or loss on disposal and remeasurement of subsidiaries, joint ventures and associates. These items principally relate to merger and acquisition activity which we view as strategic in nature, hence they are excluded from the Group adjusted operating profit APM as this is principally used to manage the performance of our operating segments when reporting to the Group chief operating decision maker.

Other items

These items are, in the Directors' view, required to be separately disclosed by virtue of their nature or incidence to enable a full understanding of the Group's financial performance. Other items at 2018 comprise:

- A movement in the discount rate used for estimating lump sum payments in settlement of bodily injury claims which resulted in a gain of £190 million (see note 43(b)). Consistent with the presentation of the change in the Ogden discount rate in 2016, this is reported outside of Group adjusted operating profit
- A charge of £63 million relating to the UK defined benefit pension scheme as a result of the requirement to equalise members' benefits for the effects of Guaranteed Minimum Pension (see note 51(b)). This is reported outside of Group adjusted operating profit as the additional liability arose as a consequence of a High Court judgement in October 2018 in the case involving Lloyds Banking Group; and does not reflect the financial performance of the Group for the year
- A charge of £10 million relating to goodwill payments to preference shareholders, which was announced on 30 April 2018, and associated administration costs (see note 35)
- A release of a provision of £78 million relating to the sale of Aviva USA in 2013, which represents the reversal of an item previously excluded from Group adjusted operating profit
- A gain of £36 million relating to negative goodwill on the acquisition of Friends First (see note 3), which is excluded from Group adjusted operating profit for consistency with the treatment of impairment of goodwill

There were no Other items in 2017.

Group adjusted operating profit is presented before and after integration and restructuring costs. These costs are only reported to the extent that they are significant, and not otherwise absorbed within operating costs.

The Group adjusted operating profit APM should be viewed as complementary to IFRS GAAP measures. It is important to consider

Alternative Performance Measures > [Continued](#)

Group adjusted operating profit and profit before tax together to understand the performance of the business in the period.

The table below presents a reconciliation between our consolidated operating profit and profit before tax attributable to shareholders' profits.

	2018 £m	2017 £m
United Kingdom – Life	1,909	1,764
United Kingdom – General Insurance	415	411
Canada	47	46
Europe	1,011	1,059
Asia	262	191
Aviva Investors	151	201
Other Group activities	(679)	(604)
Group adjusted operating profit before tax attributable to shareholders' profits	3,116	3,068
Integration and restructuring costs	—	(141)
Group adjusted operating profit before tax after integration and restructuring costs	3,116	2,927
Adjusted for the following:		
Investment return variances and economic assumption changes on life business	(197)	34
Short-term fluctuation in return on investments on non-life business	(476)	(345)
Economic assumption changes on general insurance and health business	1	(7)
Impairment of goodwill, associates and joint ventures and other amounts expensed	(13)	(49)
Amortisation and impairment of intangibles	(209)	(197)
Amortisation and impairment of acquired value of in-force business	(426)	(495)
Profit on the disposal and re-measurement of subsidiaries, joint ventures and associates	102	135
Other	231	—
Adjusting items before tax	(987)	(924)
Profit before tax attributable to shareholders' profits	2,129	2,003

Net asset value (NAV) per share

NAV per share is calculated as the equity attributable to shareholders of Aviva plc, less preference share capital (both within the consolidated statement of financial position), divided by the actual number of shares in issue as at the balance sheet date.

NAV per share is used to monitor the value generated by the Company in terms of the equity shareholders' face value per share investment and enables comparability.

Net fund flows

Net fund flows is one of the measures of growth used by management and is a component of the movement in the life and platform business managed assets (excluding UK with-profits) during the period. It is the difference between the inflows (being IFRS net written premiums plus deposits received under investment contracts) and outflows (being IFRS net paid claims plus redemptions and surrenders under investment contracts). It excludes market and other movements.

Operating expenses

The day-to-day expenses involved in running the business are classified as operating expenses. A reconciliation of operating expenses to the IFRS consolidated income statement is set out below:

	2018 £m	2017 £m
Other expenses (IFRS income statement)	3,843	3,537
Less: amortisation and impairment	(658)	(678)
Less: foreign exchange gains/(losses)	(28)	(49)
Other acquisition costs	954	892
Claims handling costs	336	330
Integration and restructuring costs	—	(141)
Less: Other costs	(421)	(113)
Operating expenses	4,026	3,778

Operating expenses exclude impairment of goodwill, associates and joint ventures; amortisation and impairment of other intangible assets; amortisation and impairment of acquired value of in-force business; and the profit or loss on disposal and remeasurement of subsidiaries, joint ventures and associates. These items relate to merger and acquisition activity which we view as strategic in nature, hence they are excluded from the operating expenses APM as this is principally used to manage the performance of our operating segments.

Other acquisition costs and claims handling costs are included as these are considered to be controllable by the operating segments and directly impact their performance.

There have been no costs classified as integration and restructuring in the year. In 2017, these costs relate to integration costs in the UK and Canada, and restructuring costs in the UK and Europe. It is possible that significant integration and restructuring activity undertaken in the future may result in the related costs being excluded from operating profit.

Operating expenses excludes other costs based on management's assessment of their nature or incidence that are not representative of underlying operating expenses and would distort the year on year operating expenses trend. Other costs represent a reallocation based on management's assessment of ongoing maintenance of business units and in 2018 includes movements in provisions set aside in respect of ongoing regulatory compliance as well as an increase of £175 million product governance provision relating to a historical issue over pension arrangement advised sales by Friends Provident, of which over 90% of cases relate to pre-2002 (see note 50 – Pension deficits and other provisions).

Operating earnings per share (EPS)[‡]

Operating EPS[‡] is calculated based on the Group adjusted operating profit attributable to ordinary shareholders net of tax, deducting non-controlling interests, preference dividends and the direct capital instrument (DCI) and tier 1 note coupons divided by the weighted average number of ordinary shares in issue, after deducting treasury shares. Operating EPS is used by management to determine the dividend payout ratio target and hence a useful APM for users of the financial statements. A reconciliation between Operating EPS and Basic EPS can be found in note 15.

[‡] In 2016 and 2017 adjustments were made to the Group calculation of Operating EPS for the purposes of calculating Executive Directors' bonus and long-term incentive plans. These adjustments are described in the Annual Report on Remuneration.

Present value of new business premiums (PVNBP)

PVNBP measures the additional value to shareholders of sales in the Group's life insurance business. PVNBP is derived from the present value of new regular premiums expected to be received over the term of the new contracts plus 100% of single premiums from new business written in the financial period and is expressed at the point of sale. The discounted value of regular premiums is calculated using the same methodology as for Value of new business on an adjusted Solvency II basis (VNB). PVNBP also includes any changes to existing contracts which were not anticipated at the outset of the contract that generate additional shareholder risk and associated premium income of the nature of a new policy.

Alternative Performance Measures > [Continued](#)

The table below presents a reconciliation of sales to IFRS net written premiums.

	2018 £m	2017 £m
Present value of new business premiums	40,763	40,795
Investment sales	4,799	7,888
General insurance and health net written premiums	9,968	10,035
Long-term health and collectives business	(3,840)	(5,213)
Total sales	51,690	53,505
Effect of capitalisation factor on regular premium long-term business ¹	(12,726)	(11,412)
JVs and associates ²	(257)	(618)
Annualisation impact of regular premium long-term business ³	(247)	(281)
Deposits ⁴	(10,329)	(10,953)
Investment sales ⁵	(4,799)	(7,888)
IFRS gross written premiums from existing long-term business ⁶	4,776	4,765
Long-term insurance and savings business premiums ceded to reinsurers	(1,775)	(1,741)
Total IFRS net written premiums	26,333	25,377
Analysed as:		
Long-term insurance and savings net written premiums	16,365	15,342
General insurance and health net written premiums	9,968	10,035
	26,333	25,377

- 1 Discounted value of regular premiums expected to be received over the term of the new contract, adjusted for expected levels of persistency.
- 2 Total long-term new business sales include our share of sales from joint ventures and associates. Under IFRS, premiums from these sales are excluded.
- 3 The impact of annualisation is removed in order to reconcile the non-GAAP new business sales to IFRS premiums.
- 4 Under IFRS, only the margin earned from non-participating investment contracts is recognised in the IFRS income statement.
- 5 Investment sales included in total sales represent the cash inflows received from customers investing in mutual fund type products such as unit trusts and OEICs.
- 6 The non-GAAP measure of sales focuses on new business written in the period under review while the IFRS income statement includes premiums received from all business, both new and existing.

Return on Equity (RoE)[#]

The RoE¹ calculation is based on Group adjusted operating profit, after tax attributable to ordinary shareholders expressed as a percentage of weighted average ordinary shareholders' equity (excluding non-controlling interests, preference share capital and direct capital instrument and tier 1 notes).

- 1 In 2016 and 2017 adjustments were made to the Group calculation of RoE for the purposes of calculating Executive Directors' bonus and long-term incentive plans. These adjustments are described in the Annual Report on Remuneration.

Solvency II

Available capital resources determined under Solvency II are referred to as 'own funds'. This includes the excess of assets over liabilities in the Solvency II balance sheet, calculated on best estimate, market consistent assumptions and net of transitional measures on technical provisions (TMTP), subordinated liabilities that qualify as capital under Solvency II, and off-balance sheet own funds.

The Solvency II regime requires insurers to hold own funds in excess of the Solvency Capital Requirement (SCR). The SCR is calculated at Group level using a risk based capital model which is calibrated to reflect the cost of mitigating the risk of insolvency to a 99.5% confidence level over a one year time horizon – equivalent to a 1 in 200 year event – against financial and non-financial shocks. As a number of subsidiaries utilise the standard formula rather than a risk based capital model to assess capital requirements, the overall Group SCR is calculated using a partial internal model, and it is shown after the impact of diversification benefit.

The reconciliation from total Group equity on an IFRS basis to Solvency II own funds is presented below.

	2018 £bn	2017 £bn
Total Group equity on an IFRS basis	18.5	19.1
Elimination of goodwill and other intangible assets ¹	(7.8)	(9.8)
Liability valuation differences (net of transitional deductions) ²	19.2	22.0
Inclusion of risk margin (net of transitional deductions)	(3.3)	(3.2)
Net deferred tax ³	(1.1)	(1.3)
Revaluation of subordinated liabilities	(0.6)	(0.7)
Other accounting differences ⁴	(0.3)	(0.1)
Estimated Solvency II net assets (gross of non-controlling interests)	24.6	26.0
Difference between Solvency II net assets and own funds ⁵	(1.0)	(1.3)
Estimated Solvency II own funds⁶	23.6	24.7

- 1 Includes £1.8 billion (2017: £1.9 billion) of goodwill and £6.0 billion (2017: £7.9 billion) of other intangible assets comprising acquired value of in-force business of £2.9 billion (2017: £3.3 billion), deferred acquisition costs (net of deferred income) of £2.8 billion (2017: £2.9 billion) and other intangibles of £0.3 billion (2017: £1.7 billion).
- 2 Includes the adjustments required to reflect market consistent principles under Solvency II whereby non-insurance assets and liabilities are measured using market value and liabilities arising from insurance contracts are valued on a best estimate basis using market-implied assumptions.
- 3 Net deferred tax includes the tax effect of all other reconciling items in the table above which are shown gross of tax.
- 4 Includes valuation adjustments and the impact of the difference between consolidation methodologies under Solvency II and IFRS.
- 5 Regulatory adjustments to bridge from Solvency II net assets to own funds include recognition of subordinated debt capital and non-controlling interests.
- 6 The estimated Solvency II position represents the shareholder view only.

A number of key performance metrics relating to Solvency II are utilised to measure and monitor the Group's performance and financial strength:

- Solvency II shareholder cover ratio[†]
- Value of new business on an adjusted Solvency II basis (VNB)[†]
- Operating Capital Generation (OCG)[#]

Definitions and additional information in respect of each of these metrics is included within this section.

Solvency II shareholder cover ratio[†]

The estimated Solvency II shareholder cover ratio is an indicator of the Group's balance sheet strength which is derived from own funds divided by the SCR using a 'shareholder view'. The shareholder view is considered by management to be more representative of the shareholders' risk-exposure and the Group's ability to cover the SCR with eligible own funds, and aligns with management's approach to dynamically manage its capital position. In arriving at the shareholder position, the following adjustments are typically made to the regulatory Solvency II position:

- The contribution to the Group's SCR and own funds of the most material fully ring fenced with-profits funds and staff pension schemes in surplus are excluded. These exclusions have no impact on Solvency II surplus as these funds are self-supporting on a Solvency II capital basis with any surplus capital above SCR not recognised.
- A notional reset of the transitional measure on technical provisions (TMTP), calculated using the same method as used for formal TMTP resets. This presentation avoids step changes to the Solvency II position that arise only when the formal TMTP reset points are triggered. The TMTP is amortised on a straight-line basis over 16 years from 1 January 2016 in line with the Solvency II rules.
- Pro forma adjustments are made if the Solvency II shareholder cover ratio does not fully reflect the effect of transactions or capital actions that are known as at each reporting date. Such adjustments may be required in respect of planned acquisitions and disposals, group reorganisations and adjustments to the Solvency II valuation basis arising from changes to the underlying regulations or updated interpretations provided by EIOPA. These adjustments have been made in order to show a more representative view of the Group's solvency position.

A summary of the Group's Solvency II position is shown in the table below.

	2018 £bn	2017 £bn
Own Funds	23.6	24.7
Solvency Capital Requirement	(11.6)	(12.5)
Estimated Solvency II Surplus at 31 December	12.0	12.2
Estimated Shareholder Cover Ratio	204%	198%

Value of new business on an adjusted Solvency II basis (VNB)*

VNB measures the additional value to shareholders created through the writing of new life business in the period. It reflects Solvency II assumptions and allowance for risk and is defined as the increase in Solvency II own funds resulting from business written in the period, including the impact of interactions between in-force and new business, adjusted to:

- remove the impact of the contract boundary restrictions under Solvency II;
- allow for businesses which are not within the scope of the Solvency II own funds (e.g. UK and Asia Healthcare, retail fund management and UK equity release); and
- include the impacts of tax and 'look through profits' in service companies (where not included in Solvency II) and deduct the impacts of non-controlling interests.

These adjustments are considered to reflect a more realistic basis than the prudential Solvency II rules. The VNB is derived from the present value of projected pre-tax distributable profits generated by new business plus a risk margin.

Operating assumptions

The operating assumptions used are derived from an analysis of recent operating experience to give a best estimate of future experience. When these assumptions are updated, the year-to-date VNB will capture the impact of the assumption change on all business sold that year.

Economic assumptions

VNB is calculated using economic assumptions as at the point of sale, taken as those appropriate to the start of each quarter. For contracts that are repriced more frequently, weekly or monthly economic assumptions have been used. Dealing with each of the principal economic assumptions in turn:

- The risk-free interest rate curves used to calculate VNB reflect the basic risk-free interest rate curves (including the credit risk adjustment) published by EIOPA on their website.
- The volatility adjustment is intended to reflect temporary distortions in spreads on government bonds based on rates prescribed by EIOPA.
- The matching adjustment (MA) is an increase applied to the risk-free rate used to value insurance liabilities where the cash flows are relatively fixed and well matched by assets intended to be held to maturity with relatively fixed cash flows (resulting in additional yield from illiquidity risk).

Matching adjustment (MA)

A MA is applied to certain obligations based on the expected allocation of assets backing new business at each year-end date. This allocation may be different to the MA applied at the portfolio level. Aviva applies a MA to certain obligations in UK Life, using methodology which is set out in the Solvency and Financial Condition Report.

The matching adjustment used for 2018 UK new business (where applicable) was 105 bps (2017 restated¹: 132 bps).

¹ The 2017 matching adjustment has been restated to reflect an allowance for credit risk and investment expenses.

New business margin

New business margin is calculated as value of new business on an adjusted Solvency II basis (VNB) divided by the present value of new business premiums (PVNBP), and expressed as a percentage.

Operating capital generation (OCG)#

OCG is the Solvency II surplus movement in the period due to operating items. The calculation of OCG is consistent with previous years.

For life business, OCG is split into the impact of new business, earnings from existing business and other OCG, where other OCG includes the impact of capital actions and non-economic assumption changes. OCG excludes economic variances and economic assumption changes. The expected investment returns assumed within earnings from existing business are consistent with the returns within Group adjusted operating profit.

An analysis of the components of OCG is presented below:

	2018 £bn	2017 £bn
Adjusted Solvency II VNB (gross of tax and non-controlling interests)	1.2	1.2
Allowance for Solvency II contract boundary rules	—	—
Differences due to change in business in scope	(0.2)	(0.2)
Tax & Other ¹	(0.3)	(0.3)
Solvency II Own Funds impact of new business (net of tax and non-controlling interests)	0.7	0.7
Solvency II SCR impact of new business	(0.9)	(0.8)
Solvency II surplus impact of new business	(0.2)	(0.1)
Life earnings from existing business	1.6	1.6
Life Other OCG ²	1.8	0.9
Life Solvency II OCG	3.2	2.4
GI, Health, FM & Other Solvency II OCG	—	0.2
Total Solvency II OCG	3.2	2.6

¹ Other includes the impact of 'look through profits' in service companies (where not included in Solvency II) and the reduction in value when moving to a net of non-controlling interests basis.

² Other OCG includes the impact of capital actions and non-economic assumption changes.

[Shareholder services](#)

Shareholder services

2019 Financial Calendar

Ordinary dividend timetable:	Final	Interim**
Ordinary ex-dividend date	11 April 2019	15 August 2019
Dividend record date	12 April 2019	16 August 2019
Last day for Dividend Reinvestment Plan and currency election	8 May 2019	5 September 2019
Dividend payment date*	30 May 2019	26 September 2019
Other key dates:		
Annual General Meeting	11 am on 23 May 2019	
2018 interim results announcement	8 August 2019	

* Please note that the ADR local payment date will be approximately four business days after the proposed dividend date for ordinary shares.

** These dates are provisional and subject to change

Dividend payment options

Shareholders are able to receive their dividends in the following ways:

- Directly into a nominated UK bank account
- Directly into a nominated Eurozone bank account
- The Global Payment Service provided by our Registrar, Computershare. This enables shareholders living outside of the UK and the Single Euro Payments Area to elect to receive their dividends or interest payments in a choice of over 125 international currencies
- The Dividend Reinvestment Plan enables eligible shareholders to reinvest their cash dividend in additional Aviva ordinary shares

You can find further details regarding these payment options at www.aviva.com/dividends and register your choice by contacting Computershare using the contact details opposite, online at www.aviva.com/online or by returning a dividend mandate form. You must register for one of these payment options to receive any dividend payments from Aviva.

Manage your shareholding online

www.aviva.com/shareholders:

General information for shareholders.

www.aviva.com/online:

You can access Computershare online services and log in using your Computershare details to:

- Change your address
- Change payment options
- Switch to electronic communications
- View your shareholding
- View any outstanding payments

Annual General Meeting (AGM)

The 2019 AGM will be held at The Queen Elizabeth II Centre, Broad Sanctuary, Westminster, London SW1P 3EE, on Thursday, 23 May 2019, at 11am.

Details of each resolution to be considered at the meeting and voting instructions are provided in the Notice of AGM, which is available on the Company's website at www.aviva.com/agm. The voting results of the 2019 AGM will be accessible on the Company's website at www.aviva.com/agm shortly after the meeting.

Aviva plc strategic report

The strategic report sets out a review of Aviva's business, addressing key issues such as its business model, strategy and principal risks and uncertainties facing the business. The strategic report forms part of the annual report and accounts. However, shareholders can also elect to receive Aviva's standalone strategic report as an alternative to the full annual report and accounts by contacting Computershare using the contact details below.

Shareholder contacts:

Ordinary and preference shares – Contact:

For any queries regarding your shareholding, please contact Computershare:

- **By telephone:** 0371 495 0105
We are open Monday to Friday, 8.30am to 5.30pm UK time, excluding public holidays. Please call +44 117 378 8361 if calling from outside of the UK
- **By email:** AvivaSHARES@computershare.co.uk
- **In writing:** Computershare Investor Services PLC, The Pavilions, Bridgwater Road, Bristol, BS99 6ZZ

American Depositary Receipts (ADRs) – Contact:

For any queries regarding Aviva ADRs, please contact Citibank Shareholder Services (Citibank):

- **By telephone:** 1 877 248 4237 (1 877-CITI-ADR)
We are open Monday to Friday, 8.30am to 6pm US Eastern Standard Time, excluding public holidays. Please call +1 781 575 4555 if calling from outside of the US
- **By email:** Citibank@shareholders-online.com
- **In writing:** Citibank Shareholder Services, PO Box 43077, Providence, Rhode Island, 02940-3077 USA

Group Company Secretary

Shareholders may contact the Group Company Secretary:

- **By email:** Aviva.shareholders@aviva.com
- **In writing:** Kirstine Cooper, Group Company Secretary, St Helen's, 1 Undershaft, London, EC3P 3DQ
- **By telephone:** +44 (0)20 7283 2000

Cautionary statement

This document should be read in conjunction with the documents distributed by Aviva plc (the 'Company' or 'Aviva') through The Regulatory News Service (RNS).

This announcement contains, and we may make other verbal or written 'forward-looking statements' with respect to certain of Aviva's plans and current goals and expectations relating to future financial condition, performance, results, strategic initiatives and objectives. Statements containing the words 'believes', 'intends', 'expects', 'projects', 'plans', 'will', 'seeks', 'aims', 'may', 'could', 'outlook', 'likely', 'target', 'goal', 'guidance', 'trends', 'future', 'estimates', 'potential' and 'anticipates', and words of similar meaning, are forward-looking. By their nature, all forward-looking statements involve risk and uncertainty. Accordingly, there are or will be important factors that could cause actual results to differ materially from those indicated in these statements. Aviva believes factors that could cause actual results to differ materially from those indicated in forward-looking statements in the announcement include, but are not limited to: the impact of ongoing difficult conditions in the global financial markets and the economy generally; the impact of simplifying our operating structure and activities; the impact of various local and international political, regulatory and economic conditions; market developments and government actions (including those arising from the referendum on UK membership of the European Union); the effect of credit spread volatility on the net unrealised value of the investment portfolio; the effect of losses due to defaults by counterparties, including potential sovereign debt defaults or restructurings, on the value of our investments; changes in interest rates that may cause policyholders to surrender their contracts, reduce the value of our portfolio and impact our asset and liability matching; the impact of changes in short or long-term inflation; the impact of changes in equity or property prices on our investment portfolio; fluctuations in currency exchange rates; the effect of market fluctuations on the value of options and guarantees embedded in some of our life insurance products and the value of the assets backing their reserves; the amount of allowances and impairments taken on our investments; the effect of adverse capital and credit market conditions on our ability to meet liquidity needs and our access to capital; changes in, or restrictions on, our ability to initiate capital management initiatives; changes in or inaccuracy of assumptions in pricing and reserving for insurance business (particularly with regard to mortality and morbidity trends, lapse rates and policy renewal rates), longevity and endowments; a cyclical downturn of the insurance industry; the impact of natural and man-made catastrophic events on our business activities and results of operations; our reliance on information and technology and third-party service providers for our operations and systems; the inability of reinsurers to meet obligations or unavailability of reinsurance coverage; increased competition in the UK and in other countries where we have significant operations; regulatory approval of extension of use of the Group's internal model for calculation of regulatory capital under the European Union's Solvency II rules; the impact of actual experience differing from estimates used in valuing and amortising deferred acquisition costs (DAC) and acquired value of in-force business (AVIF); the impact of recognising an impairment of our goodwill or intangibles with indefinite lives; changes in valuation methodologies, estimates and assumptions used in the valuation of investment securities; the effect of legal proceedings and regulatory investigations; the impact of operational risks, including inadequate or failed internal and external processes, systems and human error or from external events (including cyber attack); risks associated with arrangements with third parties, including joint ventures; our reliance on third-party distribution channels to deliver our products; funding risks associated with our participation in defined benefit staff pension schemes; the failure to attract or retain the necessary key personnel; the effect of systems errors or regulatory changes on the calculation of unit prices or

deduction of charges for our unit-linked products that may require retrospective compensation to our customers; the effect of fluctuations in share price as a result of general market conditions or otherwise; the effect of simplifying our operating structure and activities; the effect of a decline in any of our ratings by rating agencies on our standing among customers, broker-dealers, agents, wholesalers and other distributors of our products and services; changes to our brand and reputation; changes in government regulations or tax laws in jurisdictions where we conduct business, including decreased demand for annuities in the UK due to changes in UK law; the inability to protect our intellectual property; the effect of undisclosed liabilities, integration issues and other risks associated with our acquisitions; and the timing/regulatory approval impact, integration risk and other uncertainties, such as non-realisation of expected benefits or diversion of management attention and other resources, relating to announced acquisitions and pending disposals and relating to future acquisitions, combinations or disposals within relevant industries, the policies, decisions and actions of government or regulatory authorities in the UK, the EU, the US or elsewhere, including the implementation of key legislation and regulation. For a more detailed description of these risks, uncertainties and other factors, please see the 'Risk and risk management' section of the strategic report.

Aviva undertakes no obligation to update the forward looking statements in this announcement or any other forward-looking statements we may make. Forward-looking statements in this report are current only as of the date on which such statements are made.

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