

# **Aviva plc**

# Solvency and Financial Condition Report 2019

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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

# **Executive summary**

The Solvency II regulatory framework, which governs industry regulation and prudential capital requirements within the European Union, became effective from 1 January 2016.

The purpose of the Solvency and Financial Condition Report (SFCR) is to provide information required by the Solvency II regulatory framework in respect of the Aviva plc Group (the Group) at 31 December 2019. This report sets out aspects of the Group's business and performance, system of governance, risk profile, valuation methods used for solvency purposes and its capital management practices. The SFCR has been prepared in accordance with the relevant Prudential Regulatory Authority (PRA) Rules and Solvency II regulations.

On 11 March 2020, the World Health Organization declared the outbreak of a strain of novel coronavirus disease, COVID-19, a global pandemic. Figures presented in the SFCR and the associated Quantitative Reporting Templates (QRTs) have been prepared based on conditions and best estimate assumptions at 31 December 2019 and have therefore not been adjusted for any impacts of COVID-19 including any impacts on technical provisions. On 23 March 2020 the PRA announced that COVID-19 should be treated as a "major development" as per Article 54(1) of the Solvency II Directive. Further information on the impact of COVID-19 on the relevance of information disclosed in the SFCR is contained in section F.6.

On 8 April 2020, the Board of Directors agreed to withdraw its recommendation to pay the 2019 final dividend to ordinary shareholders in June 2020. The Board of Directors expects to reconsider any distributions to ordinary shareholders in the fourth quarter of 2020. This decision was taken in the wake of the unprecedented challenges COVID-19 presents for businesses, households and customers, and the adverse and highly uncertain impact on the global economy. Regulatory authorities, including the European Insurance and Occupational Pensions Authority (EIOPA), the PRA and regulators of other Aviva subsidiaries, have responded by publicly urging restraint on dividend payments by insurers to shareholders. In light of the significant uncertainties presented by COVID-19, the Board agreed with our regulators that it is prudent to suspend dividend payments at this time.

# **Business and performance**

Aviva plc, a public limited company incorporated under the laws of England and Wales, is the holding company of the Aviva Group. The Group is a leading international Savings, Retirement and Insurance business and the largest multi-line insurer in the United Kingdom (UK). The Group also operates in Europe, Canada and Asia.

On 4 March 2019, we announced the appointment of Maurice Tulloch as Chief Executive Officer. Maurice has worked with the Board to establish and refine the strategy that will take Aviva forward in the coming years as outlined at our Capital Markets Day on 20 November 2019. The Group's strategy puts the customer at the heart of what we do and provides clear direction for how we run our business across all of our markets. On 20 November 2019, we presented our refreshed strategy, purpose and vision. Our strategy is to simplify Aviva into a leading international savings, retirement and insurance business delivering for our customers, shareholders, communities and other stakeholders. Under our new strategy, we have set out three strategic priorities: deliver great customer outcomes; excel at the fundamentals; invest in sustainable growth; and we have simplified our operating model into five new business divisions (Investments, Savings & Retirement; UK Life; General Insurance; Europe Life; and Asia Life) effective 1 January 2020.

We also announced new financial targets focused on economic value. This reflects the importance of economic metrics in how we manage the business: the allocation of capital and other resources across the Group and the trading decisions we make each day. In 2019, Aviva generated Solvency II return on equity<sup>1</sup> (RoE) of 14.3% (2018: 12.5%) and Solvency II operating capital generation<sup>1</sup> was £2,259 million (2018: £3,198 million). Our economic results continued to benefit from significant levels of longevity reserve reductions in our UK Life business, active balance sheet management and other modelling and assumption changes.

Our operational progress in 2019 was reflected in improved International Financial Reporting Standards (IFRS) results. Group adjusted operating profit¹ increased 6% to £3,184 million (2018 restated²: £3,004 million). Group adjusted operating profit benefited from improved performance in Canada and lower expenses and debt costs. IFRS profit before tax increased to £3,374 million (2018: £2,129 million) helped by positive investment variances driven by lower interest rates and equity market gains, and this led to basic earnings per share of 63.8 pence (2018: 38.2 pence).

Our financial results are affected by a number of external factors, including demographic trends, general economic and market conditions, government policy and legislation and exchange rate fluctuations. In addition, our business is affected by corporate actions taken by the Group, including acquisitions, disposals, debt repayment and other actions aimed at achieving our stated strategy.

Further information on this and other significant events that impacted the Group's Solvency II position during the year are outlined in section A of this report.

# System of governance

The Board's role is to be collectively responsible for promoting the long-term sustainable success of the Group through delivering excellent outcomes for our customers, seeking to generate value for shareholders whilst fulfilling our responsibilities to our stakeholders and contributing positively to the societies in which we operate. It sets the Group's risk appetite and satisfies itself that financial controls and risk management systems are robust, while ensuring the Group is adequately resourced. It is also responsible for setting the values and supporting the culture of the Group, and ensures that there is appropriate dialogue with shareholders on strategy and remuneration. A strong system of governance throughout the Group aids effective decision-making and supports the achievement of the Group's objectives for the benefit of customers and shareholders while in compliance with relevant regulations.

<sup>1</sup> This is an Alternative Performance Measure (APM) which provides useful information to enhance the understanding of financial performance. Further information can be found in section A.2 of this report.

<sup>2</sup> During 2019 the Group adjusted operating profit APM has been revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets. Group adjustment operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts have been restated resulting in a reduction in the prior period Group adjusted operating profit of £112 million. There is no impact on profit before tax attributable to shareholders' profit.

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. In the first line, management monitoring ensures management is responsible for the application of the risk management framework (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. The second line, consisting of risk management, compliance and actuarial functions, is accountable for quantitative and qualitative oversight and challenge of the identification, measurement, monitoring and reporting of principal risks and for developing the RMF. The final and third line relates to internal audit where 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 is provided.

The RMF forms an integral part of the management and Board processes and decision-making framework across the Group. The key elements of our RMF 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.

During the year, the remit of Audit Committee was reviewed and clarified in certain areas. The Committee is responsible for overseeing internal controls over financial reporting while the Risk Committee is responsible for other areas of internal control. The Audit Committee, working closely with the Risk Committee, 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. There has been regular reporting to the Committee throughout the year to ensure that outstanding areas of improvement are both identified and remediated. The Board Committee's Terms of Reference were updated accordingly. While substantial progress has been made, there remain a number of areas where significant work is still required.

Section B of this report describes the system of governance in place throughout the Group by which the operations of the Group are overseen, directed, managed and controlled and explains the compliance with the requirements of Solvency II.

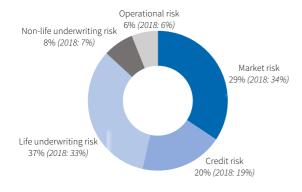
# Risk profile

For the purposes of risk identification and measurement, and aligned to Aviva's risk policies, risks are usually grouped by risk types: underwriting for both life insurance (including long-term health) and general insurance (including short-term health) business, market, credit, liquidity, operational and asset management risk, see sections C.1 to C.6. The types of risk to which the Group is exposed have not changed significantly over the year and remain as those mentioned above.

Risk identification is carried out on a regular basis, embedded in the business planning process, drawing on a combination of internal and external data, covering both normal conditions and stressed environments. The primary sources for identifying risks include risk events analysis, external and internal trends analysis and management information as well as other risk governance processes and input from executive teams and internal committees.

The Solvency II Capital Requirement (SCR) and cover ratio are the bases on which the Group sets Solvency II capital risk appetites and limits. These are used to assess the significance of risks and to appropriately direct resources to their management.

The chart below shows the composition of the Group's undiversified SCR as at 31 December 2019 and 31 December 2018:



Risk profile	Section reference
Life and non-life underwriting risk	C.1
Market risk	C.2
Credit risk	C.3
Liquidity risk	C.4
Operational risk	C.5
Asset Management risk	C.6

The Group's exposure to life underwriting risks, as measured by SCR, increased in 2019 primarily due increased longevity risk in the UK as a consequence of lower interest rates and a lower matching adjustment (as a result narrowing of credit spreads) reducing the impact of discounting.

The Group's most significant exposures to market risk are interest rate risk, equity risk and property price risk. The Group's exposure to market risk fell in 2019 driven by a decrease in interest rate risk. Interest rate risk fell primarily due to the reassessment of the SCR interest rate stress.

Credit risk, including spread risk, measured by SCR has remained stable in 2019. A reduction in credit risk due to the narrowing of sovereign bond spreads in Italy was offset by an increase in spread risk as a result of lower interest rates and a narrowing of spreads over 2019 increasing the exposure and therefore sensitivity to further spread movements.

Section C of this report further describes the risks to which the Group is exposed and how we measure, monitor, manage and mitigate these risks, including any changes in the year to our risk exposures and specific risk mitigation actions taken.

# Valuation for solvency purposes

There have been no material changes in the valuation methods of the Group during the year.

Assets, technical provisions and other liabilities are valued in the Group's Solvency II balance sheet according to the Solvency II Directive and related guidance. The principle that underlies the valuation methodology for Solvency II purposes is the amount for which they could be exchanged, transferred or settled by knowledgeable and willing third parties in an arm's length transaction.

At 31 December 2019, the Group's excess of assets over liabilities was £24,792 million (2018: £24,679 million) on a Solvency II regulatory basis which is £6,107 million (2018: £6,224 million) higher than the equivalent value under IFRS, primarily due to the difference in the valuation of technical provisions. Aviva applies the transitional measure on technical provisions, while also applying matching and volatility adjustments allowable under Solvency II.

The majority of the Group's assets measured at fair value are based on quoted market information or observable active market data. Where the quoted market information or observable market data is not available, an alternative method for valuation is used. Although the Solvency II valuation hierarchy differs from IFRS, the methodology for valuing assets and liabilities measured at fair value remains consistent.

Section D of this report provides further description of the bases, methods and main assumptions used in the valuation of assets, technical provisions and other liabilities for each material asset/liability class. In addition, it also provides an explanation of the material differences between the IFRS and Solvency II bases of valuation.

# Capital management

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 consideration for capital management decisions and requirements for management information, capital monitoring, reporting, forecasting, planning and overall governance.

The primary objective of capital management is to maintain an efficient capital structure using a combination of equity shareholders' funds, preference share capital, subordinated debt and borrowings, in a manner consistent with our risk profile and the regulatory and market requirements of our business.

Group capital is represented by Solvency II own funds. The Group manages capital in conjunction with its SCR, and seeks to, on a consistent basis:

- 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;
- Retain financial flexibility by maintaining strong liquidity, access to a range of capital markets and significant unutilised committed credit lines;
- Manage an appropriate level of debt leverage to ensure an efficient capital structure;
- · Allocate capital rigorously to support value adding growth and repatriate excess capital where appropriate; and
- Operate a sustainable dividend policy with reference to factors including growth in cash flow and capital generation.

The Group calculates its Solvency II position on a regulatory basis and on a 'shareholder view' basis. 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, a number of adjustments are typically made to the regulatory Solvency II position. The Group Solvency II capital position, including these adjustments, is summarised in the table below:

	Own funds 2019 £m	SCR 2019 £m	Surplus 2019 £m	Own funds 2018 £m	SCR 2018 £m	Surplus 2018 £m
Solvency II regulatory surplus as at 31 December	28,822	(15,713)	13,109	27,593	(15,344)	12,249
Adjustments for:						
Fully ring-fenced with-profit funds	(2,501)	2,501	_	(2,635)	2,635	_
Staff pension schemes in surplus	(1,175)	1,175	_	(1,121)	1,121	_
PPE <sup>1</sup>	(403)	_	(403)	_	_	_
Notional reset of TMTP	_	_	_	(127)	_	(127)
Pro forma adjustments <sup>2</sup>	(117)	(75)	(192)	(101)	25	(76)
Solvency II shareholder surplus at 31 December	24,626	(12,112)	12,514	23,609	(11,563)	12,046

<sup>1</sup> A change in regulations announced in December 2019 allows French insurers to place a part of the Provision pour Participation aux Excédents ("PPE") into Solvency II own funds. This is included within Group regulatory own funds but is excluded from the shareholder position. See section E.1.4 for more details.

At 31 December 2019, the total regulatory eligible own funds to meet Group SCR was £28,822 million (2018: £27,593 million), of which £20,854 million (2018: £19,339 million) was represented by unrestricted tier 1 capital. The SCR is calculated using a partial internal model and was £15,713 million (unaudited) at 31 December 2019 (2018: £15,344 million (unaudited)). The regulatory cover ratio was 183% at 31 December 2019 (2018: 180%).

<sup>2</sup> The 31 December 2019 Solvency II position includes three pro forma adjustments that relate to the disposal of FPI (£nil impact on surplus), the disposal of Hong Kong (£nil impact on surplus) and the potential impact of an expected change to Solvency II regulations on the treatment of equity release mortgages (£0.2 billion decrease in surplus as a result of an increase in SCR). The 31 December 2018 Solvency II position includes the pro forma impact of the disposals of FPI (£0.1 billion increase in surplus) and the potential impact of an expected change to Solvency II regulations on the treatment of equity release mortgages (£0.2 billion reduction in surplus as a result of an increase in SCR).

# Movement in Solvency II surplus (shareholder view)

Shareholder view	Own funds 2019 £m	SCR 2019 £m	Surplus 2019 £m
Solvency II surplus at 1 January	23,609	(11,563)	12,046
Operating capital generation <sup>1</sup>	2,257	2	2,259
Non-operating capital generation	198	(570)	(372)
Dividends	(1,222)	_	(1,222)
Share buy-back	_	_	_
Hybrid debt repayments	(210)	_	(210)
Acquired/divested business	(6)	19	13
Solvency II surplus at 31 December	24,626	(12,112)	12,514

<sup>1</sup> Operating Capital Generation (OCG) measures the amount of Solvency II capital the Group generates from operating activities and incorporates an expected return on investments supporting the life and non-life insurance businesses. OCG includes the impacts of new business, earnings from existing business, the impact of capital actions and non-economic assumption changes.

At 31 December 2019, the shareholder view surplus is £12,514 million (2018: £12,046 million) with a cover ratio of 203% (2018: 204%). The movement since 31 December 2018 is mainly due to the beneficial impact from capital generation partially offset by the payment of the Aviva plc dividend and the redemption of the hybrid debt in November 2019.

Non-operating generation is primarily due to the impact of a fall in interest rates, strengthening of Sterling against the Euro, employer contributions to the staff pension scheme and the impact of the transfer of the Ireland branch of the UK business to Ireland following the decision by the UK to leave the European Union partially offset by the narrowing of credit spreads and strong equity market performance in 2019.

Section E of this report further describes the objectives, policies and procedures employed by Aviva Group for managing its own funds. The section also covers information on structure and quality of own funds, calculation of SCR, and includes information on the Group's internal model.

# Section A Business and performance

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# Section A: Business and performance

The 'Business and performance' section of the report sets out the Group's business structure, key operations and financial performance over the reporting period.

# A.1 Business

#### A.1.1 Business overview

Aviva plc, a public limited company incorporated and domiciled in the UK, is the holding company of the Aviva Group. The Group is a leading international savings, retirement and insurance business serving 33.4 million customers. The Group also operates in Europe, Canada and Asia and employs over 31,000 people.

The Group's strategy puts the customer at the heart of what we do and provides clear direction for how we run our business across all our markets. On 20 November 2019, we presented our refreshed strategy, purpose and vision. Our strategy is to simplify Aviva into a leading international savings, retirement and insurance business delivering for our customers, shareholders, communities and other stakeholders. Under our new strategy, we have set out three strategic priorities:

- Deliver great customer outcomes: Our focus is on being the best place to meet our customers savings, retirement and insurance needs.
- Excel at the fundamentals: Our focus is on the core activities of our business: underwriting, claims management, investment performance and cost efficiency.
- Invest in sustainable growth: Our focus is on generating economic returns and long-term value for our shareholders.

We are also reorganising our operating model into five new business divisions effective from 2020:

Investments, Savings	UK Life	General Insurance	Europe Life	Asia Life
& Retirement  Aviva Investors and  UK Savings & Retirement <sup>1</sup>	Annuities & Equity Release, Protection & Heath, Heritage	UK, Canada, Europe, Singapore	France, Italy, Poland, Ireland, Turkey	Singapore, China, India, Indonesia, Vietnam

<sup>1</sup> UK Savings & Retirement is reported within UK Life in 2019.

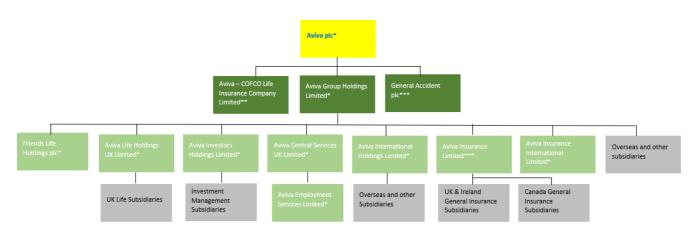
In the 2019 SFCR, we continue to report the results of our businesses by market reporting lines with supplementary information being given by business activity on the basis on which they were managed in 2019. This is also in line with the Group's consolidated financial statements prepared in accordance with IFRS. Those markets are UK Life, Aviva Investors, UK General Insurance, Canada, Europe and Asia. The material Solvency II lines of business are disclosed in section A.2.3.

# A.1.2 Organisational structure of the Group

As a UK listed company, Aviva has adopted a governance structure based on the principles of the UK Corporate Governance Code (the Code). The Group Board has ultimate power over the system of governance which is described in detail in section B of this report. A simplified Group structure as at 31 December 2019 is shown in Chart 1 below. Aviva plc is the holding company of the Group.

A complete list of the Group's related undertakings comprising subsidiaries, joint ventures, associates and other significant holdings along with the country of incorporation, registered address, classes of shares held and the effective percentage of equity owned at 31 December 2019 are listed in note 65 of the 2019 Annual report and accounts and in public disclosure QRT S.32.01 'Undertakings in the scope of the Group' in section F.2 of this report.

Chart 1: Organisational structure of the Aviva Group



Incorporated in England and Wales

<sup>\*\*</sup> Incorporated in People's Republic of China

<sup>\*\*\*</sup> Incorporated in Scotland

Business and<br/>SummarySystem of<br/>PerformanceRisk<br/>GovernanceValuation for<br/>ProfileCapital<br/>Solvency PurposesOther<br/>ManagementInformation

The scope of the entities which make up the Group is consistent between IFRS and Solvency II. However, there are differences in the consolidation approach, where the consolidation under IFRS is driven by the level of control over entities in the scope of the Group, while the consolidation under Solvency II additionally takes into account the business activity of these entities. Differences between the IFRS consolidation and Solvency II consolidation have been presented in Section D 1 Balance sheet – IFRS and SII and D 2 Method of consolidation.

# A.1.3 Significant events in the reporting period

Our financial results are affected by a number of external factors, including demographic trends, general economic and market conditions, government policy and legislation and exchange rate fluctuations. In addition, our business is affected by corporate actions taken by the Group, including acquisitions, disposals and other actions aimed at achieving our stated strategy. The impact of these events on IFRS performance and Solvency II may differ due to their different measurement and recognition criteria.

The following significant events impacted our business during the year:

#### Internal

- In the UK the digital operations of the Group were integrated into the UK General Insurance and UK Life businesses as part of the Group's strategy to simplify our business.
- Part VII transfer of insurance portfolios to Aviva Group's Ireland businesses, as a result of the UK's decision to leave the EU, completed by 29 March 2019.
- In November 2019 the Group announced a reorganisation into 5 new divisions: Investments, Savings & Retirement; UK Life, General Insurance; Europe Life; and Asia Life. From 2020 UK Life will focus on three product lines annuities & equity release, protection and health and heritage. The Investment, Savings and Retirement division, will bring together Aviva Investors, and the modern UK Savings and Retirement business that is currently reported in UK Life.
- Aviva International Insurance Limited (AII) entered into an arrangement with the Group subsidiary companies transacting general insurance business in Canada (collectively referred to as CGI), namely Aviva Insurance Company of Canada, Aviva General Insurance Company, Traders General Insurance Company, Scottish & York Insurance Co Limited, Elite Insurance Company, S&Y Insurance Company and Pilot Insurance Company, to reinsure 25% of their insurance liabilities. The CGI arrangement was entered into on 5 February 2019, with the agreement backdated to take effect from 1 January 2019.
- During 2019, the Aviva Staff Pension Scheme (ASPS) completed a bulk annuity buy-in transaction with Aviva Life & Pensions UK Limited (AVLAP), a Group company. At inception, the buy-in insured approximately 4,300 deferred and 1,500 current pensioner liabilities. A premium of £1,665 million was paid by the scheme to AVLAP. On a Group basis this results in an increase in the contribution to assets, technical provisions and SCR in respect of the transferred business from AVLAP and Aviva Insurance International (via internal reinsurance). The ASPS recognised a transferable plan asset that does not eliminate on consolidation. The plan asset has a lower value than the premium paid but the impact of the ASPS contribution to Group own funds and surplus is minimal due to fungibility restrictions applied to defined benefit staff pension schemes in surplus.
- On 9 October 2018, Mark Wilson stepped down as the Group Chief Executive Officer (CEO). Sir Adrian Montague, the Non-Executive Chairman of Aviva, assumed the role of Executive Chairman while the search for a new Group CEO was undertaken. This process led to the appointment of Maurice Tulloch as Group CEO on 4 March 2019.
- After a period as interim Group Chief Financial Officer (CFO), Jason Windsor, formerly CFO of Aviva UK Insurance, was appointed permanently to the role and also joined the Board of Directors on 26 September 2019.
- A number of Non-Executive Directors retired from the Board; Mike Hawker on 31 March 2019; Glyn Barker and Claudia Arney both on 31 December 2019; and Keith Williams stepped down from the Board on 23 May 2019. Three new Non-Executive Directors have been appointed to Board; Patrick Flynn joined the Board on 16 July 2019 and became Audit Committee Chair on 4 November 2019; George Culmer was appointed as a Non-Executive Director of the Company on 25 September 2019; and Amanda Blanc was appointed to the Board with effect from 2 January 2020.

# **Group Acquisitions and disposals**

- The Group completed minor acquisitions in Canada, the UK and France in 2019. With the exception of the acquisition of an associate in Canada, the acquired entities are all consolidated subsidiaries.
- On 20 November 2019, Aviva announced the sale of its entire 40% shareholding in its Hong Kong joint venture (Blue) to Hillhouse AV Holdings Limited.
- There were no other material transactions within the Group during the period. See section A.5.2 for subsequent events in 2020.

# **Regulatory Changes**

- Following the announcement by the Lord Chancellor on 15 July 2019 to increase the Ogden discount rate from the -0.75% set in 2017 to -0.25%, balance sheet reserves in the UK were calculated using a discount rate of -0.25% at 31 December 2019. This compares to the Ogden discount rate applied at 31 December 2018 of 0.00%. This has resulted in a strengthening of IFRS claims reserves of £45 million. The Ogden discount rate is expected to be reviewed again by the Lord Chancellor within five years.
- A change in regulation announced in December 2019 allows French insurers to place a part of the Provision pour Participation aux Excédents (PPE) into Solvency II own funds. This is included within Group regulatory own funds but is excluded from the shareholder position. See section E.1.4 for more details.
- The PRA agreed to the following revised treatment of future transfers from FP With Profit Sub Fund 40:60 business. The contractual FP 40:60 shareholder transfers at a group level will be treated as unrestricted own funds in the same fashion as the discretionary 90:10 transfers. The value of FP 40:60 transfers will no longer be deducted from the own funds as part of the ring-fenced fund (RFF) restriction. The FP 40:60 transfers will be recognised as unrestricted own funds under Article 80(1) of the Solvency II Delegated Regulations. This change increased own funds by £111 million.

# **Other Significant Events**

- During 2019 interest rates reached record lows in many eurozone economies, requiring further management action in our businesses in
  France and Italy. These included continuing to transform the product mix towards capital light products, interest rate hedging and further
  optimisation of our asset mix.
- On 21 November 2019, the Group redeemed its £210 million 6.875% Step-up Tier One Capital Securities (STICS) in full at the first call date.

# A.1.4 Other information

# Supervisor

The Group's supervisor is the PRA which is part of the Bank of England. Contact details for the PRA are as follows:

Address: 20 Moorgate, London, EC2R 6DA

Telephone number: +44 (0) 20 7601 4444

# **External auditor**

The Group's external auditor is PricewaterhouseCoopers LLP. Contact details are as follows:

Address: 7 More London Riverside, London, SE1 2RT

Telephone number: +44 (0) 20 7583 5000

# **Qualifying holdings**

The Group's shares and the associated voting rights are widely dispersed among institutional and individual investors and therefore there are no qualifying holdings in the Group as defined by Article 13(21) of Directive 2009/138/EC.

# A.1.4.1 Rounding convention

The SFCR is presented in pound sterling rounded to the nearest million which is consistent with the presentation in the IFRS financial statements. The QRTs are presented in pound sterling rounded to the nearest thousand. Rounding differences of +/- one unit can occur.

# A.2 Underwriting performance

# Measurement of performance from underwriting and other activities

At our Capital Markets day on 20 November 2019, we outlined our intention to increase Aviva's focus on economic performance in our financial communication. This reflects the importance of economic metrics in how we manage the business: the allocation of capital and other resources across the Group and the trading decisions we make each day. Economic returns ultimately support a sustainable dividend and our ability to invest to grow the company. Solvency II operating own funds generation, Solvency II return on capital / equity and Solvency II operating capital generation (OCG) are non-GAAP Alternative Performance Measures (APMs) which are used for decision making, to monitor the Group's performance, growth and financial strength as well as for internal performance management. Further information on these Solvency II metrics are outlined in the Other information section of the 2019 Annual report and accounts.

Group adjusted operating profit (operating profit) is a non-GAAP APM that the Group also considers a meaningful measure to stakeholders as it enhances the understanding of the Group's operating performance over time by separately identifying non-operating items which are excluded from operating profit. The various items excluded from operating profit, but included in IFRS profit before tax, are outlined in the Other information section of the 2019 Annual report and accounts.

# A.2.1 Solvency II operating own funds generation, return on capital/equity and operating capital generation

Solvency II operating own funds generation measures the amount of Solvency II own funds generated from operating activities. Operating own funds generation is the own funds component of OCG and follows the methodology and assumptions outlined in OCG. Solvency II return on capital / equity was introduced to measure return generated on shareholder capital at business division and Group level and is used by the Group to assess performance and growth, as we look to deliver long-term value for our shareholders.

		2019		2018
	Operating own funds generation £m	Return on capital / equity <sup>1</sup> %	Operating own funds generation £m	Return on capital / equity <sup>1</sup> %
UK Life and Investments, Savings & Retirement	1,314	9.5%	1,663	11.3%
General Insurance	628	14.0%	532	11.7%
Europe Life	574	10.3%	384	6.9%
Asia Life	187	12.7%	144	9.7%
Group centre costs and Other	(162)	n/a	(403)	n/a
Total Solvency II return on capital	2,541	10.8%	2,320	9.4%
Senior and subordinated debt	(284)		(298)	
Total operating own funds generation	2,257		2,022	
Direct Capital Instruments, Tier 1 notes and preference shares	(72)		(74)	
Total Solvency II return on equity	2,185	14.3%	1,948	12.5%

<sup>1</sup> Solvency II return on capital (unlevered) for the business divisions is calculated as operating own funds generation excluding interest costs divided by opening shareholder Solvency II own funds. Solvency II return on equity for the Group is calculated as operating own funds generation less preference dividends, direct capital instrument (DCI) and tier 1 note coupons divided by opening value of unrestricted tier 1 shareholder own funds.

Solvency II return on equity has increased by 1.8pp to 14.3% over 2019 (2018: 12.5%) mainly driven by:

- In UK Life and Investments, Savings & Retirement, overall return on capital has reduced by 1.8pp to 9.5% largely due to adverse experience on protection business and no benefit from transitional relief on new business. In 2018, new business written contributed to the calculation of transitional measures (in line with clarification issued by the PRA since 2017) but it is no longer applicable to the Group in 2019.
- In the General Insurance business division, return on capital increased by 2.3pp to 14.0% driven by Canada, where benefits from the extensive profit remediation plan put in place towards the end of 2017 are materialising.
- In the Europe Life business division, return on capital has increased by 3.4pp to 10.3%. This was primarily driven by modelling and assumption changes in Italy which are partly offset by a reduction from new business in France and Italy due to the impact of lower interest rates.

Operating capital generation	2019 £m	2018 £m
UK Life and Investments, Savings & Retirement	1,260	1,947
General Insurance	574	647
Europe Life	754	724
Asia Life	60	55
Total market Solvency II operating capital generation	2,648	3,373
Group centre, debt costs and Other	(389)	(175)
Total Group Solvency II operating capital generation	2,259	3,198

Solvency II OCG was £2,259 million for 2019 (2018: £3,198 million).

- The UK Life and Investments, Savings & Retirement OCG has reduced by £687 million to £1,260 million. This is mainly due to adverse experience on the protection business, no benefit from the loss of transitional relief of new business and a reduction in Other OCG, partially offset by new business strain which has reduced over the year due to reinsurance actions taken even though volumes increased. In 2019, Other OCG includes the beneficial impact of longevity assumption changes which is partially offset by other non-economic assumption changes while 2018 primarily included the beneficial impact of both longevity assumption and other non-economic assumption changes.
- The General Insurance OCG reduced by £73 million to £574 million. In Canada, there was an increase of £118 million as benefits from the extensive profit remediation plan put in place towards the end of 2017 are materialising. This is more than offset in the UK, where there has been a reduction of £151 million, primarily due to the alignment of UK digital business costs within the UK General Insurance business and continued investment in our IT infrastructure. Alignment of the UK digital business costs has resulted in an increase in the Solvency Capital Requirement (SCR) due to differential capital treatment for insurance and non-insurance entities.
- The Europe Life OCG has increased by £30 million to £754 million as increases in Other OCG and returns on existing business have been partially offset by the increase in new business strain as a result of the low interest rate environment. In 2019, Other OCG includes the beneficial impact of modelling and assumption changes in Italy as well as increased hedging in France, while other OCG during 2018 was due to assumption changes and a benefit arising from the transfer of pensions business into a supplementary occupational pension fund (FRPS) in France.
- Group centre, debt costs and Other has reduced by £214 million to £(389) million. There has been an increase in OCG due to the reduction of costs as a result of the alignment of UK digital business in UK General Insurance and UK Life and a reduction in programme spend at Group Centre. This has been offset by a reduction in Other OCG as 2018 included the benefit of a model change to vary the volatility adjustment (VA) on France business in the Group SCR.

# A.2.2 Operating profit for the year

Overall, operating profit increased by 6% to £3,184 million (2018 restated¹: £3,004 million). Operating profit can be further analysed by insurance (which includes life and health; general insurance and fund management) and non-insurance activities as outlined in the table below:

Operating profit	2019 £m	Restated <sup>1</sup> 2018 £m
Insurance activities operating profit (Refer to section A.2.3)	3,648	3,712
Non-insurance activities operating loss (Refer to section A.4)	(464)	(708)
Total	3,184	3,004

Following a change in the definition of the Group adjusted operating profit APM, comparative amounts have been amended from those previously reported, and now include the amortisation and impairment of internally generated intangibles. Comparative amounts have been restated resulting in a reduction in the prior period Group adjusted operating profit of £112 million. There is no impact on profit before tax attributable to shareholders' profit.

# A.2.3 Operating profit from insurance activities by geographical region and line of business

The table below sets out the Group's operating profit/(loss) arising from its insurance activities.

				2019				Restated <sup>1</sup> 2018
Operating profit from insurance activities	Life and health £m	General insurance £m	Fund management £m	Total operating profit from insurance activities £m	Life and health £m	General insurance £m	Fund management £m	Total operating profit from insurance activities £m
United Kingdom	1,855	250	_	2,105	1,886	383	_	2,269
Europe <sup>2</sup>	827	154	_	981	807	201	_	1,008
Canada	_	191	_	191	_	27	_	27
Asia <sup>2</sup>	276	(1)	_	275	263	(2)	_	261
Aviva Investors	_	_	96	96	_	_	147	147
Total	2,958	594	96	3,648	2,956	609	147	3,712

<sup>1</sup> Following a change in the definition of the Group adjusted operating profit APM, comparative amounts have been amended from those previously reported, and now include the amortisation and impairment of internally generated intangibles. Comparative amounts have been restated resulting in a reduction in the prior period Group adjusted operating profit of £112 million. There is no impact on profit before tax attributable to shareholders' profit.

Details of non-underwriting activities can be found in section A.4.

#### UK

#### Life and health business

UK Life & health operating profit decreased by 2% to £1,855 million (2018 restated: £1,886 million). Within this, lower profit in protection and our legacy book were offset by higher profit in annuities & equity release and further benefits from changes in longevity assumptions. There was a lower contribution from other items mainly due to the alignment of UK digital business costs within UK Life (which is neutral at Group level).

# General Insurance

UK General insurance operating profit was down 35% at £250 million (2018 restated: £383 million). Excluding an adverse impact of £113 million from alignment of UK digital, operating profit was down 5% at £363 million (2018 restated: £383 million) due to higher expenses reflecting continued investment in IT infrastructure and less favourable prior year reserve releases, partly offset by lower weather costs compared to 2018

# Europe

# Life and health business

Europe Life operating profit increased by 2% to £827 million (2018: £807 million), mainly driven by higher positive inflows from our hybrid savings product in Italy and improved profit in Ireland, partly offset by lower protection profit in France and lower fee income on assets under management in Poland.

# General insurance

Excluding disposals, Europe general insurance operating profit reduced by 23% to £154 million (2018: £199 million) mainly driven by higher large losses and less favourable prior year development in France and the impact of a new motor levy in Ireland.

# Canada

In Canada, operating profit improved by £164 million as the benefits from the extensive profit remediation plans that were put in place from late 2017 earned through, as well as more favourable prior year development and weather costs compared to 2018.

# Asia

In our Asia Life and health businesses, operating profit has increased by 5% to £276 million (2018: £263 million). Excluding FPI and Hong Kong, operating profit increased by 32% to £157 million (2018: £119 million) driven by growth in Singapore and China.

# **Aviva Investors**

Aviva Investors operating profit decreased by £51 million, mainly driven by lower operating revenue in 2019.

# A.2.4 Solvency II line of business

The material Solvency II lines of business by reference to IFRS net written premiums, a component of underwriting performance, are outlined below. The Group's results can be analysed into products which comprise long-term business and general insurance and health, however, the Group's results as set out in section A.2.3 present our health businesses together with our life businesses reflecting how the businesses will be managed in 2020. Detailed information on premiums, claims, changes in technical provisions and expenses by Solvency II line of business and country is presented in public disclosures S.05.01.02 and S.05.02.01 within section F.2.

# Long-term business

Our long-term business segment includes life insurance, participating and non-participating investment business. The Group's long-term business represents 74% (2018: 74%) of total net written premiums. The material long-term Solvency II lines of business pertaining to insurance and participating business for the year ended 31 December 2019 are as follows, based on contribution to long-term business net written premiums:

- Insurance with-profits participation 28% (2018: 30%)
- Other life insurance (mainly annuity and protection business) 17% (2018: 16%)
- Unit-linked or index-linked insurance 52% (2018: 52%)

<sup>2</sup> Comparatives have been restated to reflect the reclassification of non-insurance operations of Europe and Asia to their respective market segments to better reflect the management of the underlying business

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# General insurance and health

Our general insurance and health business represents 26% (2018: 26%) of total net written premiums. The material Solvency II lines of business within the general and health insurance sector based on contribution to general insurance and health net written premiums are as

- Fire and other damage to property insurance 34% (2018: 34%)
- Motor vehicle liability insurance 29% (2018: 30%)
- Other motor insurance 12% (2018: 13%)
- Medical expense insurance 10% (2018: 9%)
- General liability insurance 9% (2018: 9%)

# A.3 Investment performance

# Measurement of investment performance

Net investment income as disclosed in the Group's financial statements represents the Group's overall investment performance and includes investment return attributable to both policyholders and shareholders. Net 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 fair value through profit or loss (FVTPL) investments For certain 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 Group asset portfolio is invested to generate competitive investment returns while remaining within the Group's appetite for market and credit risk.

Our aim is to match the investments held to support a line of business to the nature of the underlying liabilities, while at the same time considering local regulatory requirements, the level of risk inherent within different investments, and the desire to generate superior investment returns, where compatible with this stated strategy and risk appetite.

# A.3.1 Investment performance by asset class

# (i) Net investment income/(expense)

The following table provides an analysis of the Group's net investment income by asset class:

		Equity		Investment		
	Debt securities	securities	Loans	property	investments <sup>1</sup>	Total
Net investment income/(expense) – Total 2019	£m	£m	£m	£m	£m	£m
Dividends	_	3,528	_	1	1,949	5,478
Interest	4,790	· —	1,138	198	(127)	5,999
Net realised gains <sup>2</sup>	3,112	2,575	27	5	4,714	10,433
Net unrealised gains/(losses) <sup>2</sup>	6,135	10,669	1,103	(15)	156	18,048
Rental income less expenses	_	_	_	548	_	548
Other income less management charges <sup>3</sup>	(38)	(3)	(104)	(16)	232	71
Total	13,999	16,769	2,164	721	6,924	40,577

Net investment income/(expense) – Total 2018 restated <sup>4</sup>	Debt securities £m	Equity securities £m	Loans £m	Investment property £m	Other financial investments <sup>1</sup> £m	Total £m
Dividends	_	3,473	_	_	1,408	4,881
Interest	4,207	_	929	_	634	5,770
Net realised gains/(losses) <sup>2</sup>	1,677	4,732	(10)	_	915	7,314
Net unrealised losses <sup>2</sup>	(6,478)	(13,489)	(524)	_	(9,197)	(29,688)
Rental income less expenses	_	_	_	838	_	838
Other income less management charges <sup>3</sup>	_	_	_	_	(27)	(27)
Total	(594)	(5,284)	395	838	(6,267)	(10,912)

Other financial investments include unit trusts and other investment vehicles, derivative financial instruments, deposits with credit institutions, minority holdings in property management undertakings and other investments. Net realised and unrealised gains/(losses) include foreign exchange gains and losses on investments other than trading of £454 million loss (2018: £192 million gain). In addition, net realised and unrealised gains/(losses) include £3 million (2018: £5 million) losses on owner-occupied property taken to the income statement.

Net investment income was £40,577 million (2018 restated: £10,912 million net investment expense). The increase from the prior year is largely driven by the rise of equity markets along with global falls in interest rates and narrowing of credit spreads.

# Analysis of investments

The Group's asset portfolio reflects the nature of the underlying liabilities they back. Asset allocation decisions are taken at legal entity level and in many cases by fund within a legal entity to distinguish between the different objectives of policyholder, participating fund and

Policyholder assets are invested in line with the fund choices made by our unit-linked policyholders and the investment risk is borne by the policyholder. This results in a high allocation to assets such as equity and property. Aviva's shareholder exposure to these assets arises from the fact that the income we receive is a proportion of the assets under management.

Other income less management charges primarily comprises of other investment expenses in respect of investment management fees and net income charge relating to the Group's pension scheme. Following a review of the Group's presentation of consolidated investment funds, comparative amounts have been restated from those previously reported. The restatement has had no impact on the

Participating funds comprise relatively long-term contracts with policyholders participating in pooled investment performance subject to some minimum guarantees. Smoothed returns are used to declare bonuses to policyholders. Aviva's shareholder exposure to these assets arises through the requirement to achieve the guarantees and through a small proportion of the investment return, which is fixed at the outset of the policy. The assets to which policyholder bonuses are linked are invested in line with their expectations with the remainder of the portfolio invested to mitigate resultant shareholder risk. This leads to a higher proportion of equities and property than our other business lines although there are still material allocations to fixed income assets.

Shareholder funds comprise general insurance, health, annuity business, along with other non-profit funds not classified as either policyholder or participating funds. All the investment risk is borne by Aviva's shareholders. The annuity liabilities have a long duration but are also illiquid as customers cannot surrender their policies. The assets held to support these liabilities are principally composed of long maturity bonds and loans. Other shareholder liabilities are generally shorter in duration and the portfolio held to cover these contains a high proportion of fixed income securities.

The following table provides an analysis of the Group's net investment income by policyholder, participating and shareholder exposures.

	- 1	Equity				
Net investment income/(expense) – Total 2019	Debt securities £m	securities £m	Loans £m	property £m	investments £m	Total £m
Policyholder	2,773	14,155	1	160	6,289	23,378
Participating	7,086	2,390	(10)	483	898	10,847
Shareholder <sup>1</sup>	4,140	224	2,173	78	(263)	6,352
Total	13,999	16,769	2,164	721	6,924	40,577

Net investment income/(expense) – Total 2018 restated <sup>2</sup>	Debt securities £m	Equity securities £m	Loans £m	Investment property £m	Other financial investments £m	Total £m
Policyholder Participating Shareholder <sup>1</sup>	11 (411) (194)	(3,899) (1,309) (76)	13 81 301	238 572 28	(5,859) (679) 271	(9,496) (1,746) 330
Total	(594)	(5,284)	395	838	(6,267)	(10,912)

<sup>2.</sup> Shareholder net in includes movements on assets backing annuity and other non-linked business, which is partially offset by corresponding movements in the liabilities which these assets are backing, which are

# (ii) Gains and losses recognised directly in equity

In the Group's IFRS financial statements, changes in the fair value of securities classified as available for sale (AFS) are recognised in other comprehensive income and recorded in a separate investment valuation reserve within equity. 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. 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.

For the year ended 31 December 2019, fair value gains of £39 million (2018: £57 million) were recognised directly in equity in the reporting period and £19 million gains (2018: £78 million gains) has been transferred from equity to profit on disposals.

# A.3.2 Investment performance: other information – investments in securitisations

The Group holds investments in securitisation vehicles that are not originated by the Group in the form of debt securities. These securities consist of residential mortgage backed securities (RMBS), commercial mortgage backed securities (CMBS), asset backed securities (ABS), wrapped credit securities (WCS) and collateralised loan obligation securities (CLO). The majority of debt securities are investment grade held by the UK business.

The fair value of structured debt securities as at 31 December 2019 was £4,746 million (2018 restated¹: £4,662 million)

<sup>2</sup> Following a review of the Group's presentation of consolidated investment funds, comparative amounts have been restated from those previously reported. The restatement has had no impact on the profit for the year or equity.

<sup>1</sup> Following a review of the Group's presentation of consolidated investment funds, comparative amounts have been restated from those previously reported. The restatement has had no impact on the profit for the year or equity

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# A.4 Performance from other activities

The table below presents the operating losses from the Group's non-insurance activities for the year ended 31 December 2019. Non-insurance activities include other Group operations (predominantly the results of our internal reinsurance businesses, the investment return on centrally held assets and other operations), corporate centre costs and Group debt costs and other interest. During the year there were no material leasing arrangements involving the Group as the lessor or the lessee.

Operating losses from non-insurance activities	2019 £m	Restated <sup>1,2</sup> 2018 £m
Other Group operations	(26)	(212)
Corporate centre costs	(183)	(216)
Group debt costs and other interest	(255)	(280)
Total	(464)	(708)

<sup>1</sup> During 2019 the Group adjusted operating profit APM has been revised and now includes the amortisation and impairment of internally generated intangible assets to better reflect the operational nature of these assets. Group adjusted operating profit continues to exclude amortisation and impairment of intangible assets acquired in business combinations. Comparative amounts have been restated resulting in a reduction in the prior period other Group operations operating profit of £25 million. There is no impact on profit before tax.
2 Non-insurance operations relating to Europe and Asia have been reclassified to Europe Life, Asia Life and General Insurance to better reflect the management of the underlying businesses.

# Analysis of the operating profit from non-insurance activities

# Other Group operations

Total losses in relation to other Group operations was £26 million (2018: £212 million) which includes net expenses of £15 million (2018 restated: £180 million) in relation to the Group's UK digital business. The reduction of £165 million from 2018 reflects the alignment of the UK digital business with the UK Life and UK General Insurance businesses during the year.

# Corporate centre and Group debt costs and other interest

Corporate centre costs of £183 million (2018: £216 million) decreased by £33 million mainly due to lower Group led project costs partly offset by an increase in central spend and share award costs. The reduction in Group debt costs and other interest by £25 million to £255 million (2018: £280 million) is largely due to the redemption of two subordinated debt instruments in full at their first call date in 2018.

# A.5 Any other information

# A.5.1 Analysis of the Group's adjusting items

The Group's IFRS profit before tax for the year was £3,374 million (2018: £2,129 million). As discussed in section A.2 operating profit excludes adjusting items before tax of £(190) million (2018 restated: £875 million) details of which can be found in the Other information section of the 2019 Annual report and accounts.

# A.5.2 Subsequent events

- On 21 January we announced that Sir Adrian Montague had informed the Board of his intention to retire as Chairman of the Company in 2020 once a successor has been appointed.
- In March 2020 we announced the sale of our 50% shareholding in our Indonesia Joint Venture PT Astra Aviva Life to our joint venture partner, PT Astra International Tbk. The sale is expected to complete in Q4 2020.
- Further information on the impact of the COVID-19 global pandemic is contained within section F.6.
- On 8 April 2020, the Board of Directors agreed to withdraw its recommendation to pay the 2019 final dividend to ordinary shareholders in June 2020. The Board of Directors expects to reconsider any distributions to ordinary shareholders in the fourth quarter of 2020. This decision was taken in the wake of the unprecedented challenges COVID-19 presents for businesses, households and customers, and the adverse and highly uncertain impact on the global economy. Regulatory authorities, including EIOPA, the PRA and regulators of other Aviva subsidiaries, have responded by publicly urging restraint on dividend payments by insurers to shareholders. In light of the significant uncertainties presented by COVID-19, the Board agreed with our regulators that it is prudent to suspend dividend payments at this time.

# Section B System of governance

# In this section

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# **Section B: System of governance**

The 'System of governance' section of the report sets out information regarding the system of governance in place within the Group.

Details of the structure of the undertaking's administrative, management or supervisory body (AMSB, defined by the Group as the Aviva plc Board and Board Committees) are provided, in addition to the roles, responsibilities and governance of Aviva's key control functions (defined as the risk, compliance, internal audit and actuarial functions). Other components of the Group's system of governance are also outlined, including, but not limited to, the risk management system and internal control system implemented by the Group.

# **B.1** General Information on the system of governance

# B.1.1 Overview of the AMSB and the Group's system of governance

# Role and responsibilities of the Board

The Board is collectively responsible for promoting the long-term, sustainable success of the Group through delivering excellent outcomes for our customers, seeking to generate value for shareholders whilst fulfilling our responsibilities to our stakeholders and contributing positively to the societies in which we operate. One of the Board's key roles is to determine our shared purpose and to set and uphold the Group's values, standards and ethics which together create our corporate culture. We recognise that there is a clear link between our culture and our conduct, both with regards to our customers and to the way in which governance operates in the Group, and our policies, processes and behaviours in relation to these issues are closely monitored by the Board. The Board is also responsible for setting the Group's risk appetite and monitoring the operation of our controls framework. It also seeks to maintain an appropriate dialogue with shareholders on strategy and remuneration.

The Board is responsible for 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. 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 emerging and principal risks facing the Company, including those that could impact the Group's business model, future performance, solvency and liquidity. In 2019 the Risk Committee reviewed a number of emerging risk scenarios and the management actions and mitigation to address them. These included the decision for the UK to leave the European Union (regular updates), UK political risk, US-China trade war, the credit cycle, systemic cloud risk, harmonisation of European conduct regulation, pension tax relief, risks posed by climate change and other emerging risks and sources of market uncertainty.

As at the date of this report, the Board was comprised of the Non-Executive Chairman, two Executive Directors and six independent Non-Executive Directors (NEDs). A number of changes to our Board composition were made during 2019 in addition to the appointment of Maurice Tulloch as Chief Executive Officer (CEO). Jason Windsor was appointed as Group Financial Officer (CFO) after a period as interim CFO and was also appointed to the Board of directors on 26 September 2019. After nine years of distinguished service including as Chair of the Risk Committee, Mike Hawker retired from the Board on 31 March 2019. Following his appointment as Chairman of the Royal Mail, Keith Williams stepped down from the Board on 23 May 2019. On 31 December 2019, Glyn Barker and Claudia Arney both retired from the Board; Glyn after eight years including a period as Senior Independent Director and Claudia to focus on her expanded non-executive roles elsewhere. The Board welcomed three Non-Executive Directors to our Board this year. All with deep knowledge and experience of the financial services industry. Patrick Flynn, previously Chief Financial Officer of both ING and HSBC Insurance joined our Board on 16 July 2019. Patrick became Audit Committee Chair on 4 November 2019. George Culmer was appointed as a Non-Executive Director of the Company on 25 September 2019, having been Chief Financial Officer of Lloyds Banking Group and RSA Insurance Group plc. George assumed the role of Senior Independent Director following the departure of Glyn Barker. We also announced the appointment of Amanda Blanc, with effect from 2 January 2020. Amanda was previously CEO of AXA UK & Ireland and CEO, EMEA & Global Banking Partnerships at Zurich Insurance Group.

Following an update to the Board's Terms of Reference during 2019 to reflect the provisions of the 2018 UK Corporate Governance Code, and consistent with the Senior Managers and Certification Regime (SMCR), amended role profiles have been created for the Non-Executive Chairman, SID, Group CEO, Group CFO and Non-Executive Directors which are all available at www.aviva.com/about-us/roles. A profile for the Executive Chairman was in place during the period from October 2018 when our former CEO stepped down until the appointment of Maurice Tulloch as Group CEO on 4 March 2019. Sir Adrian Montague occupied that role as Executive Chairman during this period. The Non-Executive Chairman is tasked with leadership of the Board, setting its agenda and ensuring its effectiveness, and enabling the constructive challenge of the performance and strategic plans of the Executive Directors by the Non-Executive Directors. The Chairman also plays a key role in working with the Board to establish our culture, purpose and values. The Group CEO is the senior executive of the Company and has overall accountability for the development and execution of the Group's overall strategy in line with the policies and objectives agreed by the Board.

In order to ensure there is a clear division of responsibilities between the running of the Board and the running of the business, the Board has identified certain 'reserved matters' for its approval. In relation to all other matters, unless they are specifically reserved for shareholder approval in a general meeting, the Board delegates responsibility for these to our Group CEO, who then delegates responsibility for specific operations to members of the Aviva Leadership Team (ALT), comprised of our most senior managers from across the business.

With effect from 1 January 2020, certain amendments were made to the structure and defined responsibilities of our suite of Board committees. To better align with our strategy to deliver great customer outcomes we redefined the remit of the Governance Committee around customer and customer conduct issues and renamed this committee the Customer, Conduct and Reputation Committee (CCRC). This is also aligned to our refreshed purpose, to ensure our actions in every part of the business are fully focused on consistently earning customers' trust as the best place to save, retire and insure. To provide more time for the CCRC to consider the customer, we expanded the remit of the Nomination Committee to cover a broader range of governance issues, including subsidiary governance and oversight of the Aviva governance framework, which had previously been considered by the Governance Committee and renamed this the Nomination and Governance Committee (NGC). The NGC will continue to play a key role in succession planning for both our Executive and Non-Executive Directors as well as having oversight of our governance framework and regulatory environment.

During the year the remits of the Audit and Risk Committees were reviewed and clarified. The Audit Committee is responsible for overseeing internal controls over financial reporting while the Risk Committee is responsible for the oversight of other areas of internal controls. The Committee's Terms of Reference were updated to reflect this clarification in oversight of internal controls.

The new remits of the Committees are outlined below.

# Committee's purpose

Name of Committee	Committee Purpose
Audit Committee	Assists the Board in its oversight of financial reporting by assessing the integrity of the Company's financial statements and related announcements; monitoring the adequacy of controls over financial reporting; monitoring the Group's whistleblowing provisions; and monitoring the independence and performance of the Internal Audit function and the External Auditors.
Nomination and Governance Committee	Assists the Board in its oversight of Board composition; Board and senior executive succession; talent development; diversity and inclusion initiatives; operation of the Group governance framework; Aviva's subsidiary governance principles; and the regulatory control environment.
Customer, Conduct and Reputation Committee	Assists the Board in its oversight of customer, conduct and reputation issues including operational risks related to customer and business conduct; the Group's customer strategy and customer conduct obligations; oversight of the Group's brand; reputational risk profile; data governance and data privacy; and corporate responsibility.
Remuneration Committee	Assists the Board in its oversight of remuneration by reviewing the Group Remuneration Policy, the Directors' Remuneration Policy, and recommending remuneration packages for the ALT. Works with the Board Risk Committee to ensure that risk management is considered in setting the Remuneration Policy and promoting a risk awareness culture through the alignment of incentive and rewards with risk management.
Risk Committee	Assists the Board in its oversight of risk by assessing the effectiveness of the Group's risk management framework, risk strategy, risk appetite and risk profile; the methodology used in determining the Group's capital requirements and stress testing these requirements; assessing the adequacy of the Group's system of non-financial reporting controls; its cyber strategy and compliance with prudential regulatory requirements.

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 'three lines of defence model' and roles and responsibilities of key functions

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 (RMF) and embedding of the risk culture.

# The first line: management monitoring

The Aviva Leadership Team 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.

# The second line: risk management, compliance and actuarial functions

The risk 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. As the business responds to changing market conditions and customer needs, the risk function regularly monitors the appropriateness of the Group's risk policies and the RMF to ensure they remain up to date. The Actuarial function is accountable for the Group wide actuarial methodology, reporting to the relevant governing body on the adequacy of reserves and the appropriateness of the Solvency II internal model, 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. Risk management, actuarial and elements of the compliance function form Aviva's 'global risk' function. See sections B.3, B.4 and B.6 for further details on the roles, responsibilities, authority, resources, independence and reporting lines of the Group's risk management, compliance and actuarial functions respectively, and how their independence is ensured.

# The 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, Nomination and Governance and Risk Committees, business unit audit committees and the Board. Refer to section B.5 of this report for details on the roles, responsibilities, authority, resources, independence and reporting lines of the Group's internal audit function.

# Aviva's system of governance during 2019

There have been no material changes in the system of governance during 2019. However, with effect from 1 January 2020, certain amendments were made to the structure and defined responsibilities of our suite of Board committees as noted above.

# Implementation and assessment of system of governance Risk management framework

The 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. The RMF has been in place for the year under review and up to the date of the approval of this report. 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.

# 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, 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 2019, the Group was focused on reinforcing its operational resilience by completing major control improvements in a number of areas, including disaster recovery capability and the strengthening of its cyber security controls, through continued investment in the Group's IT estate. More broadly the Group seeks to continue to monitor and further enhance its control frameworks across the business, including change management, financial crime prevention and data privacy. Further information on the internal control system is provided in section B.4.1.

# Assessment of effectiveness

Each business unit CEO (Chief Executive Officer) and CRO (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 2019, this has been supported by the application of the Group's operational risk and 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 Risk and Audit Committees and the Board on a regular basis and are summarised annually to enable them to carry out an effectiveness assessment.

The Risk Committee, on behalf of the Board, has reviewed the effectiveness of the systems of internal control and risk management. This review occurs annually. In addition, Internal Audit plays a significant role in contributing to the routine ongoing assessment of the Group's Risk & Control framework. There has been regular reporting to the committees 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 Audit and Risk Committees refer to the need to sustain the embedding of controls in a number of areas where significant progress has been made in 2019, such as cyber security, risk management through major change, UK Insurance complaints management and IT disaster recovery; and the need to continue to make further improvement in a number of other areas, such as IT resilience, financial crime prevention, data management, risk culture and ongoing improvements in Canada, France and Ireland. The Risk Committee, on behalf of the Board will continue to monitor progress throughout 2020.

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 work with these entities to understand how their risks are managed and to align them, where possible, with our framework.

# **B.1.2 Remuneration policy**

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 Group's approach to sound and effective risk management. Aviva's remuneration policy is aligned to the Group's strategy, incentivises achievement of Aviva's annual business plan and longer-term sustainable growth of the Group and differentiates reward outcomes based on performance behaviour that is consistent with Aviva values. Variable remuneration can be zero if performance thresholds are not met.

Our Remuneration Policy was approved by shareholders at our AGM on 10 May 2018 and will apply for period of up to three years. The full and definitive Policy is therefore set out in our 2018 Annual report, which can be found on our website at https://www.aviva.com/reports/

# **B.2 Fit and proper policy**

# Description of specific requirements concerning skills and knowledge

For persons responsible for running the undertaking or responsible for key functions an assessment of fitness and propriety must consider their allocated responsibilities and skills and experience across the following areas:

- Insurance and financial markets;
- Business strategy and business models;
- Systems of governance;
- Financial and actuarial analysis where applicable to the role;
- Regulatory framework and requirements; and
- Any skills relevant to that role.

The Nomination Committee identifies the skills and experience that it would like to have at Board level. A skills matrix for Board members and the Company's executive management has been developed and it supports the Committee's discussions during the Board and committee appointment process. The skills matrix sets out the expertise and experience of each Board member and the Aviva Leadership Team (ALT) and assists the Committee in identifying those who possess the desired skills and experience to join the Board and its committees, both now and in the future.

For the Group's key functions, prior to appointing an individual into a key function role each local business unit will ensure that the relevant skills and experience have been identified and agreed for the role. This is achieved by engaging internally, and where necessary externally, with relevant individuals in each market/specialism to define the skills and experience required for each key function role. With the diverse nature of the Group's business, these requirements can vary across each role and across the markets in which Aviva operates. These individual key function role skills and experience requirements and qualifications where applicable, are captured within individual role descriptions for each key function role.

# Description of policies and processes for assessing fitness and propriety

Aviva has policies in place to ensure that individuals employed within the Group or acting on behalf of the Group are both 'fit' and 'proper'. In line with the Prudential Regulatory Authority's (PRA) fit and proper requirements for individuals subject to the Senior Manager and Certification Regime (SMCR), this means:

- Fit as part of recruitment and employee screening, an individual's career history will be assessed and validated to establish whether an individual's skills and knowledge are appropriately matched to the role.
- Proper checks are in place to ensure that an individual is honest, of good reputation, has integrity and is financially sound.

At Aviva the governance over the fitness and propriety (F&P) of individuals cuts across the employee lifecycle including recruitment, performance management and training. To ensure that Aviva protects itself against employing individuals who potentially could threaten our people, customers, properties, facilities or reputation, the majority of F&P activities take place within recruitment and more specifically in pre-employment screening.

To support the recruitment activity for all staff across the Group, a policy to apply a minimum set of basic screening requirements has been agreed and implemented. Additional enhanced screening requirements and ongoing F&P requirements are also applied for individuals who fall within the following categories, as required by Solvency II requirements:

- Persons running the undertaking;
- Persons with roles in Administrative, management or supervisory body; and
- Persons responsible for key functions.

Ongoing F&P checks include an annual confirmation by key function holders that their role profile is accurate and correct, that they understand their duties and obligations and have been discharging their responsibilities in accordance with the principles and standards. Bi-annually key function holders are also asked to re-confirm their role profile is accurate, and there has been no change to the answers given in their questionnaires, since their last annual declaration.

Compliance with the initial and ongoing F&P minimum requirements is reported on a half yearly basis by the Chief Executive Officer of each market to the Group people function.

# B.3 Risk management system including the own risk and solvency assessment

# B.3.1 Overall risk management framework (RMF): strategies, processes and reporting procedures

The RMF in Aviva forms an integral part of the management and Board processes and decision-making framework across the Group. The key elements of our RMF 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 (IMMMR) 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. Further details of each risk type are set out in detail in Section C of this report.

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 CEOs 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.

Risk appetites requiring management action if breached are also set for interest rate and foreign exchange risk (calculated on the basis of 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 (ALCO), which focuses on business and financial risks, and the Operational Risk Committee (ORC) 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 above. We work with these entities to understand how their risks are managed and to align them, where possible, with Aviva's framework.

# **B.3.2 Risk function**

The risk function is responsible for the design and implementation of the RMF described above in section B.3.1, in addition to the design, implementation and validation of Solvency II capital models requiring regulatory approval. Material risks identified through this process are reported to the Board, together with any other specific information concerning risk requested by the Board. A further responsibility is to support the Board and first line management to ensure the effective operation of the RMF, through the provision of specialist analysis and quality reviews, an aggregated view of the risk profile, and an assessment of the key risks associated with the business's strategy, major projects, strategic investments and other key decisions. All key decisions must have the support of the risk function before proceeding and the Group CRO has the power of veto.

# Reporting lines

The Group CRO leads Aviva's risk function, supported by CROs within the business units. The principal committees that oversee risk function are the Risk Committee, the Audit Committee, and the Customer, Conduct and Reputation Committee.

# Authority and resources of the risk function

The risk function has authority to review all areas of the Aviva Group and business units and has full, free and unrestricted access to all activities, records, property and personnel necessary to complete its work. The scope of risk function's activities extends to all legal entities, joint ventures and other businesses, partnerships, outsourcing and reinsurance arrangements. In the case of some joint ventures, contractual arrangements may limit the scope of risk function's activities. In line with Aviva's remuneration business standard, the performance and remuneration of risk function staff is assessed against functional objectives that are independent of financial key performance indicators. Taken together, the measures support the independence of the risk function.

# B.3.3 Integration of risk management into the decision making processes

Sections B.3.1 and B.3.2 explain how risk management is integrated into the organisational structure and the decision-making process. To further support the role of risk management in decision making processes, the role of the 'first line' is critical as part of the 'three lines of defence model'. ALT members and each market Chief Executive Officer are responsible for the implementation of Group strategies, plans and policies, the monitoring of operational and financial performance, the assessment and control of financial, business and operational risks and the maintenance and ongoing development of a robust control framework and environment in their areas of responsibility. Chaired by the Chief Capital Officer (CCO) the ALCO assists the Chief Financial Officer (CFO) to meet his responsibility to manage our Group's balance sheet and liquidity within risk appetite. It also provides financial and insurance risk management oversight. The Operational Risk Committee was chaired by the Group CRO in 2019. It supports the first line owners of key operations in overseeing the Group's operational risk profile, monitor specific operational and conduct risks and the risks impacting the Group's reputation and take appropriate action as and when required.

# B.3.4 Risk management system: Own risk and solvency assessment (ORSA)

The Group's ORSA comprises all processes and procedures employed to identify, measure, monitor, manage and report the short-term and long-term risks Aviva faces or may face, and determine its own funds necessary to ensure that Aviva's overall solvency needs are met at all times. The ORSA underpins the consideration of risk and capital implications in key decisions and, in particular, in strategy setting and business planning. The goal of the ORSA is to provide a continuous and forward-looking assessment of the short-term and long-term risks that the business faces, or may face, ensuring that the Group's solvency requirements are met at all times.

The ORSA is a continuous and dynamic process the outcomes of which are reported to the senior management and the Board or its sub-committees throughout the year. It comprises a number of elements of the RMF which are embedded in the business through the requirements of supporting risk policies and business standards around capital allocation, strategy, planning and stress testing.

In combination, these elements create a holistic overview of the risk that may impact the business, and which should be taken into account by the management of business units in day-to-day decision-making. These ORSA processes provide the Board with insights on the key risks and current and future capital requirements of the Group and legal entities.

Consistent with the 'three lines of defence model', CEOs are responsible for the majority of the underlying ORSA processes set out above. The risk function, however, is responsible for the design of the RMF (which includes the ORSA), as well as specifically the top down risk assessment process, independent model validation and the Annual ORSA Report.

# B.3.4.1 Management review and approval of the ORSA

The output from the ORSA processes is reported to the Aviva plc Board and the Board Risk Committee regularly during the year. The ORSA Report brings together and summarises a high level description of the key components of ORSA and key developments and outcomes during the year. The ORSA Report is produced annually and may be updated in the event ORSA triggers are met as defined by the Group's ORSA Policy, for example in the event of an actual or potential material change in the Group's risk profile and own funds.

# B.3.4.2 Determination of own solvency needs

The Board has approved that for the purpose of ORSA, capital resources and requirements are measured on the basis of Solvency II requirements for determining Solvency II own funds and Solvency II capital requirement (SCR).

# B.3.4.3 Interaction between capital management and risk management

Solvency II capital (as a risk based capital measure) is embedded at the heart of the Group's risk and capital evaluation and is used as a key input to a wide range of business and strategic decisions. The RMF, sets out the areas where businesses are expected to use Solvency II capital management information as part of their decision-making and risk management processes. This ensures that requirements to use Solvency II capital are embedded within the instructions of how the relevant processes (including, but not limited to, asset liability management, strategy and planning) are to be performed. Solvency II capital is calculated at a business unit level using either the Group's internal model or through the Solvency II standard formula calculation, and aggregated to determine the Group's SCR.

# B.3.5 Governance over the Group's internal model

The Group's Solvency II model and data governance business standards and associated guidance, manuals, logs and reports, are part of Aviva's overall RMF. These ensure that our businesses operate in accordance with Solvency II requirements within a controlled environment when developing internal model methodologies or assumptions, and when running processes and systems.

The model governance business standard sets out the minimum business controls and objectives to demonstrate that the internal model remains fit for purpose (including clear roles and responsibilities, model governance, weakness and limitation management, results validation etc.) and has not materially changed during the reporting period. The data governance business standard details the relevant business controls and objectives to ensure completeness, accuracy, appropriateness, and consistency of the data supporting the internal model results production. Both standards are key elements of Aviva's governance framework.

The Group and legal entity Board Risk Committees (or delegates) are responsible for approving major internal model changes before submission to the College of Supervisors. We anticipate one model change application a year (around June). The quarterly model change reports and supporting evidence provide the required information to support the Board Risk Committee and the College of Supervisors' approval when required.

The Group CRO is the ultimate internal model owner. In practice the day-to-day responsibilities are delegated to the Group and business unit Chief Risk Actuaries, as they have the accountability to give assurance to the Group and legal entity Boards that Aviva's internal model is fit for purpose on an ongoing basis; adequately reflects Aviva's risk profile; takes into account new information as it becomes available and is accurate and works effectively. This enables the Boards to conclude whether the internal model is fit for purpose while also ensuring it is used to provide information for important strategic and business decisions; capital management; business planning; risk mitigation; investment allocation and product development.

The internal model independent validation review (as described further below) also allows an opinion to be provided to the Group and legal entity Boards whether the internal model is suitably accurate and fit for purpose and whether approval is recommended. Since Aviva's internal model application approval, work has continued to refine the model change process and update the Solvency II model governance business standard in accordance with the PRA and the College of Supervisors' feedback. This business standard clarifies how changes or updates to our internal model should be treated to ensure appropriate documentation, validation and governance can be applied before implementation for regulatory reporting.

# Validation processes

As a key part of Aviva's capital assessment and capital management, Aviva's internal model is rigorously validated using a series of tests. This suite of tests includes both validation of the individual calibrations and methodologies underlying the model, and validation of the model using its results. The validation tests applied comprise both mathematically defined tests and those based on qualitative judgement, to ensure that the model and its components are both accurate and reflect management opinion. Key tests include back-testing and sensitivity testing. The validation tests are run, documented and assessed against criteria set by the actuarial function at both a legal entity and a Groupwide level, with the results made available to the relevant Group and legal entity Boards (or delegate) and committees.

In addition, Aviva performs a separate and independent internal model independent validation review to provide an opinion to the Group and legal entity Boards whether the internal model is suitably accurate and fit for purpose, and whether approval is recommended. Business unit CROs define the scope and approach for each independent validation exercise via the internal model independent validation business standard

# **B.4 Internal control system**

# B.4.1 Description of the internal control system

Internal controls facilitate effective and efficient business operations, the development of robust and reliable internal reporting and compliance with laws and regulations.

The internal control business standard sets out Aviva's required controls for effective internal control across the Group. These required controls are split along five principles:

- Appropriate tone from the top: Businesses ensure that there is an appropriate culture ('tone from the top'). An appropriate culture includes the effective management of exposures, adequate resourcing, effective communication, malpractice reporting, a business ethics code that employees sign up to on an annual basis, and a commitment to integrity, ethical behaviour and compliance.
- An organisational structure exists that supports the systems of internal control: Businesses have implemented an organisational structure
  which facilitates the system of internal control. This includes the effective operation of an adequately resourced 'three lines of defence
  model'; appropriate and proportionate segregation of duties; a clear system of delegated authorities; clearly defined roles and
  responsibilities for staff and the consideration of risk management and control responsibilities when setting objectives for and reviewing
  the performance of all staff.
- Implementation of a risk management framework: Businesses have implemented Aviva's risk management framework. This includes:
- Applicable risk policies;
- Applicable business standards;
- Consistent identification, measurement, management, monitoring and reporting of all key risks;
- Documentation of agreed action plans for risks out of tolerance/appetite; and
- Consideration of alternative responses where risks are not directly controllable by management actions.
- Effective controls and monitoring: Businesses ensure that there are effective controls for each core business process and that these processes are monitored and reported upon regularly.
- Risk oversight: A risk oversight process has been established that provides adequate challenge to the completeness and openness of internal control and risk assessment. Where a committee structure is put in place to support this work then all committees have defined terms of reference and appropriate membership, with proceedings adequately recorded and actions followed up.

# **B.4.2 Compliance function**

The primary purpose of the compliance function is to assess and manage the business' exposure to regulatory risk. The compliance function is an integral part of Aviva's RMF and constitutes a key part of the Group's corporate governance, including relationships with the FCA and the PRA, and other regulatory bodies.

Three key processes comprise Aviva's legal and regulatory compliance activity:

- Oversight of conduct and regulatory compliance is performed by the compliance function and includes activities such as:
  - Setting conduct and regulatory risk framework;
  - Providing advice, support, guidance and challenge on conduct and effective regulatory compliance (including monitoring related regulatory developments); and
  - Oversight of conduct and regulatory engagement, as well as financial crime regulatory engagement on behalf of the financial crime function.
- Financial crime risk management (including monitoring related legal and regulatory developments), is performed by the financial crime risk function and includes activities such as:
  - Setting financial crime risk policy framework; and
  - Providing advice, support, guidance and challenge on financial crime risk.
- Legal developments monitoring is performed by the legal and company secretarial function.

Through these processes the compliance, financial crime and legal functions also take responsibility for reporting information to the Board and its committees.

# Reporting lines

Responsibility and reporting lines for the compliance activities and processes noted above are as follows:

- The Group CRO has overall responsibility for conduct, financial crime and regulatory compliance activity. At a business unit level, in most cases, the business unit CROs are also responsible for conduct, financial crime and regulatory compliance activity throughout the year; and
- The Group General Counsel is responsible for monitoring legal developments, supported by business unit General Counsels.

At the Board level compliance (except for prudential regulatory risk) is oversighted by the CCRC, whose main purpose is to oversee the 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 Group's approach to corporate responsibility. Compliance with prudential regulatory requirements is oversighted by the Board Risk Committee.

# Authority and resources of the compliance function

Those carrying out compliance activities have authority to review all areas of the Group and business units and have full, free and unrestricted access to all activities, records, property and personnel necessary to complete their work (where appropriate). The scope of compliance function's activities extends to all legal entities, joint ventures and other businesses, partnerships, outsourcing and reinsurance arrangements. In the case of some joint ventures, contractual arrangements may limit the scope of compliance function's activities.

# **B.5 Internal audit function**

# Role and responsibilities

Internal Audit (IA) provides independent and objective assurance designed to add value and improve Aviva's operations. IA does this by assessing whether all significant risks are identified and appropriately reported by management and the Risk function to the Board and executive management; assessing whether they are adequately managed; and by challenging executive management to improve the effectiveness of governance, risk management and internal controls.

# B.5.1 Independence and objectivity of the internal audit function

IA must be independent from management at all times in order to be effective in performing its activities. The arrangements to protect the independence of IA are set out below:

- The Chief Audit Officer (CAO) has a direct reporting line into the chair of the Group Audit Committee (GAC) and a functional reporting line to the CEO. The CAO also has direct and unlimited access to the Group Board Chairman, the Chairman of the GAC, the Chairman of the Group Risk Committee (GRC), the Chairman of the Customer, Conduct and Reputation Committee (CCRC) and the chairs of business unit Audit Committees.
- All IA directors working either in the UK or international operations report directly to the CAO and form part of IA (except where IA services are provided by the joint venture partners), and have a dotted reporting line to the local Audit Committee Chairman.
- The Chair of GAC is responsible for recommending the appointment and removal of the CAO to the Board. Board Audit Committees for business units have a duty to recommend the appointment or dismissal of the CAO to the respective business unit Board and to participate, jointly with the CAO or designee, in the determination of the objectives of the CAO and the evaluation of their levels of achievement, including consultation with the CEO. IA will provide to the Group and business unit Audit Committees an annual confirmation of its independence, supported by an independence declaration form signed by all members of internal audit staff.
- Staff working in IA have no direct responsibility or authority over any operational activities reviewed and should not relieve others of such responsibilities, and a formal policy is operated rotating staff to ensure that independence is maintained.
- IA staff who previously worked in Aviva Group, but outside of IA, will not perform or manage reviews in the business area for which they were previously responsible for a period of at least one year after the end of their role within the business. This excludes similar business areas in other legal entities or operating units. Internal auditors on rotation from a business unit will not perform or manage reviews in the business area for which they were previously responsible.

# B.5.2 Authority and resources of the internal audit function

IA is authorised to review all areas of the Group and has full, free, and unrestricted access to all activities, records, property, and personnel necessary to complete their work. The scope of IA activities extends to all legal entities, joint ventures and other business partnerships, outsourcing and reinsurance arrangements, other than where the audit capabilities of the joint venture counterparty are deemed to be sufficient by the CAO, in which case the joint venture IA services may be provided by the joint venture partner. The CAO shall propose a budget which ensures that IA has sufficient skills and resources to discharge its responsibilities.

# **B.6 Actuarial function**

# Role and responsibilities

The actuarial function is accountable for 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. As the day-to-day owner of the Group's internal model, the actuarial function also has responsibility for ensuring that the Group's internal model remains fit for purpose at all times.

The independence of the actuarial function is derived through its membership in the wider global risk function. Appointment of the Group Chief Actuary and the setting of his/her objectives and the evaluation of his/her performance is made by the Group CRO. In addition the actuarial function works closely with the Group finance function to agree a number of principles in respect of the calculation of technical provisions (best estimate liabilities) and capital requirements to further ensure independence.

The Group Chief Actuary leads Aviva's global actuarial function, supported by Chief Actuaries within the business units. The Group Chief Actuary's reporting line is through the Group CRO where the actuarial function combines with the risk function and elements of the compliance function to form global risk, supported by the CRO's membership of the ALT and attendance at the Board Risk and Board Audit Committees. The CRO plays a key role as a senior executive with overall responsibility for oversight of risk function, helping to increase attention of senior management and the Board to risk considerations and implementing consistent risk management policies and practices across the organisation.

Group level committees are in turn supported by similar governance structures in the business units. Each business unit and regulated legal entity either has a Board level risk committee or, if necessary on grounds of proportionality, ensures that sufficient time on the Board's agenda is allocated to issues which would otherwise be covered by a risk committee. Business unit actuarial functions are required to confirm to the Group actuarial function the appropriate use of methodologies and underlying models, assumptions made in the calculation of provisions

# Authority and resources of the actuarial function

The actuarial function has authority to review all areas of the Group and has full, free and unrestricted access to all activities, records, property and personnel necessary to complete its work. The scope of actuarial activities extends to all legal entities, joint ventures and other businesses, partnerships, outsourcing and reinsurance arrangements. In the case of some joint ventures, contractual arrangements may limit the scope of the actuarial function activities. All persons employed by the actuarial function in a defined actuarial role, are subject to the Group's fit and proper minimum requirements to ensure they have the required skills and knowledge to comply with their role and responsibilities.

# **B.7 Outsourcing**

The Aviva Procurement and Outsourcing Standard contains information on Aviva's outsourcing policy, setting out the relevant responsibilities, objectives, processes and monitoring arrangements to be applied in cases of outsourcing, all of which shall be consistent with the overall business strategy. The standard applies equally to any externally or internally (intra-group) outsourced activity, and is benchmarked against relevant regulatory expectations. The objective of the standard is to ensure that minimum control objectives and controls for supplier related activities are followed by all Aviva businesses, to ensure that supply risk is managed effectively, customers are being treated fairly and continue to receive good outcomes, as well as mitigating potential financial, operational, contractual and brand damage caused by inadequate management. The standard requires a global Outsourcing Landscape document to be produced bi-annually which captures details of all critical or important outsourced operational functions and activities.

The standard applies to all staff involved in supplier related activities. It provides clarity to businesses on the definition of outsourcing, including where activity is delegated to an intermediary, and whether a function or activity outsourced is assessed as critical or important.

Aviva's Board Risk Committee approves the control objectives and controls in the standard which cover the following areas:

- Supply governance business oversight of operational performance for sourcing and supply management activities;
- Sourcing how a service provider of suitable quality is selected;
- Supplier contracting and approvals financial, commercial and legal approval of contracts;
- Supplier management risk based approach to management of supply contracts; and
- Business contingency and exit plans a means to safely exit the arrangement without material harm to the business.

Critical or important outsourcing will attract the highest level of rigour, including regulatory notification, performance and relationship reviews, regulatory compliance reviews, risk and control assessments.

# **Outsourced functions and activities**

Aviva outsources a range of operational functions and activities. The nature of critical or important arrangements primarily includes asset management, policy administration, commercial schemes, claims handling, document services, fund administration/management, finance/back office services and IT support services/system development. Service providers for these activities are mostly based in the UK, but also in other jurisdictions consistent with Aviva's global footprint. The latter includes service providers in Europe (primarily France and Italy) and Canada relating to policy administration and claims handling, and in China, India, Singapore and Sri Lanka for finance and IT support services.

# Material intra-group outsourcing arrangements

Material intra–group outsourcing arrangements for the year ended 31 December 2019 primarily comprise fund/asset management, and a range of shared support services (including IT, finance and capital management, compliance, risk, HR, actuarial and internal audit services) outsourced to service companies within the Group. Material intra-group outsourcing arrangements are primarily based in the UK, France, Poland and Singapore.

# **B.8** Any other material information

The Group did not use the option provided in Article 246(4) of the Directive 2009/138/EC to produce a single ORSA document.

No other information on Aviva's system of governance is considered material to require disclosure in this section.

# B.8.1 Additional information on the COVID-19 global pandemic

Further information on the impact of the COVID-19 global pandemic is contained within section F.6.

# Section C Risk profile

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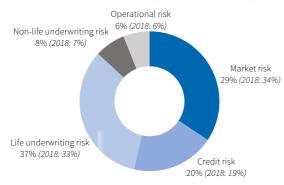
# Section C: Risk profile

The 'Risk profile' section of this report provides information on the key risks encountered by the Group, as well as the corresponding processes for monitoring the risk exposures and the techniques in place for mitigating these risks.

# Overview of the Group's risk profile

For the purposes of risk identification and measurement, and aligned to Aviva's risk policies, risks are usually grouped by risk type: underwriting risk for both life insurance (including long-term health) and general insurance (including short-term health) business, market, credit, liquidity, operational and asset management risk.

The chart below shows the composition of the Group's undiversified SCR as at 31 December 2019 and 31 December 2018:



Risk profile	Section reference
Life and non-life underwriting risk	C.1
Market risk	C.2
Credit risk	C.3
Liquidity risk	C.4
Operational risk	C.5
Asset Management risk	C.6

# **Risk identification**

Risk identification is carried out on a regular basis drawing on a combination of internal and external data, covering both regular conditions and stressed environments.

Primary sources for identifying risks include risk events analysis, external and internal trends analysis and management information as well as other risk governance processes and input from executive teams and internal committees.

# **Exposure measurement and monitoring**

The primary bases used by the Group to measure and assess risks are the Solvency II SCR and Solvency II cover ratio which are used to set the Solvency II capital risk appetites and limits and to assess the significance of risks and to appropriately direct resources to their management. The Group targets a cover ratio working range of between 160% and 180% (based on the shareholder view).

Some categories of risk are not measured and assessed by the Solvency II SCR and cover ratio, principally liquidity risk, which is measured through the liquidity coverage ratio (see section C.4). There are also other risk categories included in the other main risk types, which are not measured and managed through the holding of capital, such as asset valuation uncertainty risk.

The Group Solvency II SCR components for each risk have been disclosed applying the Group's partial internal model to aggregate the SCR for those entities using standard formula and those using our internal model. At 31 December 2019, 79%¹ (2018: 79%) of the Group's undiversified SCR was calculated using the Group's internal model.

We also assess risks on the basis of their potential impact on the value of our franchise, which is supported by our reputation, brand and good customer relationships. Operational risks in particular have the potential to significantly impact our franchise value (see section C.5) compared to other risk types which are relatively more significant when measured on the basis of the Solvency II SCR.

We also measure and assess risk in terms of our total gross exposure and sum at risk, as well as monitoring risk indicators that might indicate changes in our risk exposure and act as a trigger for management action. These are generally risk type specific and are considered in sections C.1 to C.6.

# **Risk mitigation**

The Group uses a variety of risk mitigation techniques to reduce and manage its risk exposures, including financial hedging, reinsurance and operational controls. Risk mitigation techniques applied are explained in greater detail by risk type in sections C.1 to C.6.

# Monitoring the effectiveness of risk mitigation techniques

The Group's major business units have dedicated risk monitoring teams which monitor the effectiveness of risk management in the business, including risk mitigation. How the effectiveness of specific risk mitigation techniques is monitored is considered in sections C.1 to C.6.

# Risk concentration

The Group's principal sources of risk concentration are counterparty exposures to sovereign governments and reinsurers, further details of which are disclosed in C.3.3. Otherwise the Group's scale and business model as a composite multi-business line, multi-geography and multi-channel business, creates diversification of risks and generally helps to reduce concentrations of risks.

Any significant concentrations of risk identified at the level of the individual risk are presented in sections C.1 to C.6 of this report.

The principal example of where the Group is exposed to some degree of concentration risk across risk types are strategic distribution partners or outsourcing partners to which we have investment or reinsurance exposure, resulting in operational, credit and market risk exposures to the same third party.

1 See section E2.2: Internal model represents £18.9 billion (2018: £18.5 billion) of the total undiversified SCR of £23.8 billion (2018: £23.4 billion)

# Sensitivity analyses

The Group performs sensitivity analyses, stress and scenario testing in order to understand the impact that changes in underlying risk calibrations and correlations of those risks would have on the Group's risk profile and SCR. See section C.7 for details of the methodology employed in sensitivity analysis, the assumptions and limitations in performing these analyses and the results obtained.

# Prudent person principle

The Group ensures that its assets are invested in accordance with the prudent person principle as set out in the Solvency II regulatory framework through the collective application of its risk policies and business standards. These ensure that Aviva invests in assets whose risks it can properly identify, measure, monitor, manage, control and report, and appropriately take into account in the assessment of its overall solvency needs. The Group's asset liability management business standard and certain provisions of the investment management business standard contain mandatory requirements to ensure that the Group takes into account the risks associated with its investments without relying only on the risk being adequately captured by the capital requirements. Risk appetites and tolerances by risk type are also set and monitored at Group and business unit level.

Other business standards set requirements for the quality of investment assets (including setting risk limits to control the market and credit risk within a portfolio), matching of assets to liabilities, diversification of invested assets, use of derivatives, assets not admitted for trading and the consistency of investment mandates with the way the investment proposition is described and marketed to customers of unit-linked contracts.

# **Exposure to insurance special purpose vehicles**

As at 31 December 2019, the Group has no insurance special purpose vehicles as defined by the Solvency II regulatory framework.

# **Exposure to off-balance sheet positions**

As at 31 December 2019, the Group has no material exposure arising from off-balance sheet positions.

# **C.1** Underwriting risk

Underwriting risk is the risk of loss on underwriting activity caused by an adverse change in the value of liabilities arising from inappropriate insurance pricing, inadequate claims reserving assumptions as well as unforeseen fluctuations in the timing, frequency and severity of insured events relative to the expectations at the time of underwriting. The risk excludes operational risk arising from internal processes in the writing of insurance business or settling of claims. The risk arises from a number of underlying life insurance, health insurance and general insurance risks, which are separately managed and discussed in sections C.1.1 and C.1.2.

Underwriting risks	% of Group undiversified SCR	
	2019	2018
Life underwriting risk	37%	33%
Non-life underwriting risk	8%	7%
Total underwriting risks	45%	40%

# C.1.1 Underwriting risk - Life insurance (including health similar to life)

# C.1.1.1 Exposure

# Description

Life insurance risk in the Group arises through its exposure to longevity risk, 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 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 the Group to changes in policyholder behaviour in the exercise of options as well as market risk (see section C.2). 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; and
- Other: indexed interest or principal payments, maturity value, loyalty bonus.

# Exposure measurement

The following measurement and analysis of life insurance risks is undertaken by business units to support management and monitoring of risk exposures:

- High-level analysis of actual experience against expected experience to support ongoing monitoring of the appropriateness of assumptions;
- Standard stresses for mortality, morbidity, longevity, expense, lapse and policyholder behaviour risks. This output is also used to inform liquidity risk analysis;

- Combined scenarios considering interest rate falls or rises where adverse experience has the potential to increase or decrease the duration of the liability and financial market falls where there is a likelihood of significantly higher lapses. This output is also used to inform liquidity risk analysis; and
- SCR calculations for mortality, morbidity, longevity, expenses and lapse risks.

The following analysis is undertaken by business units on an annual basis as part of the planning process to support management and monitoring of risk exposures and more frequently if necessary:

- Business mix sensitivities are used to determine how Solvency II capital requirements would move under different plan scenarios;
- Reverse stress tests for assumptions based on standard stresses that are identified as sufficiently critical to the profitability and risk profile of the business to render it unviable. This analysis is informed by reviewing the results for specific scenario paths from assets and liabilities management (ALM) models;
- An in-force risk profile analysis to understand the guarantee profile of the business, looking at minimum interest rate guarantees and other financial and non-financial guarantees;
- · Liability adequacy/reserve coverage analysis on a local accounting basis is used to identify potential liquidity risks; and
- Business mix sensitivities to determine how economic capital requirements would move under different plan scenarios.

The Group's life underwriting risk undiversified SCR at 31 December 2019 is disclosed in section E.2.2.

The table below shows the key life underwriting risks expressed as a proportion of Group undiversified SCR.

Life underwriting risks		% of Group undiversified SCR	
	2019	2018	
Longevity risk	14%	12%	
Persistency risk	12%	12%	
Expense risk	6%	5%	
Other life underwriting risks	5%	4%	
Total life underwriting risks	37%	33%	

# Changes to risk profile in the reporting period

Measured by Solvency II undiversified SCR, the Group's most significant life insurance (including health similar to life) risks are longevity risk and persistency risk.

The SCR for life insurance risk increased in 2019 primarily due to increased longevity risk in the UK as a consequence of lower interest rates and a lower matching adjustment (as a result of narrowing of credit spreads) reducing the impact of discounting.

Longevity risk remains the Group's most significant life insurance risk, while persistency risk remains significant and continues to be linked with economic conditions. We are also exposed to longevity risk through the Aviva Staff Pension Scheme and in October 2019 the scheme completed a bulk annuity buy-in transaction. 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 provide a significant diversification against other risks in the portfolio.

The Group is in the process of implementing a new actuarial modelling system for non-profit business in the UK. During the year ended 31 December 2019, certain protection products were transferred into the new modelling system which had minimal financial impact.

The sensitivity of the Group's Solvency II cover ratio to changes in lapse, mortality and morbidity rates and maintenance expenses is provided in section C.7.1.

# C.1.1.2 Risk mitigation

The individual life and health insurance risks are mitigated and managed as follows:

- Mortality and morbidity risks are mitigated by use of reinsurance. The Group allows business units 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. While 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. 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 and in October 2019 the scheme completed a bulk annuity buy-in transaction removing the investment and longevity risk for its members.
- 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. Business units 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 regular assessment of business unit profitability and frequent monitoring of expense levels.

# Monitoring the effectiveness of risk mitigation techniques

The implementation of risk mitigation techniques is discussed and then approved via business units' governance bodies, with ongoing effectiveness being monitored as part of 'business as usual' management information. This is the process to support the business Chief Executive Officer's annual declaration that the system of governance, internal controls and risk management is effective and fit for purpose and periodic internal audit reviews, significant findings from which are reported to the Group Audit Committee.

# C.1.1.3 Risk concentration

Annuities are marketed and sold to policyholders approaching or in retirement, and therefore longevity risk is concentrated within the age cohort of 60 years old or above. Otherwise, the Group's policy on life insurance risks is to avoid significant concentrations of risk exposure. Life insurance concentration risk is a reflection of too little diversification within or across life insurance risk types. The Group mitigates the concentration of life insurance risks through its scale, geographic spread and diversity of product lines. Risk transfer solutions, primarily through reinsurance, are employed to transfer risks that the Group does not wish to retain, due to the presence of single large exposures, accumulations, or limited internal expertise to the external market.

Controls are in place to ensure accumulations of risk can be evaluated properly. Counterparty concentration as a result of life insurance activities and reinsurance arrangements are considered in section C.3.3.

# C.1.2 Underwriting risk – General insurance (including health similar to non-life)

# C.1.2.1 Exposure

# Description

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.

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.

# Exposure measurement

At business unit level the management and monitoring of risk exposures is supported by the following calculations:

- A distribution of the range of probable losses and the related Solvency II capital calculations for claims reserves and new underwriting exposures with the catastrophe risk element shown separately where relevant as well as for distribution costs and expenses;
- Analysis of actual experience against expected experience to support the appropriateness of assumptions; and
- Extrapolation of historical trends to help with the understanding of likely future behaviour of risk drivers and the general insurance risk profile.

At a business unit level exposures are also monitored in terms of best estimate liabilities, total sum insured and estimated maximum loss (EML). EML is an estimation of the maximum loss which could reasonably be sustained, as a result of a single incident considered to be within the realms of probability taking into account all factors likely to increase or lessen the extent of the loss, but excluding such coincidences and catastrophes which may be possible but remain unlikely.

The general insurance risk Group's undiversified SCR at 31 December 2019 is disclosed in section E.2.2.

The table below shows the key non-life underwriting risks expressed as a proportion of Group undiversified SCR.

Non-life underwriting risks	% of Group undiversified SCR
	2019 2018
Reserve risk	2% 2%
Non-life catastrophe risk	2% 1%
Premium risk	3% 3%
Other non-life underwriting risks	1% 1%
Total non-life underwriting risks	8% 7%

# Changes to risk profile in the reporting period

The Group's underlying exposure to general insurance risks has remained stable.

The sensitivity of the Group's Solvency II cover ratio to changes in general insurance gross loss ratios is provided in section C.7.1.

# C.1.2.2 Risk mitigation

Reinsurance is purchased to mitigate general insurance risk and ensure exposures remain within appetite. The Group purchases external reinsurance mainly on an excess of loss basis, although there are some quota share and facultative reinsurance purchased in selective circumstances. The Group's treaty programmes are designed to allow business units to trade to the full extent of their underwriting appetite.

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 Solvency II 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 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 programme to a level in excess of a 1 in 200 year return period. In addition the Group purchases a number of general insurance 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.

# Monitoring the effectiveness of risk mitigation techniques

Assisted by the General Insurance Council at a Group-wide level, the management of general insurance underwriting risk is overseen at business unit level by legal entity Board Risk Committees and specific business unit senior management committees. In the case of UK general insurance, the Group's largest general insurance business unit, these management committees are the Asset Liability Committee (ALCO), the Insurance Committee and the Reserve and Projections Committee. These committees also conduct ongoing monitoring of the continued effectiveness of the Group's reinsurance to mitigate underwriting risk.

# C.1.2.3 Risk concentration

The Group's policy on general insurance risks is to avoid concentrations of risk exposure. If an individual general insurance risk is so large that it does not diversify well into the portfolio, it cannot be accepted unless external risk transfer by reinsurance can be effected. The external risk transfer via reinsurance must be secured in advance of the acceptance of the risk. Similarly, groups of risks that are subject to similar underlying risk drivers to other risks in the business must only be accepted if:

- The accumulated exposure to the underlying risk driver(s) can be measured to a tolerable level of reliability; and
- External risk transfer of the accumulated extreme risk can be effected so that the residual accumulated risk is consistent with risk appetite.

Controls are in place to ensure accumulations of risk can be evaluated properly. Counterparty concentration as a result of general insurance activities and reinsurance are considered in section C.3.3.

The Group's single most concentrated catastrophe peril gross exposure is not sufficiently material that, if it occurred, it would result in the Group being outside risk appetite.

# C.2 Market risk

# C.2.1 Exposure

# Description

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 business units 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.

Principal market risk types are described below:

- Equity risk: The Group is subject to direct equity risk arising from changes in the market values of its equity securities portfolio. Our most material indirect equity 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 exposures in shareholder funds through equities held to match inflation-linked liabilities.
- 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.
  - Some of the Group's products, principally participating contracts, expose us to the risk that 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) will adversely impact profits. Markets where Aviva is primarily exposed to this risk are the UK, France, Italy and some other Asian business units.
  - 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.
- **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 commercial and residential mortgages and mortgage backed securities.
- 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.

- Foreign currency exchange rate 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. 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 58% (2018: 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.
- **Derivatives risk:** Derivatives are used by a number of the Group's business units. Derivatives are primarily used for efficient investment management, risk hedging purposes, or to structure specific retail savings products.
- **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 Group internal model and in scenario analysis.

# **Exposure measurement**

At a Group level the Solvency II SCR is used as the principal basis to measure and assess our exposure to market risks. Risk appetites are set to limit exposure to interest rate risk and foreign exchange rate risk based on the Solvency II cover ratio. In addition at business unit level and Group for each risk category the following key parameters are used for risk assessment:

- Shifts in key interest rate/currency-related parameters relevant to market risk profile, e.g. term structure shifts, interest rate volatility, drift and correlation, slope and convexity;
- Changes in price level of individual assets or specific asset classes, e.g. equity, commodity, property;
- Changes in price volatility of individual assets or specific asset classes;
- Changes in realised and/or implied inflation; and
- · Portfolio sensitivities.

These parameters are monitored regularly with significant changes included in management information reported to Group and business unit ALCOs which inform the development of scenarios for stress and scenario testing. Specifically, the UK business is exposed to the level of house price inflation and assumptions made about the future growth rate of house price inflation on its equity release mortgage portfolio. The level of house price inflation is monitored and the impact of exposure to adverse movements is regularly reviewed.

See section E.2.2 for market risk Group's undiversified SCR at 31 December 2019, and inclusive of the SCR related to credit spread risk from corporate and government bond holdings and other debt securities.

The table below shows the key market risks expressed as a proportion of Group undiversified SCR.

Market risks		% of Group undiversified SCR	
	2019	2018	
Equity risk	11%	10%	
Interest rate risk	6%	13%	
Property price risk	7%	6%	
Other market risks	5%	5%	
Total market risks	29%	34%	

# Changes to risk profile in the reporting period

The Group's most significant exposures to market risk are interest rate risk, equity risk and property price risk. The Group's exposure to market risk fell in 2019 driven by a decrease in interest rate risk. Interest rate risk fell primarily due to the reassessment of the SCR interest rate stress. During 2019, interest rates reached record lows in many eurozone economies, requiring further management action in our businesses in France and Italy. These include continuing to transform the product mix towards capital light products, interest rate hedging and further optimisation of our asset mix.

The sensitivity of the Group's Solvency II cover ratio to changes in market risk indicators is provided in C.7.1.

# C.2.2. Risk mitigation

The Group's principal risk mitigation actions are set out below by principal market risk type:

- Equity risk: 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. Business units 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 2019 the Group continues to hold a series of macro equity hedges to reduce the overall shareholder equity risk exposure.
- Property price risk: 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 2019, 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 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.

- Interest rate risk: 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, swaptions, caps and floors.

  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 France and Italy. 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.
- Inflation risk: 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.
- Currency risk: 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. Business units 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.
- **Derivatives risk:** 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.

# Monitoring the effectiveness of risk mitigation techniques

The Group and its business units are required, under the financial risk mitigation business standard, to assess and document the effectiveness of arrangements that are in place to mitigate market and credit risks (financial risks). This assessment is initially undertaken prior to deciding whether or not to enter into an arrangement, and considers its impact on key metrics including:

- Measures of risk, primarily Solvency II capital based (internal model or standard formula basis, as applicable to the business unit); and
- Financial measures, including contractual cash flows, operating capital generation and operating profit and expenses.

Where the initial assessment indicates that the impact on key metrics is material, further assessments are carried out at appropriate regular intervals throughout the life of the arrangement. These assessments typically include stress testing and sensitivity analysis, and transactions aimed at mitigating the same risk may be considered in aggregate (e.g. interest rate or foreign exchange hedging programmes).

# C.2.3 Risk concentration

The Group monitors its investment exposures, in aggregate across all classes of financial instruments (debt securities, equities, derivatives and other investments), to individual issuers, geographies, sectors, and asset classes to ensure the Group and individual business units and legal entities are not individually exposed to significant risk concentrations. Further information on how the Group manages, monitors and limits investment exposures is included in section C.3.3.

# C.3 Credit risk

# C.3.1 Exposure

# Description

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 credit risks arise principally through the following exposures:

- Fixed maturity securities: Includes investments in sovereign and corporate bonds, structured notes and collateralised securities.
- Loans: Principally comprised of mortgage loans, healthcare, infrastructure and Private Finance Initiative loans, policy loans, and loans and advances to banks primarily relating to loans of cash collateral received in stock lending transactions.
- Reinsurance recoverables: Where the Group has reinsurance arrangements in place, credit risk arises in relation to the reinsurance recoverables held
- Other investments: Credit risk arises in relation to other assets, including bank deposits, receivables and derivative counterparties.

# Exposure measurement

The principal basis used to measure and assess our exposure to credit risk is the Solvency II SCR. In addition, the following factors are used when measuring and assessing credit risk exposure:

• Maximum exposure: The Group's maximum exposure to credit risk of financial assets and reinsurance recoverables, without taking collateral or hedges into account, is represented by the carrying value of the financial assets and reinsurance recoverables recognised in the Group's Solvency II balance sheet. These comprise debt securities, reinsurance recoverables, derivative assets, loans and receivables.

- Credit ratings: At Group level, credit ratings (external, internal and market adjusted ratings) are used as indicators of credit risk to help determine risk management actions, investment decisions and asset allocation, as well as the credit risk capital requirement.
- Loan specific factors: The loan exposures for our UK Life business are calculated on a discounted cash flow basis, and include a risk adjustment through the use of credit risk adjusted value (CRAV). In addition, the Group and its business units consider a range of factors in assessing credit risk arising on mortgage portfolios, including loan to value ratios, interest and debt service cover, and the diversity and quality of the tenant base metrics.

The majority of credit risk relates to that arising from corporate and government bond holdings and other debt securities, which is reported within the market risk SCR.

As at 31 December 2019, credit risk makes up 20% (2018: 19%) of the Group's undiversified SCR.

# Changes to risk profile in the reporting period

Credit risk, including spread risk, measured by SCR has remained stable in 2019. A reduction in credit risk due to the narrowing of sovereign bond spreads in Italy was offset by an increase in spread risk as a result of lower interest rates and a narrowing of spreads over 2019 increasing the exposure and therefore sensitivity to further spread movements.

The sensitivity of the Group's Solvency II cover ratio to changes in credit risk indicators is provided in section C.7.1 Sensitivity Analysis.

# C.3.2 Risk mitigation

The Group's principal methods of mitigating credit risk exposure are the purchase of derivatives for hedging purposes and the holding of collateral and other forms of securities.

# Credit risk hedging

The Group holds a series of macro credit hedges to reduce the overall credit risk exposure. The Group's portfolio of macro credit hedges uses credit tranches to reduce the Group's credit risk in a cost effective manner. While the current intention is to hold these to maturity, the tranches used are chosen to maximise the liquidity and are based on standardised credit indices and standardised tranche attachment and detachment points. Outside the Group's macro credit hedging programme, the credit derivatives used in the Group's major programmes are entirely single name credit default swaps (CDS). These are vanilla products with multiple market makers and standardised terms.

# Collateral and other security

The Group holds collateral, provided by a number of counterparties, to mitigate specific credit risks. Where appropriate, the Group also mitigates the credit risk of its derivative counterparties by collateralising derivative transactions. In addition, the credit risk associated with the Group's securities financing operations is mitigated by over-collateralisation. The adequacy of this collateral is assessed against current market prices on a daily basis. Borrower credit default swap prices are also monitored daily against pre-defined trigger points to reduce or stop lending activity.

In respect of the Group's loan portfolio, credit risk is mitigated by holding collateral as follows:

- Policy loans 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 Private Finance Initiative loans secured against healthcare, education, social housing and emergency services related premises; and
- Mortgage loans collateralised by property assets.

# C.3.3 Risk concentration

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 Group ALCO and Board Risk Committee (BRC).

The Group's largest credit exposures are to sovereign states. At 31 December 2019, the Group's largest sovereign exposure (including assets backing unit-linked contracts and non-controlling interests) was to the UK Government amounting to £27.0 billion (2018 restated: £29.2 billion), followed by the French government £17.1 billion (2018 restated: £16.9 billion) and Italian government £11.8 billion (2018 restated: £11.0 billion).

With the exception of government bonds, the largest aggregated counterparty exposure within shareholder assets (i.e. excluding potential exposures arising from reinsurance of unit-linked funds) at 31 December 2019 is to the Swiss Reinsurance Company Limited (including subsidiaries), amounting to £2.5 billion (2018: £2.1 billion) on a Solvency II basis.

# C.4 Liquidity risk

# C.4.1 Exposure

# Description

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.

Sources of liquidity risk for a business unit are those activities or external factors that could alter the liquidity needs and liquidity resources in a stress scenario. Business units are responsible for identifying where liquidity risk is created and the factors that may increase the liquidity risks they face at the business unit, legal entity and/or specific funds level when setting risk appetite.

At the Group centre, in particular in respect of the Group's principal holding companies, Aviva plc and Aviva Group Holdings Limited the main sources of central liquidity risk include reduced remittances from subsidiaries, lower proceeds from planned disposals, higher capital requirements of businesses and the refinancing of external debt issued by Aviva plc and Friends Life Holdings plc.

# **Exposure measurement**

Liquidity risk appetite is expressed and measured through both absolute level targets and bespoke liquidity coverage ratios which measure the extent to which liquid assets held centrally or at the business unit level and stressed inflows are sufficient to meet liquidity requirements over a specified time horizon.

At the Group centre, central liquidity requirements include external dividends, debt interest payments, centre operating costs and any planned internal and external de-leveraging, taking into account a stressed value of central assets and stressed value of central receipts, principally dividends from business units.

At a business unit level, businesses are required to establish specific short and long-term liquidity risk appetites for legal entities and ring fenced funds.

# Changes to risk profile in the reporting period

The liquidity risk profile of the Group centre and business units varies according to the nature of each entity. The liquidity risk measured against both absolute level targets and liquidity coverage ratios remained within appetite over the year.

# Sensitivity analysis

Stress and scenario testing, including reverse stress tests, is undertaken by the Group for the purpose of recovery planning and to test the resilience of the business plan. This testing specifically considers impacts on the Group's central liquidity position. See section C.7 for further details of this testing.

# C.4.2 Risk mitigation

The Group centre mitigates liquidity risks by:

- Maintaining significant undrawn committed borrowing facilities (£1.65 billion) (2018: £1.65 billion) at the Group centre from a range of leading international banks, some of which is allocated to cover commercial paper in issuance; and
- Use of the Group's commercial paper programme providing for issuance of up to £2.0 billion (2018: £2.0 billion), of which £1.8 billion (2018: £1.7 billion) is unused and available for use.

Business units mitigate liquidity risk through asset liability matching which optimises asset portfolio maturity structures to ensure cash flows are sufficient to meet liabilities when they fall due. Business units have contingency funding plans that enable them to draw on liquidity held at the Group centre. To pre-empt the need to initiate the contingent funding plan, the business units set liquidity buffers and triggers to enable action to be taken before target levels are breached.

# C.4.3 Risk concentration

The diversity of sources of liquidity available to the Group averts concentration of liquidity risk. The Group's committed borrowing facilities are with 11 different leading UK, US and European banks.

# C.4.4 Additional information on liquidity risk — EPIFP (Expected Profit included in Future Premiums)

EPIFP are profits arising from the inclusion in technical provisions of premiums on existing business that will be received in the future, but that have not yet been received. EPIFP is presented in QRT S.23.01.22 'Own Funds' within section F.2.

Excluding the premium is likely to have an impact on the benefit to be paid. Relevant benefit and expense cash flows are therefore assumed to be on a paid-up or lapse basis. Where 'unearned' commission could be clawed back on a paid-up basis, this is also allowed for. However, any penalties on the contract associated with the policyholder making the policy paid up are not taken into account.

When calculating the EPIFP for a contract, at a Group level it is based on the net of reinsurance technical provision (excluding risk margin) and its contract boundary is taken into account for both life and non-life operations. In non-life operations, future premiums also include, as a minimum, premiums from legally obliged business, premiums due from policies with instalment premium payment terms and policyholder debtor balances (for example, overdue premiums).

The amount of Group EPIFP was £4.7 billion (2018: £4.4 billion), of which £4.5 billion (2018: £4.2 billion) was for life business and £0.2 billion (2018: £0.2 billion) for non-life business.

# C.5. Operational risk

# C.5.1 Exposure

# Description

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.

As part of the Group's Operational Risk and Control Management Framework the Risk and Control Self-Assessment (RCSA) process is used to identify operational risks. The process involves the mapping of identified operational risks to operational processes, the identification of mitigating controls and an assessment of the effectiveness of these controls.

 $Two \, specific \, categories \, of \, operational \, risk \, exposures \, assessed \, under \, the \, Group's \, Operational \, Risk \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Framework \, are: \, and \, Control \, Management \, Are: \,$ 

- **Conduct risk:** this is the risk that positive customer outcomes are not achieved, and arises throughout the whole product lifecycle from the development of products and sales process to servicing the policy and handling claims; and,
- Reputational risk: this is 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 well founded) or customers' expectations for the product change.

# **Exposure measurement**

Operational risks are initially assessed through the RCSA process. Following an assessment of the design adequacy and operating effectiveness of the controls implemented, a residual risk impact and probability assessment is performed. Residual impact is quantitatively assessed on the basis of financial loss and misstatement and qualitatively for reputational and conduct considerations. The nature of operational risks (e.g. interruption of service to customers or loss of customer data as a result of an IT security breach) means that the reputational and conduct impacts are often more significant than the financial impact. The residual impact is compared to pre-defined operational risk tolerances to identify where management action is required. Notwithstanding this, the Group will also seek to reduce residual operational risk exposures for those operational risks within tolerance where it is cost effective to do so.

To the extent that operational risks cannot be fully mitigated, the Group holds Solvency II capital to manage these risks calculated on the basis of the Solvency II SCR. For the purposes of calculating the Solvency II SCR for operational risk, a number of Group and business unit specific scenarios were modelled. The operational risk Group SCR before diversification and tax at 31 December 2019 is disclosed in section F.2.2.

We also assess operational risks in terms of their potential reputational impact which could adversely affect the Group's franchise value, being the value attributable to the Group's ability to sell profitable business in the future. In order to assess the level of risk to the Group's franchise value, we regularly analyse and review indicators of stakeholder perception of our reputation, threats to that reputation and any potential actions that we could take to maximise opportunities to build (or minimise threats to) our reputation. The stakeholders and indicators we assess are:

- Investors: We track buy/hold/sell rating recommendations of equity analysts who track our shares;
- Rating agencies: We track the credit rating recommendations of credit rating agencies;
- People: We undertake a number of surveys of employee sentiments during the year, including an annual survey of all our staff;
- Customer: We track customer advocacy indicators;
- Regulators: We track qualitative indicators of the strength of our relationship with regulators; and,
- Opinion formers: We track qualitative indicators of the strength of our reputation in the media and with government and politicians (at a local, national and European Union level).

As at 31 December 2019, operational risk makes up 6% (2018: 6%) of the Group's undiversified SCR.

# Changes to risk profile in the reporting period

The importance 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 companies in the UK and elsewhere, mean that the Group has inherent risk exposure to risks such as data theft, conduct regulatory breaches (including financial crime) and customer service interruption due to IT systems failure. During 2019 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 and security.

In preparing for the end of the transition period on 31 December 2020 under the UK-EU withdrawal agreement, we have already taken the operational measures necessary to ensure continuous service to our customers.

# C.5.2 Risk mitigation

Operational controls are used to mitigate operational risks, while the RCSA process is used to assess the effectiveness of these controls. In addition, the Group's 'three lines of defence model' (see section B.1.1) all have an important role to play in monitoring the effectiveness of the controls that are in place in respect of operational risks.

#### C.5.3 Concentration risk

Concentrations of operational risk arise when there is dependency on a single supplier (internal to the Group as well as external) to provide a product or service supporting a business critical function, in particular when provided across a number of territories. Business units are required to identify such business critical outsourced functions (internal and external) and for each have exit and termination plans and business continuity and disaster recovery plans in the event of supplier failure. These plans are required to be reviewed at least annually.

In our larger markets, such as the UK, our operations are geographically well spread across a number of office locations, helping to ensure continuity of service if a catastrophic event results in an office being out of action. While many of our smaller markets operate out of only a few offices, all have business continuity plans for critical functions which should ensure continuity of service to our customers without significant interruption.

Most of our products are sold under the 'Aviva' brand. The Group is therefore particularly vulnerable to any operational failures that could adversely impact public perception of the 'Aviva' brand.

#### **C.6 Asset Management risk**

In addition to the risks set out in sections C.1 to C.5 of this report, the other material risk type to which the Group is exposed is asset management risk.

#### C.6.1 Exposure

#### Description

Aviva is directly exposed to the risks associated with operating an asset management business through its ownership of Aviva Investors. In addition to operational, credit, market and liquidity risk, the underlying risk profile of our asset management business is derived from investment performance, specialist investment professionals and leadership, product development capabilities, fund liquidity, margin, client retention, regulatory developments, fiduciary and contractual responsibilities.

#### Measurement

Our UK and material overseas asset management entities apply the Internal Capital Adequacy Assessment Process (ICAAP) to identify, measure and monitor their risk exposures. The process is subject to the different sectoral requirements of the asset management industry, pursuant to IFPRU 2.3 Supervisory review and evaluation process: Internal Capital Adequacy Standards. The basis for calculating the capital resource requirement for the ICAAP is similar to Solvency II SCR, and is included on this basis in the Group's total SCR in the SCR for non-insurance entities (see section E.2.2), of which the Group's asset management business is the principal contributor. The capital resource requirement for the ICAAP REC is based on year-end balance sheet exposures and exposure to operational risk (including asset management specific risks) for a 1 in 200 year stress scenario.

#### Changes to risk profile in the reporting period

There has been no significant change to the profile of asset management risks as measured under ICAAP in the reporting period.

#### C.6.2 Risk mitigation

Investment performance against client and fund objectives and exposure to fund liquidity risk are subject to further independent oversight and challenge by the investment risk team. Succession plans are in place to manage and mitigate against the risk of key staff leaving our asset management business. A global client solutions team is in place to manage and mitigate against the risk of clients redeeming their investments, while all new asset management products are reviewed and approved at each stage of the product development process, supported by a product feasibility study.

The Aviva Investors executive team regularly monitor the asset management risk exposure and develop the business' strategy and plan to manage and mitigate against the risks materialising.

#### C.6.3 Risk concentration

Particular asset management risks that are prone to concentration risk are client retention risk (e.g. proportion of fees from a single client), people risk (e.g. proportion of revenue dependent on a fund management desk or team), performance risk (e.g. proportion of fees generated by a single fund) and product risk (e.g. proportion of revenue dependent on a single product or source). The Group does not have a material concentration of asset management risk to a single external client or single fund, product or fund manager.

#### C.7 Any other information

#### C.7.1 Sensitivity analyses

The Group performs sensitivity analyses alongside stress and scenario testing in order to understand the impact that changes in underlying risk calibrations (and correlations of those risks) could have on the Group's risk profile and Solvency II cover ratio (Group own funds over Group SCR). This section describes the sensitivity analyses performed, and section C.7.2 covers the Group's stress and scenario testing.

The following sensitivity analysis of Solvency II surplus allows for any consequential impact on the asset and liability valuations. All other assumptions remain unchanged for each sensitivity, except where these are directly affected by the revised economic conditions or where a management action that is allowed for in the SCR calculation is applicable for that sensitivity. For example, future bonus rates are automatically adjusted to reflect sensitivity changes to future investment returns.

The transitional measure on technical provisions (TMTP) is assumed to be recalculated in all sensitivities where its impact would be material.

The table below shows the absolute change in regulatory cover ratio under each sensitivity, e.g. a 2% positive impact would result in an increase in the cover ratio from 183% to 185%.

Sensitivities		Impact on cover ratio %
Changes in economic assumptions	25bps increase in interest rate	3%
·	50bps increase in interest rate	5%
	100bps increase in interest rate	10%
	25bps decrease in interest rate	(4)%
	50bps decrease in interest rate	(8)%
	50bps increase in corporate bond spread <sup>1</sup>	(3)%
	100bps increase in corporate bond spread <sup>1</sup>	(8)%
	50bps decrease in corporate bond spread <sup>1</sup>	3%
	Credit downgrade on annuity portfolio <sup>2</sup>	(3)%
	10% increase in market value of equity	2%
	25% increase in market value of equity	4%
	10% decrease in market value of equity	(2)%
	25% decrease in market value of equity	(4)%
	20% increase in market value of commercial property	5%
	20% decrease in market value of commercial property	(7)%
	20% increase in market value of residential property	3%
	20% decrease in market value of residential property	(4)%
Changes in non-economic assumptions	10% increase in maintenance and investment expenses	(7)%
	10% increase in lapse rates	(2)%
	5% increase in mortality/morbidity rates – life assurance	(2)%
	5% decrease in mortality rates – annuity business	(10)%
	5% increase in gross loss ratios	(2)%

Credit spread movement for corporate bonds with credit rating A at 10 year duration, with the other ratings and durations stressed by the same proportion relative to the stressed capital requirement An immediate full letter downgrade on 20% of the annuity portfolio bonds (e.g. from AA to AA, from AA to A).

#### Limitations of sensitivity analysis

The table above demonstrates 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 analysis does not take into consideration that the Group's assets and liabilities are actively managed. Additionally, the Solvency II 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.

Other limitations in the above sensitivity analysis 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.

#### C.7.2 Stress and scenario testing

Stress and scenario testing (including reverse stress testing) is used to test the resilience of business plans and strategic projects (including material portfolio changes such as those related to products, customers and distributors) and used to inform decision-making. A series of stress tests are performed to analyse its impact on the Group's solvency. These tests include reference stresses other than 1 in 200 driven by the Group's risk profile as well as several scenarios as part of the Group's recovery planning and liquidity risk management planning processes and on an ad-hoc basis to support management decisions.

The results of stress and scenario testing demonstrate that through usage of key management actions (including expense efficiencies, hedging and capital raising) the Group can maintain a sufficient liquidity and surplus of Solvency II own funds over SCR to withstand the severe scenarios and stresses outlined above over a 24 month period.

#### C.7.3 Additional Information on the COVID-19 global pandemic

Further information on the impact of the COVID-19 global pandemic is contained within section F.6.

# Section D Valuation for solvency purposes

#### In this section

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#### Section D: Valuation for solvency purposes

The 'Valuation for solvency purposes' section of this report provides a description of the bases, methods and main assumptions used in the valuation of assets, technical provisions and other liabilities for each material asset/liability class under Solvency II.

The table below sets out a summarised balance sheet as at 31 December 2019, comparing assets and liabilities as reported in the Group IFRS financial statements column (a) with the Group Solvency II balance sheet column (e). Presentational and reclassification adjustments required to align the Group's IFRS balance sheet to the prescribed format of the SII balance sheet QRT are given in column (b).

Assets and liabilities have been valued according to the requirements of the Solvency II Directive and related guidance. The basis of the Solvency II valuation principle is the amount for which the assets or liabilities could be exchanged between knowledgeable and willing parties in an arm's length transaction. Where the valuation of assets and liabilities is the same under IFRS, a description of the bases, methods and main assumptions can be found in the accounting policies and notes of the 2019 Annual report and accounts (accounting policy F 'Fair value measurement' and Note 24 'Fair value methodology').

Where there are differences in scope of consolidation or measurement they are presented in columns (c) and (d) respectively.

#### 1. Balance Sheet - IFRS and Solvency II

			Presentational	Consolidation			
	Note from financial	IEDS (a)	and reclassification adjustments <sup>2</sup> (b)	scope adjustments <sup>3</sup> (c)	Valuation difference (d)	Solvency II (e)	
As at 31 December 2019	statements <sup>1</sup>	£m	£m	£m	£m	£m	SFCR note
Assets							
Goodwill	O & 17	1,855	_	(40)	(1,815)	_	D.1.1
Other intangible assets	O & 18	846	23	97	(966)	_	
Acquired value of in-force business	O & 18	1,954	525	_	(2,479)	_	D.1.1
Deferred acquisition costs	X & 30	3,156	203	(75)	(3,284)	_	D.1.2
Deferred tax assets	AC & 50	151	107	(226)	49	81	D.3.1
Pension benefit surplus	31	2,746	_	_	_	2,746	
Property, plant & equipment held for own use	P & 21	889	(56)	(239)	125	719	
Property (other than for own use)	Q & 22	11,203	(7,656)	(1,070)	_	2,477	
Participations <sup>3</sup>	D & 19, 20	1,531	38,944	22,333	(119)	62,689	D.1.6
Equities	S, T, U & 28	99,570	(95,269)	(298)	_	4,003	D.1.6
Bonds	S, T, U & 28	198,832	(67,863)	(496)	_	130,473	D.1.6
Other investments	S, T, U & 28	45,016	(24,159)	(8,062)	_	12,795	D.1.6
Assets held for index-linked and unit-linked contracts		_	172,726	(1,802)	_	170,924	D.1.7
Loans & mortgages	V & 25	38,579	(7,483)	(2,022)	(20)	29,054	D.1.3
Reinsurance recoverables	N & 47	12,356	(14)	(52)	(3,558)	8,732	D.1.4
Cash and cash equivalents	Y & 59(d)	19,524	(16,338)	(685)	_	2,501	D.1.6
Receivables (insurance, reinsurance and intermediaries)	X & 29	3,913	137	(33)	(2,903)	1,114	D.1.5
Other assets (inc. deposits to cedants, trade receivables and own shares) <sup>4</sup>	X & 29, 31	8,410	(2,037)	(257)	10	6,126	
Assets of operations classified as held for sale	AH & 4(b)	9,512	(9,512)	_	_	_	
Total assets		460,043	(17,722)	7,073	(14,960)	434,434	
Liabilities							
Technical provisions <sup>5</sup>	L, M & 43, 45	371,465	6,995	(3,597)	(13,414)	361,449	D.2.1
Contingent liabilities			_			_	
Provisions other than technical provisions	AA & 51	729	(1)	(41)	(25)	662	
Pension benefit obligations	AB & 51	836		(20)	`	816	
Deferred tax liabilities	AC & 50	2,155	95	(414)	1,308	3,144	D.3.1
Derivatives	S, U & 54	6,517	(391)	(498)	, —	5,628	
Financial liabilities other than debts owed to credit institutions	S & 53, 54	10,204	(871)	8,226	86	17,645	D.3.2
Insurance & intermediaries payables	54	1,503	2,019	, —	(191)	3,331	
Deposits from reinsurers and reinsurance payables	54	426	(17)	6	(48)	367	
Payables (trade, not insurance)	54	2,321	375	4,528	16	7,240	D.3.3
Subordinated liabilities	AD & 53	6,206	41	58	716	7,021	D.3.4
Other liabilities (including debts owed to credit institutions) <sup>6</sup>	D, L & 49, 55	29,870	(16,848)	(1,175)	(9,508)		D.3.5
Liabilities of operations classified as held for sale	AH & 4(b)	9,126	(9,126)	_	_	,	
Total liabilities		441,358	(17,729)	7,073	(21,060)	409,642	
Excess of assets over liabilities		18,685	77	_	6,100	24,792	

- For the main bases, methods and assumptions refer to notes as presented in the 2019 Annual report and accounts
- Certain presentational and reclassification adjustments have been made to align IFRS to Solvency II presentation Refer to '2. Method of consolidation' which explains the difference between IFRS and Solvency II bases.
- Other assets presented in column (a) include prepayments, accrued income, trade receivables, deposits with ceding undertakings, other receivables and current tax assets
- This includes insurance and investment contract liabilities as classified in IFRS.

  Other liabilities presented in column (a) include the net asset value attributable to unitholders, unallocated divisible surplus, accruals, deferred income, other liabilities and current tax liabilities.
- Own shares held at 31 December 2019 of £7 million have been reclassified from equity in the IFRS balance sheet to 'Other assets' in the Solvency II balance sheet

#### 2. Method of consolidation

The Solvency II balance sheet has been prepared using the default accounting consolidation based method ('method 1'). This differs to the methods applied under IFRS for the consolidated financial statements.

The table below sets out the key differences between the consolidation approach under Solvency II and IFRS for each type of undertaking defined by the Solvency II Directive and related guidance.

Type of undertaking	Influence	Indications of %	Solvency II Group balance sheet	IFRS balance sheet treatment
Insurance or reinsurance undertaking Insurance holding company or mixed financia holding company	Dominant	50-100%	Full consolidation  • Line-by-line 100% consolidation of assets and liabilities valued on a Solvency II basis.	Full consolidation if entity is controlled by Aviva, otherwise equity accounted in a single line in the IFRS balance sheet
Ancillary services undertaking	Jointly managed entity	50%	Proportional consolidation  • Line-by-line proportional consolidation (based on share of capital held by the undertaking) of assets and liabilities valued on a Solvency II basis.	Full consolidation if entity is controlled by Aviva, otherwise equity accounted in a single line in the IFRS balance sheet
	Significant	20-50%	Adjusted equity method • Each holding valued on the basis of the share of the excess of assets over liabilities valued on a Solvency II basis • Value represented in 'participations' line of balance sheet	Equity accounted in a single line in the IFRS balance sheet
Other financial sectors (including credit institutions, financial institutions, alternative investment fund managers, UCITS¹ management companies, non-regulated undertakings carrying out financial activities)	All	>20%	Proportional share of own funds according to relevant sectoral rules  Include Aviva share of own funds calculated on the basis of EU sectoral requirements  Value represented in 'participations' line of balance sheet.	Full consolidation if entity is controlled by Aviva, otherwise equity accounted in a single line in the IFRS balance sheet
Other (including collective investment undertakings and non-financial entities)	All	>20%	<ul> <li>Each holding valued at fair value in accordance with the valuation hierarchy<sup>2</sup>.</li> <li>Value represented in 'participations' line of balance sheet</li> </ul>	Full consolidation if entity is controlled by Aviva, otherwise equity accounted in a single line in the IFRS balance sheet

The different approaches to consolidation required for IFRS and Solvency II result in material presentation differences in the Group balance sheet. As at 31 December 2019, the consolidation methodology changes that increase the value of Participations by £22,333 million include the following:

- Deconsolidation from the Solvency II balance sheet of insurance, insurance holding and ancillary services undertakings where the Group holding is between 20%-50%, non-financial undertakings and other financial sectors undertakings that are fully consolidated in the Group IFRS balance sheet. In the Solvency II balance sheet, these entities are accounted for under the adjusted equity method and proportional share of own funds according to sectoral rules, gross of intra-group transactions. This has the impact of increasing participations by £22,858 million as follows:
  - Property and financial assets (equities, bonds, other investments and assets held for index-linked and unit-linked contracts) £13,794 million;
  - Loans and mortgages £2,158 million;
  - Other assets and liabilities £(879) million;
  - Technical provisions, net of reinsurance assets £(4,898) million;
  - Financial liabilities other than debts owed to credit institutions £8,226 million; and
  - Payables £4,457 billion.
- Proportional consolidation of the jointly managed insurance entities which are equity accounted under IFRS but are required to be consolidated for Aviva's ownership share under Solvency II. This decreases the participation line by £525 million.

A simplified reporting approach has been adopted for a number of small business units within the Group. Under this approach, IFRS net asset values were used in place of Solvency II valuations under the adjusted equity method. Assets and liabilities held by Friends Provident International Limited were previously presented using this simplified approach, but have been presented on a fully consolidated basis using Solvency II valuations in the current period.

#### 3. Valuation differences

A number of valuation differences exist in respect of the assets and liabilities reported in the Group balance sheet under Solvency II compared to IFRS as at 31 December 2019. The net impact of these differences is an increase in net assets of £6,107 million. This primarily reflects the differences in assumptions and reserving methodology used under Solvency II compared to IFRS.

More detail is included in sections D.1 'Assets', D.2 'Technical provisions' and D.3 'Other liabilities'.

Undertakings for Collective Investment in Transferable Securities (UCITS).
The valuation hierarchy requires assets to be valued by reference to: (1) quoted market prices for the same assets in active markets; (2) quoted market prices in active markets for similar assets with adjustments to reflect differences where quoted market prices for same assets are not available; or (3) alternati ve valuation methods where (1) and (2) are not available. The Group considers markets to be active where transactions take pla sufficient frequency and volume for pricing information to be available on an ongoing basis. Where the Group has concluded that markets are not active, alternative methods for valuation are used. Refer to section D.4 for further

#### **D.1** Assets

Assets have been valued according to the requirements of the Solvency II Directive and related guidance. The basis of the Solvency II valuation principle is the amount for which the assets could be exchanged between knowledgeable and willing parties in an arm's length transaction. There were no changes made to the recognition and valuation bases used or to estimation approaches during the period.

The description of valuation differences between Solvency II and IFRS balance sheets, by material asset class, are provided below:

#### D.1.1 Goodwill and other intangibles

Under IFRS, goodwill represents the excess of cost over the fair value of the Group's share of net assets acquired. Identifiable intangible assets which are recognised as part of a business combination e.g. distribution agreements and customer lists are initially valued at fair value and subsequently amortised over their economic useful lives. Other intangible assets that are acquired separately are recognised at cost and subsequently amortised over their economic useful lives.

Under Solvency II, goodwill is deemed to be a non-permissible asset and assigned a value of £nil. Other forms of intangible assets that can be sold separately, where it can be demonstrated that there is a value for the same or similar assets in an active market, can be recognised. Other intangible assets are deemed not to meet the Solvency II recognition criteria and are assigned a value of £nil. The de-recognition of 'Goodwill' and 'Other intangibles' reduces the Solvency II net assets by £2,781 million.

#### D.1.2 Deferred acquisition costs and acquired value of in-force

Deferred acquisition costs (DAC) and acquired value of in-force (AVIF) policies are reported as assets under IFRS reporting. These are set to £nil in the Solvency II balance sheet and the associated cash flows are included in the measurement of Solvency II technical provisions instead.

#### D.1.3 Loans & mortgages

Under International Accounting Standard (IAS) 39, loans are valued at either amortised cost or fair value.

The majority of loans, amounting to £28,319 million (including mortgages and associated borrowings, equity release loans and healthcare, infrastructure and Private Finance Initiative loans) are presented at fair value, since they are managed as a portfolio on a fair value basis. The fair values of these loans are determined using discounted cash flow models, based on risk-adjusted discount rates which reflect the risks associated with these loans. They are revalued at each period end, with movements in their fair values being taken to the income statement.

The remainder of the loans amounting to £10,260 million under IFRS are carried at amortised cost and, predominantly, include collateral and policyholder loans. These 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.

Under Solvency II, all loans and mortgages are valued at fair value. There is a valuation difference of £20 million recognised to bring the loans carried at amortised cost to fair value under Solvency II. Discounted cash flow models are used to determine fair value, maximising the use of relevant market observable inputs and assumptions. Refer to section D.4 for more information regarding the use of alternative methods of valuation.

#### **D.1.4** Reinsurance recoverables

The reinsurance recoverables as at 31 December 2019 were £12,356 million on an IFRS basis compared to £8,732 million on a Solvency II basis. The lower valuation under Solvency II is driven by the lower valuation of technical provisions (refer to section D.2.4) and a different allowance for counterparty default risk.

Under Solvency II, reinsurance recoverables are calculated as a probability-weighted average of discounted future cash flows relating to reinsurance contracts, using principles similar to those in section 'D.2 Technical provisions' adjusted for expected losses due to counterparty default. Only reinsurance cash flows that relate to the best estimate liability are included and the default allowances depend on the credit rating of the reinsurance counterparty and the amount of exposure. The reinsurance recoverable is calculated consistently with the boundary of the underlying contract to which the recoveries relate.

There is no business reinsured with either an external or internal reinsurance Special Purpose Vehicle (SPV).

#### D.1.5 Receivables (insurance, reinsurance and intermediaries)

The difference between IFRS and Solvency II valuation basis, totalling £2,903 million, arises as insurance receivables which are not past due under IFRS are treated as future cash flows and reclassified to technical provisions under Solvency II (refer to section D.2.4.2).

Under Solvency II, the value of receivables is based on the discounted cash flows arising from the receivable adjusted for the risk of default.

#### **D.1.6 Investments**

#### **Property**

Property completed, held for long-term rental yields and not occupied by the Group is stated at its fair value under IFRS. There is no difference between IFRS and Solvency II valuations. Further information on the valuation of investment properties is included in section D.4.

#### **Participations**

A participation is a Solvency II term for a holding, direct or by way of control, of 20% or more of the voting rights of an undertaking. It can therefore be a subsidiary, an associate or a joint venture. The treatment of participations depends on two factors: the level of influence and the type of entity. This will determine how the participation is valued. The table included within this section, '2. Method of consolidation' sets out the basis upon which participations are valued for Solvency II purposes.

#### Financial investments

All financial investments, primarily consisting of debt securities, equity securities and unit trusts, are measured at fair value for both Solvency II and IFRS purposes. Fair value is obtained from quoted market prices or, if they are not available, by using relevant valuation techniques. Further information on financial investments valued using an alternative method to either a quoted market price or observable active market data is included in section D.4.

The Solvency II valuation of deposits other than cash equivalents is in line with the IFRS treatment.

#### D.1.7 Assets held for index-linked and unit-linked funds

Assets held to cover index-linked and unit-linked funds are measured at fair value for both Solvency II and IFRS purposes. These assets are predominantly financial investments which are valued as described in section D.1.6.

Assets held to cover index-linked and unit-linked funds are classified within their respective individual categories in the IFRS balance sheet and combined together as a single total in the Solvency II balance sheet. These balances are therefore reclassified from the individual asset lines to this category for Solvency II reporting purposes.

#### D.1.8 Changes made to recognition and valuation bases and estimations

No changes were made during the reporting period to the bases and estimation approaches used to recognise and value other assets.

#### **D.2 Technical provisions**

This section provides the following information on the Solvency II technical provisions:

- Definition of Solvency II technical provisions;
- Methodology and main assumptions used in the valuation of the Solvency II technical provisions;
- Total value of Solvency II technical provisions split by material lines of business;
- Comparison of the valuation of Solvency II technical provisions with IFRS technical provisions; and
- Description of the level of uncertainty in Solvency II technical provisions.

#### D.2.1 Definition of technical provisions

The value of technical provisions under Solvency II is equal to the sum of a best estimate liability and a risk margin less the transitional measure on technical provisions (for certain legal entities in the UK).

The best estimate liability is defined as the probability-weighted average of the present value of future cash flows on a market-consistent basis, using the relevant risk-free interest rate term structure.

The risk margin (unaudited) is the present value of the cost of capital held each year in respect of non-hedgeable risks. It is an estimate of the amount in addition to the best estimate liability that a third party would expect to receive in order to take over the insurance obligations of an existing entity.

For technical provisions where the value can be replicated using financial instruments associated with those future cash flows, the best estimate liability and risk margin can be calculated using the value of those financial instruments.

The transitional measure on technical provisions (unaudited) applies over a period of 16 years from 1 January 2016 and at 31 December 2019 was utilised by two entities across the Aviva Group. No insurance undertakings within the Group use the transitional measure on risk-free interest rates.

The following general principles apply to the valuation of technical provisions:

- The calculation of technical provisions is performed on a going concern basis. This means that it can be assumed that contracts run to their expected term (only including premiums within the boundary of the contract) and a proportion of expected future costs (such as general overheads) will be covered by future business. Furthermore, currently fully loaded unit costs are usually assumed to continue which implicitly assumes that future business will replace that running off;
- A policy is recognised as an existing contract once a business unit becomes a party to the contract where this is earlier than the date of inception (more common for general insurance business);
- The definition of a 'best estimate' assumption is one that represents the expected outcome from the range of possible outcomes for future experience of that assumption, and is reasonable and realistic with no margins for prudence included;
- The Group best estimate liabilities are determined at the balance sheet date and are calculated as 100% of the best estimate liabilities that are fully consolidated (i.e. where Group has a dominant influence). The proportional share of best estimate liabilities of entities where there is a significant but non-controlling influence are reflected in the participations line of the Group balance sheet. The Group best estimate liabilities are subject to an elimination of the impact of intra-group transactions with certain exceptions as specified in Solvency II, for example relating to the application of the matching adjustment and certain internal service company arrangements;

- The Group risk margin and transitional measures on technical provisions are not subject to an elimination of intra-group effects; and
- Solvency II rules are applied for the calculation of technical provisions for all material insurance and reinsurance undertakings of the Group including those domiciled outside the European Economic Area, in particular our general insurance operation in Canada.

On 7 December 2017 the PRA issued feedback to life insurers expressing a preference for each component of the unit-linked technical provisions liabilities to be disclosed separately on the Solvency II Balance Sheet. Since this change was not mandated the Group has continued to present the total unit-linked technical provisions across the best estimate liabilities and risk margins, in line with previous years. Given the change is presentational only, it has no impact on the measurement of own funds or of technical provisions.

#### D.2.2 Technical provisions methodology and assumptions

Material changes in the relevant assumptions made in the calculation of technical provisions compared to the previous reporting period can be found in section D.2.2.6.

## D.2.2.1 Methodology and non-economic assumptions for life business best estimate liability (a) Valuation methodology

A gross premium valuation method has been used to calculate the best estimate liability for most types of products, taking into account all future cash flows (including any charges related to embedded options) required to settle the life insurance liabilities. For products such as UK and French with-profits participation business, more sophisticated methods such as stochastic simulation approaches are used.

Future investment returns are projected in order to determine the value of items such as annual management charges, investment expenses and the value of investment guarantees on with-profits participation business.

#### Cash flow modelling

A deterministic approach, producing point estimates based on best estimate assumptions, is used for valuing most of the Group's business. The exception is for contracts with embedded options and guarantees, in particular with-profits participation business, where a stochastic approach based on the average of a number of scenarios is used.

The best estimate liability is calculated separately for cash flows in different currencies.

Reinsurance cash flows are modelled as well as cash flows gross of reinsurance. The valuation of those reinsurance cash flows are reported as an asset (see section D.1.4).

#### Policy grouping

The cash flow projections used in the calculation of best estimate liabilities for life insurance business are made separately for each policy with the exception of some with-profits participation business where policies are grouped.

#### Minimum technical provision per policy

Technical provisions for insurance contracts are allowed to be negative where future cash inflows are expected to exceed future cash outflows.

The technical provisions of an insurance (or reinsurance) contract may be lower than the surrender value available to the policyholder of the underlying contract. This means that if the sum of the best estimate liability and the risk margin of a contract is lower than the surrender value of that contract, then the value of insurance liabilities is not increased to the surrender value of the contract.

#### Contract boundaries

The calculation of best estimate liabilities allows for any boundaries of the insurance contract. At the contract boundary date, all future premiums beyond that point are excluded as are any obligations that would have accrued on these additional premiums. However, obligations due to premiums before this date are recognised.

Where a contract can be unbundled into two components and one of the components is subject to a contract boundary then a restriction is applied to this component.

A boundary exists where the insurance undertaking has a unilateral right to: terminate the contract; reject premiums payable under the contract; or amend the premiums or benefits payable under the contract at a future date in such a way that the premiums fully reflect the risks. Any obligations that relate to cover which may be provided after that date do not belong to the contract, unless the undertaking can compel the policyholder to pay the premium for those obligations.

Where a contract has no insurance risk (compensation for uncertain events) or financial guarantees that have a discernible effect on the economics of the contract then a boundary restriction exists.

Where a boundary exists, relevant non-economic assumptions are adjusted to correspond with the restriction, for example, by setting expense assumptions on a paid-up basis where applicable.

UK Life unit-linked policies invested in charge-capped funds (where the charge cap is set at a level to provide a discernible benefit) do not have a contract boundary restriction and all expected future premiums are included in the valuation of technical provisions. As a consequence, auto-enrolment default funds, stakeholder pensions and products with explicit charge caps promised to policyholders (set at a similar level to stakeholder pensions) do not have a contract boundary restriction.

For France Life 'multi-support' savings contracts, where the policyholder can invest in both participating and unit-linked funds, no future premiums are included for either component of these contracts, except where a discernible benefit is provided. A discernible benefit is defined for participating funds where the guaranteed rate of return is greater than 2.5% p.a. and for unit-linked funds where there are guarantees related to mortality tables or technical rates for annuity conversion.

#### Financial options and quarantees

For options, guarantees and other non-linear cash flows, a stochastic approach to valuation is used unless the risk is immaterial or there is insufficient data to calibrate the model.

For stochastic assessments in relation to interest rates, no floor is applied (i.e. interest rates can be negative). For France Life, stochastic scenarios are calibrated to swaption market prices instead of market observed swaption volatilities and are adjusted using other statistical techniques, as agreed with the French regulator (ACPR) to ensure their appropriateness.

#### Future management actions

As part of the realistic assumptions, the actuarial and statistical methods used to calculate technical provisions take account of future management actions. These actions reflect what management would reasonably expect to do in the circumstances of each scenario over the duration of the projection. A wide range of future management actions is incorporated into the technical provisions. The types of future management actions are not restricted provided they meet the objective, realistic and verifiable standards required by Solvency II.

Future management actions typically relate to:

- Changes in asset allocation;
- Changes in bonus rates; and
- Changes in product or expense charges.

The impact of any assumed management actions on other assumptions is taken into account within a certain valuation scenario. In particular, the effects of management actions on policyholder behaviour or on the related expenses are taken into account. Future management actions allow for relevant legal or regulatory constraints and, for a given scenario and where material, reflect the balance between the degree of competitiveness sought and the risk of dynamic lapses.

Each business unit produces, at least annually, a future management action plan, which is updated and signed off by the Board or delegated sub-committee. This action plan covers the identification of actions that are relevant to the valuation of technical provisions, the specific circumstances in which the actions would or would not be able to be carried out and a description of how the actions have been reflected in the calculation of the best estimates.

#### Future policyholder behaviours

The cash flow projection allows for the probabilities that policyholders exercise certain options, for example to surrender a policy or to take up a guaranteed annuity rate by means of assumptions discussed in the next section. Certain behaviours are assumed to vary with market conditions, for example the propensity of some types of with-profits policyholders in UK Life and France Life to surrender their policies.

#### Ring fenced funds (RFF)

The treatment of cash flows between RFF and other funds is also taken into account. In the UK, for example, where there is a charging arrangement between a ring fenced (with-profits) fund and a non-profit fund, the technical provisions in the with-profits fund are on a fees basis and a technical provision in relation to the excess of fees over expenses (a negative liability) is held outside the RFF in the non-profit fund.

The technical provisions take into account all payments to policyholders (and beneficiaries) including future discretionary bonuses, which are expected to be made, whether or not those payments are contractually guaranteed.

Future cash flows are split into guaranteed and discretionary benefits because the loss absorbing capacity of technical provisions is limited by the technical provisions relating to future discretionary benefits.

In line with Solvency II requirements, discretionary benefits (and hence technical provisions), exclude payments representing surplus funds where explicitly defined in national law (see section E.1.4). For Aviva, this is applicable for UK and Ireland with-profits funds and in line with guidance received from the PRA, only future benefits arising from enhancements which are regarded as permanent have been assumed in the calculation of technical provisions.

#### Provision pour Participation aux Excédents (PPE)

Regulation has been introduced in France in 2019 that allows French insurers to exclude part of the PPE from technical provisions (see section E.1.4).

#### (b) Valuation components and material non-economic assumptions

Cash flows in scope

For life insurance obligations, all cash flows (including any charges related to embedded options) required to settle the insurance liabilities over their lifetime are taken into account. The table below summarises the main cash flows that are modelled (gross technical provisions and reinsurance recoverables):

Gross cash inflows	Gross cash outflows
Future premiums (gross of commissions and policyholder tax) Annual management (and other) charges in unit-linked business	Benefits including: Claims payments, Maturity benefits, Death and critical illness benefits, Disability benefits, Surrender benefits, Annuity payments, Profit sharing bonuses. Expenses including administrative expenses, investment management expenses, claims management expenses (direct and indirect), acquisition expenses including commissions which are expected to be incurred in the future.
	Other items which are charged to policyholders (or required to settle the obligations): Taxation.
Reinsurance cash inflows	Reinsurance cash outflows
Reinsurance recoveries in respect of gross claims/benefit payments. Reinsurance commissions including profit commissions. Floating leg payments in respect of longevity hedges.	Future reinsurance premiums (including adjustment premiums and reinstatement premiums). Commissions. Reinsurance refunds. Fixed leg payments in respect of longevity hedges.

#### Future premiums

Future premiums are projected using decrement assumptions appropriate to each class of business, which include persistency and mortality. Recent persistency experience is reviewed annually to assist with setting assumptions for the continuation of premiums being paid by policyholders. In addition, consideration is given to factors that may cause future experience to differ from past experience such as changes to pensions regulations. Assumptions are set by product, and vary based on expected experience, which may vary by duration, age and size of policy.

#### Expenses

In determining the best estimate liability, future expense cash flows are a combination of the following elements:

- Cash flows arising from expenses that will be incurred in servicing all liabilities related to existing insurance contracts over their future lifetime, including future expected commission payments;
- Exceptional costs in excess of the above cash flows which includes non-discretionary project expenses; and
- Allowances for investment expenses which are expected to be incurred in managing the asset portfolio.

Expense cash flows take into account assumptions about how expenses will develop in the future (e.g. legal, demographic, medical, technological, social or economic changes in the environment). In particular, future expenses are adjusted for expense and claims inflation. Any expected increases in future expenses are also allowed for. For example, if it is known that on renewal of an external service agreement costs are expected to increase, the expense cash flows reflect this increase.

Expenses are appropriately allocated between future and existing business. Expense assumptions do not allow for future cost reductions where these have not yet been realised, although start-up companies are permitted to take into account anticipated cost reductions relating to the first 5 years after their licensing.

Fixed expenses are allocated between lines of business and converted to an equivalent 'per policy' charge for modelling, using the policy counts for in-force business in each fund.

Investment management expenses are allowed for as an explicit cash flow, calculated as a proportion of the assets under management.

Where internal companies provide administration, investment management or other services and are defined as 'Ancillary Service' undertakings under Solvency II, then the value of profits or losses arising from these services is included in the value of technical provisions for Aviva plc (that is a 'look-through' approach to the underlying cost is adopted to assess the expense cash flows). However, for services from 'Other Financial Sector' undertakings (or other undertakings presented as participations on the Solvency II balance sheet) a 'look-through' approach is not adopted and the expense cash flows are assessed using the service fee charged to the life operation.

#### Death and other claim benefits

Death and other claim benefits are projected using decrements appropriate to each class of business, including persistency, mortality and morbidity. For contracts which have fixed benefit increases, the valuation provides for these increases within the discounted cash flow method.

Local, generally accepted, published standard mortality tables are used for different categories of business as appropriate. The tables are based on relevant experience and show mortality rates, by age, for specific groupings of people. Mortality assumptions for UK 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	2019	2018
Non-profit	AM00/AF00 or TM08/TF08 adjusted for smoker status and age/sex specific factors	AM00/AF00 or TM08/TF08 adjusted for smoker status and age/sex specific factors
Pure endowments and deferred annuities before vesting	AM00/AF00 adjusted	AM00/AF00 adjusted

#### Annuity payments

The conventional immediate and deferred annuity business is valued by discounting future benefit payments with an allowance for mortality, including future improvements in mortality. Mortality assumptions for non-profit business are set with regard to Company experience and general industry trends. The mortality tables used in the valuation are summarised below:

Mortality tables used	2019	2018
Pensions business and general annuity business	PMA08 HAMWP /PFA08 HAMWP adjusted plus	PMA08 HAMWP /PFA08 HAMWP adjusted plus
	allowance for future mortality improvement	allowance for future mortality improvement
Bulk purchase annuities	CV3	CV2

For the largest portfolio of pensions annuity business, the underlying mortality assumptions for males are 107.5% of PMA08 HAMWP adjusted (2018: 108.0% of PMA08 HAMWP adjusted) with base year 2008 (2018: 2008); for females the underlying mortality assumptions are 101.5% of PFA08 HAMWP adjusted (2018: 101.0% of PFA08 HAMWP adjusted) with base year 2008 (2018: 2008).

Improvements are based on 'CMI\_2018 (S=7.25) Advanced with adjustments' (2018: 'CMI\_2017 (S=7.5) Advanced with adjustments') with a long-term improvement rate of 1.75% (2018: 1.75%) for males and 1.5% (2018: 1.5%) for females. The CMI\_2018 tables have been adjusted by adding 0.25% (2018: 0.25%) and 0.35% (2018: 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\_2018 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). The tapering approach is unchanged from that used at 2018. 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.

#### Тах

The best estimate liability includes tax payments charged to policyholders or those which are required to settle the insurance liabilities. Policyholder tax is modelled as a separate cash flow rather than implicitly. However, the cash flows in the actuarial models represent future income and expenses cash flows only and do not take into account any brought forward tax attributes such as deferred acquisition expenses, excess management expenses or unrealised gains. These are valued in the deferred tax liability (or asset) on the Solvency II balance sheet. This treatment ensures there is no double counting of tax due or tax relief.

Reserves are established (or credit is taken) for tax on unrealised gains (or losses) for linked business as part of the technical provisions.

#### Options and guarantees

The most material options and guarantees are in the Group's UK with-profits funds and French participating business. The valuation methodology for these is covered in section (a) above.

#### Reinsurance cash flows

The valuation of reinsurance cash flows is not a component of technical provisions, however, its value is included within reinsurance recoverables in the balance sheet (see section D.1.4).

#### Events not in data (ENID)

The best estimate assumptions allow for rare events and asymmetries. The term ENID refers to any events not deemed to be captured by the data which need to be allowed for within the best estimate calculation to allow for the uncertainty in the future cash flows.

From a life perspective, business units consider ENID through either adjusting the best estimate assumptions to ensure the likely impact of the event is included or using a scenario approach, where they are expected to be material. Expert judgement is applied and events that could (but not necessarily would) be included are: legislative change, severe pandemic and breakthrough cures for diseases.

#### (c) Transitional arrangements (unaudited)

Aviva Group applies the transitional measure on technical provisions for the following operations:

Business unit	Legal entity
UK Life	Aviva Life & Pensions UK Limited
Aviva International Insurance	Aviva International Insurance Limited

The applications for the UK operations were approved by the PRA for use from 1 January 2016.

The transitional measure on technical provisions is required by the PRA to be recalculated every two years, or more frequently where the risk profile has materially changed. The following legal entities reset their transitional measure at 31 December 2019:

- Aviva Life & Pensions UK Limited (UKLAP); and
- Aviva International Insurance Limited (AII).

The transitional measure on technical provisions (TMTP) decreases linearly over 16 years from 1 January 2016 to 31 December 2031. If the transitional measure is recalculated, the recalculated amount is decreased linearly over the remaining period till 31 December 2031.

Within the QRTs, the transitional deduction is applied at the legal entity level (or at the homogeneous risk group level within a legal entity) to the risk margin first and then to the best estimate liabilities only when the risk margin has been exhausted. Where the total transitional deduction exceeds the total risk margin (at the homogeneous risk group level), the excess is allocated against the best estimate liabilities in proportion to the contribution of each line of business to the total deduction. At 31 December 2019, the reduction to the best estimate liabilities from the transitional measure on technical provisions across the Group was £230 million (unaudited) (2018: £852 million) out of a total reduction to technical provisions of £4,480 million (unaudited) (2018: £4,599 million).

The unrestricted transitional deduction is based on the difference between:

- The technical provisions on a Solvency II basis, net of reinsurance recoverables, including the impact of the matching adjustment and volatility adjustment where applicable, calculated in accordance with the approach described in this section of the SFCR at the valuation date; and
- The Solvency I position, which in the UK is the greater of the Pillar 1 and Pillar 2 individual capital assessment (ICA) technical provisions, net of reinsurance recoverables, and allowing for any individual capital guidance (ICG) applicable at the valuation date.

The transitional relief is restricted, if necessary, to ensure that the Solvency II financial resources (defined as the sum of the Solvency II technical provisions after the application of transitional relief, other liabilities and the solvency capital requirement) are no lower than the more onerous of Solvency I Pillar 1 financial resources and Solvency II Pillar 2 financial resources (defined as the sum of the ICA technical provisions, other liabilities and ICA/ICG). The Solvency II financial resources are determined including new business since the effective date of Solvency II. For AII, the financial resources test is applied in total, so across life and non-life insurance business.

The restriction mentioned above no longer applies to any of the legal entities in the Group following the recalculation of the TMTP at 31 December 2019.

At the Group level, the transitional impact is the sum of the individual legal entity transitional impacts (i.e. the impact of intra-group transactions is not eliminated).

#### Impact of the transitional measures

The impact of long-term guarantees and transitional measures is disclosed in QRT S.22.01.22 (see section F.2) using a step-by-step approach.

The Group impact of removing the transitional measure on technical provisions is set out below:

31 December 2019 Unaudited	Including transitional relief £bn (A)	With transitional relief set to zero £bn (B)	Impact of removing transitional relief £bn
Technical provisions	361.4	365.9	4.5
Basic own funds	27.5	23.7	(3.8)
Eligible own funds to meet SCR	28.8	25.0	(3.8)
SCR	15.7	16.2	0.5

The impact of the transitional measure on the SCR arises because it is treated as a reduction in liabilities, which generates a corresponding deferred tax liability.

The SCR represents a 1 in 200 loss scenario and is allowed to be reduced by the deferred tax asset created by the loss as long as there are sufficient liabilities to offset against the loss. The transitional relief tax liability can be used as a source of capital to justify the use of the deferred tax asset generated by the SCR scenario, and so removing transitional relief may act to increase the SCR.

## D.2.2.2 Methodology and non-economic assumptions for non-life business best estimate liability (a) Valuation methodology

The best estimate liabilities are defined as the probability weighted average of future cash flows discounted on a market-consistent basis, using the relevant risk-free interest rate term structure.

For non-life business units, the future cash flows included are those that are required to settle the following insurance contracts, which include:

- Cash flows arising from in-force and expired contracts;
- Cash flows arising from contracts that have not yet incepted but where the policyholder has accepted our quote at the valuation date ('pre-inception contracts'); and
- Cash flows resulting from future cancellations or endorsements by the policyholder of in-force and pre-inception contracts.

The best estimate liabilities are calculated in two parts:

• Premium provision: The premium provision is the discounted best estimate (mean) of cash flows relating to unearned premiums and future claim events that have not yet occurred, but which are covered by existing and legally binding pre-inception contracts. Premium provisions are typically estimated by selecting an exposure measure and using that to establish the unearned and pre-inception exposure. Claims cost projections are set for each future period using trends in historic claims data adjusted for known anomalies in the data that are not expected to be repeated in the future, changes in mix and volume of business and to allow for the impact of projected claims inflation. These cost projections are then applied to the predicted exposure to determine the cash flows; and

• Claims provision: The claims provision is the discounted best estimate (mean) of cash flows relating to earned exposure and past claim events that occurred before the valuation date, whether reported or not. The ultimate cost of outstanding claims is 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.

#### Periodical payment orders (PPOs)

The Group's best estimate liabilities for PPOs, in line with other non-life business, are valued based on the present value of future cash flows discounted using relevant risk-free interest rates.

#### Lump sums payable to bodily injury claimants

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 Lord Chancellor on 15 July 2019 to increase the Ogden discount rate from the minus 0.75% set in 2017 to minus 0.25% (rate retained at minus 0.25% in Scotland), balance sheet reserves in the UK have been calculated using a discount rate of minus 0.25% at 31 December 2019. At December 2018, balance sheet reserves were calculated using a rate of 0.00%. The Ogden discount rate is expected to be reviewed by the Lord Chancellor within five years.

#### Contract boundaries

The circumstances for when a contract boundary exists are the same as described above for life business in section D.2.2.1.

Non-life business units treat business written by intermediaries on a delegated authority basis on a 'look-through' basis, including on the balance sheet policies where a legal obligation has been created by the intermediary.

Non-life business units assume outwards reinsurance is renewed in accordance with level 3 guidelines. This is done using the 'principle of correspondence', whereby a proportion of the full premium and recoveries are recognised to reflect the fact that the renewed policy will also cover primary policies which are not yet within the contract boundary. For reinsurance purchased or renewed before the valuation date, including pre-inception contracts, Aviva uses the principle of legal obligations and allows for the full cost of the reinsurance unless they are legally entitled to a refund if no further exposure is written.

#### (b) Valuation components and material non-economic assumptions

The key assumption for many projection techniques, is that past experience is a good guide to future claim development. This is monitored for each reserving class by frequent contact with relevant experts (e.g. claims handlers, underwriting and pricing). Where appropriate, expert judgements are used to reflect situations where this is not thought to be the case.

For estimating volumes of pre-inception business, data on renewal and new-business rates are combined with expert judgements and knowledge of sales and intermediary practices are used to derive appropriate volume assumptions.

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, for example, to reflect one-off occurrences, changes in external or market factors such as public attitudes to claiming, economic conditions, levels of claims inflation, judicial decisions and legislation, as well as internal factors such as portfolio mix, policy conditions and claims handling procedures 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 table below summarises the main cash flows modelled:

Provision	Asset/liability type	Cash in-flows	Cash out-flows
Premium provision	Gross liability	Future premiums, including those in respect of pre- inception contracts and instalment premiums on incepted contracts, gross of commissions and premium tax. Receivables from salvage and subrogation in respect of future claims from future premiums.	Future claim payments relating to in-scope future premiums, ENID and pre-inception contracts.  Expenses in respect of future claims including:  Administrative expenses;  Investment management expenses;  Claims management expenses (direct and indirect);  Acquisition expenses (including commissions which
			<ul> <li>are expected to be incurred in the future); and</li> <li>Other gross cash flow items in respect of future claims that are charged to policyholders such as premium tax</li> </ul>
Premium provision	Reinsurance recoverable	Reinsurance recoveries in respect of gross future claims from future premiums, assuming reinsurance is renewed, allowing for the principle of correspondence. Reinsurance commissions receivable in respect of future claims, including override and profit commissions.	Future reinsurance premiums related to in-scope future premiums, including adjustment premiums and reinstatement premiums. Reinsurance commissions payable in respect of future claims, including override and profit commissions.
Claims provision	Gross liability	Receivables from salvage and subrogation in respect of incurred claims. Future premiums, including those in respect of reinstatements on inwards reinsurance and adjustment premiums.	Future payments on incurred claims, including those in respect of annuities stemming from non-life insurance contracts and ENID; Expenses in respect of incurred claims including:  • Administrative expenses;
			<ul> <li>Investment management expenses; and</li> </ul>
			• Claims management expenses (direct and indirect).
Claims provision	Reinsurance recoverable	Reinsurance recoveries in respect of gross earned business. Reinsurance commissions receivable in respect of incurred claims, including override and profit commissions.	Reinsurance refunds in respect of incurred claims; Reinsurance commissions payable in respect of incurred claims, including override and profit commissions.

#### Expenses

The treatment of expense cash flows is the same as described above for life business in section D.2.2.1.

For non-life businesses expenses are allocated to claims provisions and premiums provisions as appropriate. Allowances are made for variable acquisition cost cash flows, for example, profit sharing arrangements, where necessary.

#### Reinsurance cash flows

The valuation of reinsurance cash flows is not a component of technical provisions, however, their value is included within reinsurance recoverables in the balance sheet (see section D.1.4).

#### Events not in data

The term ENID is defined in line with the definition for the life business as set out in section D.2.2.1.

From a non-life business perspective, two types of ENID are considered:

- 'Known unknowns' possible future scenarios that can be anticipated; and
- 'Unknown unknowns' future scenarios that are completely unexpected.

No allowance is made for 'unknown unknowns' within technical provisions as, by definition, they cannot be known or quantified.

Allowances for 'known unknowns' are made using scenario analysis to cover any foreseeable event with a potentially material impact. Aviva Group specifies a core list of events which are considered as the starting point for the analysis. Impacts are estimated gross of reinsurance, with recoveries estimated separately. The amounts included within the best estimate liabilities are on a discounted basis.

ENID are considered both at line of business level, and at portfolio level with allocations to lines of business, depending on the scenario being considered.

#### Cash flow patterns

Cash flow payment patterns have been set by line of business based on historic data and actuarial judgement. Cash flow patterns are separately analysed for each geographic area and each line of business. Certain lines of business are also further analysed by claim type or type of coverage.

Cash flows are modelled in monthly time intervals for the first 10 years and annually thereafter. This approach is taken for both long tail and short tail business. Payment profile assumptions are not produced separately for each accident year.

#### Future management actions

Additional assumptions in relation to the likely future reinsurance purchasing decisions are required when determining the future reinsurance recoveries and future reinsurance premium cash flows.

There are no future management actions assumed in the calculation of the non-life best estimate liabilities.

#### Periodical payment orders (PPOs)

The cash flows that are considered when calculating the best estimate liabilities for PPOs are derived from:

- Payment of claims benefits: with the majority of PPOs providing payments relating to care needs of the claimant, with a smaller number providing loss of earnings payments; and
- Expenses: there are relatively small (compared to the size of claims benefits) administrative costs in relation to each PPO.

PPO best estimate liabilities use life insurance actuarial methods and techniques to estimate appropriate assumptions for each individual claimant. Assumptions are made in relation to the future longevity of each PPO. These assumptions are based on the latest, general mortality assumptions for the population as a whole (including future expected changes in mortality), as well as any impairment to life expectancy on individual PPOs based on independent medical opinions.

PPO payments escalate based on indices specified at the time of settlement of the PPO. The majority of PPO claims in the UK escalate based on an Annual Survey of Hours and Earnings index (ASHE) with a smaller number escalating in line with the Retail Prices Index (RPI). Assumptions are therefore required for the future escalation of these indices. In the UK, it is assumed that, over the longer term, the future escalation of the ASHE indices will be linked to general inflation within the UK economy and uses market consistent views of future RPI inflation as the basis to project future ASHE inflation. Adjustments are then made to allow for expected differences between future ASHE inflation and future RPI inflation.

#### D.2.2.3 Economic assumptions

The risk-free interest rate curves used to value the technical provisions reflect the basic risk-free interest rate curves, volatility adjustment and fundamental spread for the matching adjustment published by EIOPA on their website. The year end 2019 risk-free interest rate curves were published on 8 January 2020 and are illustrated for key currencies and durations in the tables below.

Economic assumptions are derived actively, based on market data as at the end of each reporting period.

#### (a) Basic risk-free interest rates

The risk-free rate curves used to value the technical provisions at full year 2019 are stated in the table below, including a credit risk adjustment (CRA).

Risk-free rates	1 year	5 years	10 years	15 years	20 years	40 years
GBP	0.7%	0.8%	0.9%	1.0%	1.0%	1.0%
EUR	(0.4)%	(0.2)%	0.1%	0.4%	0.5%	1.8%
CAD	1.9%	1.9%	2.0%	2.2%	2.2%	2.4%

Where swaps do not exist or are not sufficiently liquid or reliable from a certain point, the basic risk-free interest rate is extrapolated in a smooth progression. EIOPA has prescribed by currency the entry points for extrapolation, the duration to convergence and the ultimate forward rate (UFR), as can be seen in the table below.

Currency	Entry point for extrapolation of risk-free rates	Duration to convergence to ultimate forward rate	Ultimate forward rate
GBP	50	40	3.9%
EUR	20	40	3.9%
CAD	30	40	3.9%

#### (b) Matching adjustment (MA)

Aviva applies a MA to certain obligations in UK Life and AII (see section F.4).

The MA results in an increase applied to the risk-free rate used to value insurance liabilities where the cash flows are relatively fixed (e.g. no future premiums or surrender risk) and are well matched by assets that are intended to be held to maturity and have cash flows that are also relatively fixed. The intention is that, if held to maturity, the business can earn the additional yield on these assets that relate to illiquidity risk.

#### Group methodology

Any MA benefit received by internal reinsurers (on their own retained risks) is preserved in the Group balance sheet. An adjustment is made to the Group consolidated best estimate liabilities to reflect the value of AII MA benefits.

For the purposes of the UKLAP MA, it is assumed that the internal equity release securitisations do not collapse when preparing the Group consolidated best estimate liabilities.

The matching adjustments used at 31 December 2019 are shown in the table below.

Legal entity (Undertaking)	Matching adjustment portfolios	MA (bps)	Obligations to which a matching adjustment is applied	Assets used to back obligations
UKLAP	UKA FLL NPF	109 78	All UKA insurance liabilities and FLL annuity business (as defined in the approved application in 2019 to merge the previous Friends Life MA portfolios)	Government bonds (including inflation-linked government bonds) Corporate bonds (including inflation-linked corporate bonds and asset backed securities) Private placements (including inflation-linked private placements) Fixed rate commercial mortgages and project finance/infrastructure Interest rate swaps, currency swaps and inflation swaps CDS (including named CDS and pair-trades) Equity release fixed rate notes Cash
All	Business reinsured from UKLAP	109	Business ceded from UKA into All	

#### Assets eligible for inclusion

- Equity release mortgage assets meet the criteria for inclusion when such assets are securitised into an internal SPV which issues a fixed coupon note secured by those assets to the MA portfolio of the insurance undertaking, which is the case for UKLAP. Prior to such restructuring, equity release mortgage assets do not meet the criteria for inclusion. The equity release mortgage assets that have been restructured in this way do not meet the IFRS de-recognition criteria and are therefore measured on the Solvency II balance sheet assuming the internal securitisation has not occurred.
- Assets that do not have an external rating such as commercial mortgages and equity release mortgage assets eligible for inclusion within the MA are assigned a fundamental spread (which represents expected losses due to defaults and downgrades) based on an internal credit rating by our asset managers, in accordance with an internal rating methodology framework (see section C.3.1 (unaudited)).

#### Internal reinsurance

All uses an identical MA as calculated for UKLAP, for the business ceded from the latter into the former, as the quota share arrangement between the two entities are set up in such a way as to ensure identical eligible asset and liability profiles.

The reinsurance recoverable in UKLAP associated with these ceded liabilities is measured using the basic risk-free interest rate term structure without a MA. For consistency, the gross of reinsurance best estimate liability in AII is measured using a MA determined from the yield on all the assets in the portfolio. The part of the portfolio relating to the reinsurance recoverables has a risk-adjusted spread of zero (i.e. a MA of zero).

#### Impact of matching adjustment

The impact of long-term guarantees and transitional measures is disclosed in QRT S.22.01.22 (see section F.2). Note that the quantification of the impact of setting the MA to zero is after the removal of transitional relief on technical provisions and the setting of the volatility adjustment to zero. In practice the impact may be lower as the removal of the MA would result in an increase in the transitional relief on technical provisions and the Group would also look to obtain approval to use the volatility adjustment in place of the MA.

The quantification of the impact of setting the MAs to zero at a Group level is set out below:

31 December 2019	Including matching adjustment £bn (A)	With matching adjustment set to zero £bn (B)	Impact of removing matching adjustment £bn (C) = (B) - (A)
Technical provisions (unaudited)	366.6	373.3	6.7
Basic own funds	23.4	16.6	(6.8)
Eligible own funds to meet SCR	24.7	17.9	(6.8)
SCR (unaudited)	17.2	23.9	6.7

#### (c) Volatility adjustment (VA)

The VA is intended to reflect temporary distortions in spreads caused by illiquidity in the market or extreme widening of credit spreads, in particular in relation to government bonds. VAs are prescribed by EIOPA and are published along with the basic risk-free interest rate curves on their website.

In the UK, the PRA has approved applications for the VA to be applied in UKLAP, Aviva Insurance Limited (AIL) (non-life operation) and AII (life and non-life operation) (see section F.4). In the Group's significant European Economic Area (EEA) operations outside the UK (France, Ireland, Italy and Poland), VA has been approved for Ireland by the Irish regulator (Central Bank of Ireland) and is applied in France and Italy where no such approval applications are required. Where applicable, the VA is applied to all those liabilities where a MA is not applied. The exception is UK Life unit-linked business where, in line with the approved applications, no allowance for the VA is made. VAs for each currency are listed in the table below as set out in the Commission Implementing Regulation Reference (EU) 2019/228. Note that no VA is used for Turkey, Singapore, China, Hong Kong and India as these are not provided by EIOPA.

	31 December 2019
Volatility adjustment	(bps)
GBP	15
GBP EUR	7
PLN	8
PLN CAD	33_

The impact of long-term guarantees and transitional measures is disclosed in QRT S.22.01.22 (see section F.2) using a step-by-step approach. Note that the quantification of the impact of setting the volatility adjustment to zero is after the removal of transitionals. In practice the impact may be lower as the removal of the VA would result in an increase in the transitional relief on technical provisions (for those entities in the Group with transitional relief approval).

The impact at a Group level of setting the VA to zero is set out below:

31 December 2019	Including the volatility adjustment £bn (A)	With volatility adjustment set to zero £bn (B)	Impact of removing volatility adjustment £bn (C) = (B) - (A)
Technical provisions (unaudited)	365.9	366.6	0.7
Basic own funds	23.7	23.4	(0.3)
Eligible own funds to meet SCR	25.0	24.7	(0.3)
SCR (unaudited)	16.2	17.2	1.0

## D.2.2.4 Risk margin methodology and assumptions (unaudited) (a) Overall methodology and assumptions

The risk margin is calculated for each legal entity using a cost of capital approach allowing for diversification between lines of business and is on a net of reinsurance basis.

The calculation of the risk margin is defined as the product of the cost of capital rate and the SCR in respect of non-hedgeable risks at each future year discounted using the risk-free rate.

The cost of capital rate is the cost in excess of the risk-free rate, to the third party taking over the liabilities, of raising and holding capital to support the non-hedgeable risks over the lifetime of the business. The same cost of capital rate is used by all insurance companies and is prescribed by EIOPA at 6% per annum.

#### Discount rate

As the SCR in the risk margin calculation takes into account non-hedgeable risks only, the rate used to discount the projected non-hedgeable SCR is the basic risk-free rate (including credit risk adjustment), with no allowance for VAs or MAs, where applicable.

#### Non-hedgeable risks

The SCR in the risk margin calculation takes the following risks into account:

- Life underwriting risk;
- Health underwriting risk;
- Non-life underwriting risk;
- Market risk\*;
- Counterparty default risk with respect to reinsurance contracts, arrangements with debtors and any other material exposures which are closely related to the insurance obligations\*\*; and
- Operational risk.
- The risk margin calculation explicitly excludes non-hedgeable interest rate risk. Only material non-hedgeable market risks are included in the risk margin calculation. All market risks in respect of investment assets are considered hedgeable. Careful consideration has been given to the extent to which inflation risk in respect of the liabilities should be regarded as hedgeable. In all markets where there is a deep, liquid and transparent market for instruments whose value is linked to price inflation risk ince inflation risk on the opening best estimate liabilities is considered hedgeable. However, the additional inflation risk is considered hedgeable. The exception to this is in Canada where the market for inflation linked assets is neither deep nor liquid, and hence none of the inflation risk is considered hedgeable.
- \*\* While reinsurance credit risk, and some underwriting risks may be hedgeable in practice using credit default swaps, longevity swaps etc., the risk margin calculation assumes that these risks are not hedged after the business is transferred to the third party.

#### Projection of the non-hedgeable risk SCR

In order to project the non-hedgeable SCR which underpins the risk margin, simplifications are applied from the hierarchy set out by EIOPA to ensure that the risk margin calculation remains proportionate to the nature, scale and complexity of the business.

The projected risks are then aggregated using a correlation matrix approach at each future time period. For internal model business units, there is an adjustment for non-linearity and interactions as observed in the internal model. For business units using the standard formula approach, no allowance is made for non-linearity or risk interactions.

#### Loss absorbing capacity

The loss absorbing capacity of technical provisions assumed in the projection of the non-hedgeable risk SCR is consistent with the loss absorbing capacity of technical provisions assumed in the calculation of the SCR. No allowance for the loss absorbing capacity of deferred taxes is included in the risk margin.

#### Allocation of the risk margin to Solvency II line of business

The risk margin is allocated across lines of business using an approximation approach for the internal model business units. For standard formula business units, one of the two prescribed methods is adopted:

- Allocation according to time zero non-hedgeable SCRs; and
- Allocation according to present value of non-hedgeable SCRs.

#### (b) Life business methodology

In projecting the non-hedgeable risk SCR, the life businesses generally follow the second approach in the hierarchy provided by EIOPA, which approximates the individual risks or sub-risks to be used for the calculation of future SCRs. For each risk, so-called risk carriers are used, where a suitable statistic is chosen which can be readily projected and used as a proxy for the projected size of the risk relative to its size at the balance sheet date. The exception to this is for longevity risk in UKLAP non-profit funds, where the first approach in the hierarchy is used (i.e. the projection is exact and no approximation is applied). This approach is mirrored by AII for longevity.

The projected risks are then aggregated using a correlation matrix approach at each future time period to derive the non-hedgeable risk SCR. Adjustments are made to reflect the differences between the correlation matrix approach and the internal model.

#### (c) Non-life business methodology

In projecting the non-hedgeable risk SCR, non-life internal model businesses (UK and Canada), adopt an enhanced version of the second approach in the EIOPA hierarchy where the projected SCR by modelled calculation class and risk category allows for an increase in relative volatility as the risks run-off to reflect that smaller portfolios are inherently more volatile. Non-life business units that do not use the internal model (e.g. France) generally apply a method that lies between levels two and three in the EIOPA specified hierarchy of simplifications.

UK GI actively participates in the deep and liquid hedging market in order to manage claims inflation risk and regards price (RPI) inflation risk in respect of the existing UK GI liabilities as hedgeable. Elements of claims inflation risk other than price (RPI) inflation risk are considered non-hedgeable. However, it is considered imprudent to regard the additional inflation risk that might arise, from adverse movements in other risks, primarily latent and annuity risks, as hedgeable as these 'cross-term' risks could not be hedged at outset. Thus price (RPI) inflation risk relating to the best estimate liabilities is treated as hedgeable, but the 'cross-term' element of the inflation risk is treated as non-hedgeable.

With regard to future management actions, UK GI allow for the reinsurance of PPO risk to UK Life with the reinsurance cover linked to RPI inflation.

For Canada GI, the risk margin is calculated at business unit level which is equivalent to an entity by entity approach due to the reinsurance structures in place between the legal entities.

#### (d) Allowance for diversification

The risk margin allows for diversification as follows:

- For all business units, diversification is taken into account at individual legal entity level. Where the overall portfolio contains both life and non-life business, diversification is not allowed. This only affects AII;
- For internal model entities, diversification in the risk margin calculation is assessed consistently with the Internal Model SCR. In particular, for UKLAP and AII diversification between the MA portfolios and the rest of the business is permitted within each entity; and
- No diversification is assumed between RFFs and the rest of the business.

#### (e) Group risk margin

The Group risk margin has been calculated at an aggregate level, including 100% of the risk margin for all entities where the Group has a dominant share. The Group risk margin is not subject to an elimination of intra-group effects.

Where the Group has a significant but non-controlling influence in an entity, the proportional share of risk margins will be reflected in the participations line of the Group balance sheet. The proportional share is defined according to the percentages used in the consolidated accounts.

#### D.2.2.5 Simplified methods (unaudited unless relating to best estimate liabilities)

In order to project the non-hedgeable SCR which underpins the risk margin for both life and non-life business, a hierarchy of projection simplifications is necessary to ensure that the risk margin calculation remains proportionate to the nature, scale and complexity of the business (see section D.2.2.4 for further details).

Simplified methods employed to calculate the best estimate liabilities are detailed below.

#### (a) Life business

For smaller blocks of business that are not included in the main models on materiality grounds, an approximate approach is used to calculate the best estimate liability. Manual adjustments to the results calculated by the main valuation systems are made to produce the required technical provisions, for example where a best estimate is set to the equivalent accounting liability. Such manual adjustments are applied in a proportionate manner.

For options and guarantees that are immaterial, alternative methods such as closed-form approaches or a series of deterministic projections are used to calculate the liability. This is based on the results for similar products where guarantees are modelled stochastically and is a proportionate approach given materiality considerations.

There are no other material simplifications used within the Aviva Group.

#### (b) Non-life business

In some areas of the calculation of the Solvency II best estimate liabilities, simplified methods were chosen from a range, from an average cost per claim method to a simple percentage of claims provisions. The selected method depends on the nature of the business, for example, whether it is long-tailed or short-tailed; or whether it exhibits ENID characteristics.

Where simplified methods are used, these are documented and justified in our internal reserving reports.

#### D.2.2.6 Material changes in assumptions

This section highlights the most material changes to assumptions made in the calculation of technical provisions compared to the previous reporting period.

#### Life business

The impact of mortality for annuitant contracts on long-term business relates primarily to the UK. In 2019, there has been a reduction in best estimate liabilities, net of reinsurance recoverables, of £836 million, due to longevity assumptions and modelling which include:

- Updates to base mortality to reflect recent experience for individual annuities of £84 million;
- Updates to the rate of mortality improvements for individual annuities, including CMI 2018 and a change in smoothing parameter, of £401 million;
- Refinements to modelling of bulk purchase annuities together with a change to base mortality, improvements and a change in smoothing
  parameter, of £232 million;
- Refinements to modelling of enhanced annuities of £60 million; and
- Other movements, including longevity assumptions and modelling for with-profits business, of £59 million.

In line with the UK's previous approach in treating surplus funds for ring fenced funds, and with the agreement of the PRA, technical provisions are calculated on the assumption of an immediate fall in payouts to the level consistent with any permanent enhancement to with-profits policies. The review of permanent enhancements in 2019 has resulted in an increase in best estimate liabilities, net of reinsurnace recoverables, of £728 million.

UK Life have also updated their persistency and morbidity assumptions. France Life have updated their expense assumptions and Italy Life have carried out updates to their modelling.

#### Non-life business

Following the announcement by the Lord Chancellor on 15 July 2019, the discount rate used to calculate claim reserves in the UK was reduced to minus 0.25% (2018: 0.00%). This has increased the technical provisions, net of reinsurance recoverables, by £32 million. See section D.2.2.2 for further details.

#### D.2.3 Value of technical provisions by line of business

The following table sets out group technical provisions, split by Solvency II lines of business, as detailed in Annex I to the Level 2 Delegated Acts. The best estimate liabilities and the risk margins are provided separately except in the case where technical provisions have been calculated as a whole. The methodology and assumptions used in the calculation of technical provisions is covered in section D.2.2. The technical provisions are gross of reinsurance and after the impact of any transitional measures.

	Line of business 31 December 2019	Technical provisions £m	Best estimate liability* £m	Risk margin £m (unaudited)
1	Medical expense insurance	248	242	6
2	Income protection insurance	289	282	7
3	Workers' compensation	_	_	_
4	Motor vehicle liability	5,544	5,377	167
5	Other motor insurance	410	399	11
6	Marine, aviation and transport	82	81	1
7	Fire and property damage	1,584	1,537	47
8	General liability insurance	3,569	3,423	146
9	Credit and suretyship	46	43	3
10	Legal expenses insurance	22	21	1
11	Assistance	33	32	1
12	Miscellaneous financial loss	49	47	2
А	Total non-life insurance obligations	11,876	11,484	392
В	Total proportional non-life reinsurance	228	23	205
С	Total non-proportional non-life reinsurance	92	92	_
29	Health insurance	941	708	233
30	Ins with-profits participation	114,684	113,634	1,050
31	Index-linked and unit-linked	169,697	169,026	671
32	Other life insurance	62,606	62,137	469
33	PPOs health	5	5	_
34	PPOs non-health	890	841	49
D	Total life insurance obligations	348,823	346,351	2,472
E	Total life reinsurance obligations	430	430	_
	Total Group technical provisions	361,449	358,380	3,069

<sup>\*</sup> The reduction in best estimate liabilities relating to the transitional measures on technical provisions as set out in D.2.2.1(c) is unaudited.

#### D.2.4 Comparison of Solvency II technical provisions to IFRS technical provisions

Solvency II technical provisions comprise two components - the best estimate liability and the risk margin (both net of transitional measures for life lines of business). By contrast, the IFRS provisions are a single calculation of liabilities, with appropriate margins for risk included within the assumptions and methodology. There is also a different approach to discounting.

There are specific differences in the valuation methods used for example relating to the risk margin, contract boundaries, unit-linked contracts and the treatment of unallocated surplus for participating contracts.

For some business units, particularly France Life, the IFRS provisions are valued on a passive basis (i.e. assumptions may be locked in at inception) whereas the Solvency II best estimate liability is valued on a market consistent basis with (at least) an annual review of non-economic assumptions.

The material differences between the main assumptions used relate to the discount rates, mortality rates, lapse rates and expense assumptions.

The following table summarises Group technical provisions (gross of reinsurance) on an IFRS and Solvency II basis. The technical provisions for non-life business make up a relatively small proportion of the Group technical provisions, hence they are not split by line of business in this table. The IFRS technical provisions exclude the unallocated divisible surplus liability for participating contracts and the Solvency II technical provisions are after the impact of any transitional measures.

Line of business reference	Line of business 31 December 2019	IFRS technical provisions <sup>2</sup> £m (A)	SII technical provisions £m (B) = (C) + (D)	Best estimate liability <sup>1</sup> £m (C)	Risk margin £m (D) (unaudited)	Difference in technical provisions <sup>3</sup> £m E= (B) - (A)
	Total non-life obligations	16,561	12,196	11,599	597	(4,365)
29	Health insurance	1,817	941	708	233	(876)
30	Ins with-profit participation	113,886	114,684	113,634	1,050	798
31	Index-linked and unit-linked	177,847	169,697	169,026	671	(8,150)
32	Other life insurance	66,879	62,606	62,137	469	(4,273)
33	PPOs health	6	5	5	_	(1)
34	PPOs non health	822	890	841	49	68
	Total life insurance obligations	361,257	348,823	346,351	2,472	(12,434)
	Total life reinsurance obligations	642	430	430	-	(212)
	Total Group technical provisions	378,460	361,449	358,380	3,069	(17,011)

## quoted in section D.1.0 f £371,465 million exclude amounts held for sale and include claims provisions on life lines of business. The difference between IFRS technical provisions and SII technical provisions of (£17,011) million includes the £(3,597) million consolidation scope reclassifications difference shown in section D.1.

#### D.2.4.1 Life lines of business

The Solvency II technical provisions for life lines of business are approximately £12.6 billion lower than IFRS technical provisions. This can largely be explained by differences in assumptions and reserving methodology. In particular, removal of IFRS margins and difference in rates used in discounting of cash flows, are partially offset by contract boundary restrictions and the risk margin under Solvency II. These key differences are explained in more detail below.

#### (a) IFRS margins on non-economic assumptions

Best estimate assumptions relating to non-economic variables, such as mortality, are materially aligned between IFRS and Solvency II bases of valuation. However, in the UK under IFRS explicit margins for prudence are added to various best estimate assumptions for non-profit contracts including mortality rates, lapse rates and expense assumptions. Under Solvency II, these margins are not included. This results in Solvency II best estimate liabilities being lower than IFRS technical provisions and affects all non-participating life lines of business. IFRS assumptions for the Group's non-UK life businesses are generally based on local regulations or best estimates and locked in at the outset. The Solvency II best estimate liabilities may therefore be higher or lower than IFRS technical provisions for these businesses; this affects all life lines of business and the direction of difference may vary by line of business. For UK with-profits business no margins are added to the best estimate assumptions under IFRS.

#### (b) Treatment of participating business

The key difference between Solvency II and IFRS technical provisions for UK participating business is that the IFRS technical provisions include certain future liabilities associated with assets not yet distributed as bonuses. Under Solvency II, the technical provisions exclude payments representing surplus funds (as defined in UK national law) and so only future benefits arising from enhancements that are fully consolidated into asset shares are included. In addition regulation has been introduced in France in 2019 that allows French insurers to exclude part of the Provision pour Participation aux Excédents (PPE) from technical provisions (see section E.1.4). These both result in Solvency II best estimate liabilities being lower than IFRS technical provisions.

This is partially offset by the treatment of assets in excess of liabilities. Under IFRS, the assets in excess of liabilities are held as a separate liability called Unallocated Divisible Surplus (UDS) in addition to technical provisions. Since UDS is not classified as part of IFRS technical provisions, it is not included in the table above. Under Solvency II, a proportion of the UDS is implicitly included within best estimate liabilities, particularly in continental Europe where unrealised gains and losses on participating business are considered part of the policyholder share of assets. For UK with-profits business no margins are added to the best estimate assumptions under IFRS. This results in Solvency II best estimate liabilities being higher than IFRS technical provisions.

These differences impact line of business (LOB) 30 (insurance with-profits participation).

The reduction in best estimate liabilities relating to the transitional measures on technical provisions as set out in D.2.2.1(c) is unaudited.

The IFRS technical provisions of £378,460 million include an amount classified as held for sale of £9,011 million and exclude outstanding claims provisions on life lines of business of £2,016 million. The IFRS technical provisions

#### (c) Treatment of unit-linked business

Under IFRS, the technical provisions for unit-linked business are based on current unit value plus an allowance for non-unit liabilities, but only where this would increase technical provisions. Under Solvency II, the reserves are lower than the unit value reflecting the profits expected to emerge in future in respect of premiums already paid and in some cases in respect of premiums expected to be paid in the future where there is no contract boundary restriction (e.g. future management charges in excess of incurred expenses expected to be earned from existing business). Solvency II best estimate liabilities are subject to contract boundaries for certain product types, such as unit-linked savings contracts with no insurance risk or material financial guarantee. This means that future premiums are ignored for regular premium contracts where there is no obligation for the policyholder to pay future premiums.

Overall, this results in Solvency II best estimate liabilities being lower than IFRS technical provisions.

This impacts LOB 31 (index-linked and unit-linked).

#### (d) Discount rates

Discount rates in Solvency II vary from those used in IFRS and all LOBs are affected by these differences.

Solvency II best estimate liabilities are valued as set out in section D.2.2.3.

For non-participating life insurance contracts in most markets including the UK, IFRS liabilities are valued using a valuation interest rate which reflects the yields available on the underlying assets, with an allowance for credit risk based on internal analysis and an additional margin for adverse deviation. No distinction is made for reinsured business in the IFRS valuation interest rate. In countries where there is a passive IFRS valuation basis, such as in continental Europe, notably France, the valuation interest rate used for IFRS (both participating and non-participating) is typically locked-in at outset. For UK participating business, a risk-free rate curve with no allowance for credit risk is used in IFRS.

#### (e) Risk margin (net of transitional measures) (unaudited)

In addition to the best estimate liabilities, Solvency II technical provisions include a risk margin to cover the cost of capital held each year in respect of non-hedgeable risks. This is in contrast to the additional margins held under IFRS to cover risk and uncertainty. The risk margin is provided separately for each material line of business in section D.2.3 above and applies to both life and non-life business. This results in Solvency II technical provisions being higher than IFRS technical provisions.

#### D.2.4.2 Non-life lines of business

The Solvency II technical provisions for non-life business are approximately £4.4 billion lower than the IFRS technical provisions. This can largely be explained by differences in assumptions and reserving methodology, in particular, the difference in approach to reserving for future claims. Other less material differences include the removal of IFRS margins and differences in the discounting of cash flows. These are partially offset by contract boundary restrictions and risk margin which result in an increase in Solvency II technical provisions compared to IFRS. These key differences are explained in more detail below.

#### (a) Methodology for Reserving for future claims

IFRS and Solvency II technical provisions include reserves for future claims expected to be incurred on a contract. Under IFRS this is achieved by holding the premiums attributable to the remaining duration of the contract as reserves and an insurance receivable asset is also held to offset these reserves. Under Solvency II, the best estimate liabilities are determined using the actual future cash flows expected under that contract. This results in Solvency II best estimate liabilities being typically lower than IFRS technical provisions and affects all non-life lines of business.

Some of this reduction is also driven by the reclassification of insurance receivables 'not past due' as referred to in section D.1.5. Under IFRS, these receivables are classified as an asset. Under Solvency II these receivables are treated as future cash flows in the technical provision calculations and this affects all non-life lines of business. These differences result in both insurance receivables and technical provisions being lower by £2.9 billion on the Solvency II balance sheet.

#### (b) IFRS margins

IFRS technical provisions contain margins for prudence on claims and expense assumptions which are not included in Solvency II best estimate liabilities. This results in Solvency II best estimate liabilities being lower than IFRS technical provisions and affects all non-life lines of business.

#### (c) Discounting

For non-life insurance, only certain long-tailed claims reserves are discounted within the IFRS technical provisions and where discounting is applied, a different rate to that prescribed by EIOPA in Solvency II is adopted. The claims reserves that are discounted predominantly relate to latent claims on the longer-tailed LOB including LOB 8 (general liability insurance). In contrast, all non-life insurance cash flows are discounted under Solvency II. This results in Solvency II best estimate liabilities being lower than IFRS technical provisions and affects all non-life lines of business that do not include material long-tailed claims (which are discounted under IFRS).

#### (d) Contract boundaries

The cash flows relating to pre-inception business are included in Solvency II best estimate liabilities. Pre-inception business refers to all liabilities arising from policies that the business units are contractually obliged to write at the valuation date but that have not yet incepted. This affects all non-life lines of business with the exception of annuities stemming from non-life insurance contracts. IFRS is not subject to the same requirement. This results in Solvency II best estimate liabilities being higher than IFRS technical provisions.

#### (e) Risk margin (unaudited)

As explained above for life business, Solvency II technical provisions include a risk margin (net of transitional measures) which results in Solvency II technical provisions being higher than IFRS technical provisions. This affects all material non-life lines of business.

#### D.2.5 Level of uncertainty in value (unaudited unless relating to the best estimate liabilities)

Section D.2.2 sets out details of the methodology and assumptions used by the Group to determine the technical provisions for both life and non-life business. These techniques are designed to allow for the appropriate cost of policy-related liabilities, 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 claims inflation may differ from that expected, and hence there is uncertainty in respect of these liabilities. Specific areas of uncertainty are described below. Given the mix of business written by the Group the most material areas of uncertainty in technical provisions will be driven by the life business (non-life technical provisions comprise 3.4% of the total Group technical provisions).

### D.2.5.1 Life insurance technical provisions (a) General

The best estimate liabilities correspond to the probability-weighted average of future cash flows, taking account of the time value of money using the relevant risk-free interest rate term structure. They are an estimate of how markets and the business might behave in the future given policyholder data, cash flow models and a set of assumptions.

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 list below sets out the estimates and assumptions that are considered particularly susceptible to valuation uncertainty:

- Fluctuation in the amount and/or timing of claims events, e.g. when estimating the length of time for which an annuity will be paid. This requires a projection of annuitant mortality rates in excess of 20 years into the future which cannot be done with any certainty;
- Changes in the value of an index/market values used to determine claims amounts, e.g. estimating future market values of the assets backing the with-profits best estimate liabilities in the UK; and
- Uncertainty in policyholder behaviour, e.g. for estimating lapse rates for different policy types and for different durations of a policy. Policyholder behaviour may change as a result of changes in the regulatory and economic environment.

The best estimate liability assumptions are governed by a rigorous process, underpinned by actuarial judgement and peer review. The scope of assumption review papers includes documenting the degree of uncertainty inherent in the assumptions being reviewed.

Data governance and model governance standards are in place, which help to ensure that the cash flow models used to calculate technical provisions, and the data which is used within that calculation, are fit for purpose and are managed under appropriate change control processes.

The sensitivity of the Group's Solvency II cover ratio (on a regulatory view) to key assumptions used in the calculation of technical provisions is disclosed in section C.7.1 (unaudited). It should be noted that these impacts include the mitigating effects of the change in the value of financial assets and reinsurance recoverables as well as the impact on tax and the solvency capital requirement.

#### (b) 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. 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.

## D.2.5.2 Non-life insurance technical provisions (a) General

The actual cost of settling insurance obligations may differ from the best estimate liabilities, for example because experience may be worse than assumed or future claims inflation may differ from that expected. There are a number of potential developments in the external environment that would have a material impact on the value of the technical provisions due to the inherent uncertainty in the underlying best estimate liabilities.

Best estimate liabilities are based on estimates and therefore can vary and develop, sometimes significantly, against current best estimates for a number of reasons including exposure to the following:

- · Latent claims;
- Catastrophes;
- New types of latent claims;
- Emerging trends and legislative changes not allowed for in the current best estimate; and
- Uncertain economic trends (excessive inflation, interest rate change etc.).

The best estimate liability assumptions are governed by a rigorous process, underpinned by actuarial judgement and peer review.

Data governance and model governance standards are in place, which help to ensure that the cash flow models used to calculate technical provisions, and the data which is used within that calculation, are fit for purpose and are managed under appropriate change control processes.

The main additional risks and uncertainties in the Solvency II technical provisions (over and above those inherent in the IFRS technical provisions which are set out as part of note 44 of the Annual report and accounts) include the following items:

- Assumptions are made about the future reinsurance contracts which will be purchased, including the expected price and expected terms
  and conditions of those arrangements. There is consequently a risk that this reinsurance is not actually bought, or has a materially different
  price than that expected; and
- The premium provision represents the best estimate of future claims and expenses relating to unexpired risks. This is inherently more uncertain than the determination of the IFRS unearned premium provision.

#### (b) Asbestos, pollution and social environmental hazards

In the course of conducting insurance business, the Group receives general insurance liability claims, and becomes 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. Given the significant delays that are experienced in the notification of these claims, the potential number of incidents which 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, management consider that any additional costs arising are not likely to have a material impact on the technical provisions of the Group. Technical provisions for the relevant line of business (general liability insurance) currently comprise 1.0% of Group technical provisions.

#### (c) Ogden discount rate

Refer to section D.2.2.2 for information in respect of the Ogden discount rate.

#### (d) Annuities stemming from non-life business

PPOs represent a small part of best estimate liabilities. They also represent one of the most uncertain elements of technical provisions due to the long-tailed nature of liabilities and the sensitivity to changes in economic-related assumptions. Additional uncertainty arises due to potential differences in the life expectancy of claimants compared to that expected, as well as the potential uncertainty in the propensity for large injury claims to settle as PPOs as opposed to lump sum awards. The technical provisions in respect of PPOs currently comprise 0.2% of Group technical provisions.

#### D.2.5.3 Regulatory compliance

The Group's insurance (both life and non-life) 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.

#### **D.3 Other liabilities**

A description of material valuation differences between Solvency II and IFRS balance sheets related to other liability class are provided below.

#### D.3.1 Deferred tax assets and liabilities

#### Solvency II valuation basis

Deferred tax for Solvency II valuation purposes is determined in accordance with IAS 12 principles on temporary differences arising between the economic value of assets or liabilities in the Solvency II balance sheet and their tax base.

Deferred tax assets and liabilities are recognised separately on the Solvency II balance sheet to the extent that a deferred tax asset cannot be offset against corresponding deferred tax liabilities.

The deferred tax balances in the Solvency II balance sheet differ from those already recognised in the IFRS balance sheet as a result of the differences between the IFRS and Solvency II balance sheet valuation and consequential impact on recognition of deferred tax assets. The largest impact arises from the revaluation of technical provisions. The net deferred tax liability of £3,063 million arises mainly on unrealised gains on investments.

Deferred tax assets are recognised to the extent that it is probable that future taxable profits will be available against which temporary differences can be utilised. Deferred tax assets are recognised to the extent that they are to be offset against deferred tax liabilities or can be supported by future taxable profits.

#### Unused tax losses and credits

The Group has unrecognised gross tax losses (excluding capital losses) of £1,314 million and other unrecognised temporary differences of £1,651 million. Included in these are trading losses of £38 million which will expire within the next 20 years. The remaining losses have no expiry date.

In addition, the Group has unrecognised capital losses of £612 million. These losses also have no expiry date.

#### D.3.2 Financial liabilities other than debts owed to credit institutions

Financial liabilities other than debts owed to credit institutions ('financial liabilities') include securitised mortgage loan notes, obligations for repayment of cash collateral received, internal loans and other financial liabilities.

Under International Accounting Standard (IAS) 39, financial liabilities are either carried at fair value under the fair value option (£8,576 million) or at amortised cost (£1,628 million), financial liabilities recognised under IFRS at fair value include loan notes issued in connection with certain securitised mortgage loans, for which 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. Refer to section D.4 for more information on valuation.

Under Solvency II, financial liabilities are valued at fair value. Financial liabilities which are expected to be paid within one year have been valued on the Solvency II balance sheet at the amount expected to be paid, deemed to approximate fair value. Non-current financial liabilities are measured at fair value, adjusted to eliminate movement in fair value due to changes in own credit standing.

In determining the most appropriate valuation approach to eliminate the effects of changes in own credit standing we considered the characteristics of the market risks of the financial liability. Own credit risk is a component of market risk. Market risk is reflected by the market spread of the instrument, being the current yield less the risk-free rate of return (or benchmark rate if the financial liability pays a fixed return above a benchmark rate i.e. LIBOR).

- For certain financial liabilities, such as unsecured fixed term borrowings (e.g. bank loans), the own credit standing of the issuer (i.e. risk of default by the issuer) is the most significant market risk factor, and other market risk factors can be considered insignificant. On initial recognition, the credit spread reflects the own credit standing of the issuer. In subsequent periods, the expected cash flows have been reassessed at each reporting date. The expected cash flows have not been adjusted for the risk of credit default and therefore the credit spread on initial recognition continues to be used.
- For other financial liabilities, such as securitised mortgage loans, own credit risk will be just one market risk amongst many other significant risks. If the credit worthiness of collateral or security (for example cash) is superior to that of the issuer, then the market spread attributable to the own credit risk of the issuer is likely to be minimal. Any change in the credit spread of a particular financial liability will therefore reflect changes in the credit worthiness of the issuer as well as the general price for credit. For example, a credit spread for an instrument can increase even though the credit worthiness of the issuer, measured by its external credit rating, might be considered to remain unchanged. However, because it is not possible to objectively measure the general price of credit separate from own credit risk, no adjustments have been made for what could be considered the general price of credit, other than changes in the risk-free interest rate. A valuation difference of £86 million is recognised to bring financial liabilities carried at amortised cost under IFRS to fair value under Solvency II.

#### D.3.3 Payables (trade, not insurance)

Under Solvency II, payables are measured at fair value using discounted cash flow models adjusted to eliminate movement in fair value due to changes in the own credit standing of the entity. Under IFRS, payables are initially recognised at cost, being fair value. Subsequent to initial measurement they are measured at amortised cost. Given the nature of these liabilities which is short duration, the amortised cost best represents fair value in all material aspects.

#### D.3.4 Subordinated liabilities

Under IFRS, subordinated debt is valued either on an amortised cost basis or at nominal value. Under Solvency II, subordinated debt is valued on a fair value basis, with changes in own credit standing removed for subsequent measurement. A discounted cash flow model using the risk-free rate plus initial credit spread relevant to each instrument has been used to assess fair value. Changes in foreign exchange rates and the movement in risk-free rates from the point of issuance to the reporting date are the only drivers of changes in fair value. No changes in the issuer's credit standings are applied and, for the purpose of the valuation, it is assumed that the option to redeem at the first call date will be exercised.

The difference of £716 million arising is due to the revaluation of subordinated liabilities from amortised cost under IFRS to fair value under Solvency II.

#### **D.3.5 Other liabilities**

The majority of the difference of £9,508 million between the IFRS and the Solvency II values of other liabilities relates to the unallocated divisible surplus (UDS). Under IFRS, the UDS represents the excess of the aggregate carrying value of assets over the carrying value of the policyholder liabilities for participating business, and where it is negative (that is an asset) it is subject to recoverability testing. Under Solvency II, a proportion of the UDS is implicitly included within best estimate liabilities, notably in continental Europe where certain expected unrealised gains and losses are attributable to policyholders.

#### D.3.6 Pension benefit obligations

The Group operates a number of defined benefits and defined contribution pension schemes, the most significant being in the UK, Ireland and Canada. Further information about the Group's pension obligations, including key assumptions and judgments used, is included in note 52 of the 2019 Annual report and accounts.

Under Solvency II, the pension benefit obligation is calculated using IFRS methodology.

#### D.3.7 Changes made to recognition and valuation bases and estimations during the reporting period

With the exception of changes referred to in section D.3.3, no other changes were made during the reporting period to the bases and estimation approaches used to recognise and value other liabilities.

#### D.4 Alternative methods for valuation

The majority of the Group's assets and liabilities measured at fair value are based on quoted market information or observable active market data. Where the quoted market information or observable market data is not available, an alternative method for valuation is used.

Although, the Solvency II valuation hierarchy differs from IFRS, the methodology for valuing assets and liabilities measured at fair value remains consistent. The assets valued using quoted prices for identical or similar assets from inactive markets (within the fair value hierarchy of IFRS) fall under alternative methods for valuation under Solvency II.

#### Justification for use of alternative valuation method approach

In accordance with Aviva's assets valuation business standard, alternative methods for valuation are applied in respect of the valuation of assets and liabilities only where a readily observable, external market valuation is not available, or where the relevant market is deemed to be inactive.

#### Assumptions underlying the valuation approach and key drivers of valuation uncertainty

Alternative methods for valuation include the use of estimates and assumptions that are not market observable but based on a combination of independent third-party evidence and internally developed models, calibrated to market observable data where possible. Valuation uncertainty arises from variation in the expected range of the key inputs feeding into models, judgemental features of model inputs and assumptions used and reliance on third party adherence to accepted valuation standards.

The principal assumptions underlying the valuation approach and key drivers of valuation uncertainty for the categories of assets and liabilities valued using alternative methods of valuation are described below:

#### Investment property and property for own use

#### Directly held investment property, property funds and freehold property for own use (£12,305 million (2018: £12,759 million))

- Valued in the UK at least annually (for investment property) and at least every three years (for freehold property for own use) 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.
- The extent of uncertainty systemic within the valuation of investment properties has been assessed based on ranges of expected rental yields provided by several independent surveyors by property type. Back-testing analysis is also performed to understand the extent of valuation uncertainty for this asset class.

#### Leasehold property for own use (£572 million (2018: £nil million)) and lease liabilities (£572 million (2018: £nil))

• Leasehold property assets for own use are held at fair value which is deemed to be equal to the related lease liability. The lease liability is equal to the minimum lease payments, consisting of future expected cashflows discounted using the interest rate implicit in the lease. The valuation uncertainty of property held for own use has been assessed by reference to a study of sales prices achieved in commercial real estate transactions against their previous valuations. This assessment indicates that the uncertainty relating to the valuation of property (other than own use), net of lease liabilities is immaterial.

#### Loans and mortgages

#### Commercial mortgage loans (£12,981 million (2018: £11,498 million))

• Commercial mortgages primarily held by our UK Life business are valued using a portfolio credit risk model (PCRM). This model calculates a credit risk adjusted value (CRAV) 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. Furthermore, assumptions regarding property growth and rental income forecasts are based on commercial real estate market views which take into account market volatility as a result of the possible adverse impact of the decision for the UK to leave the European Union. The commercial mortgage loans are sensitive to future property value (via yields), liquidity premium and future property and rental growth. Management assesses the valuation uncertainty by evaluating the valuation range by flexing inputs/assumptions within a reasonably possible range of alternatives and back-testing analysis.

#### Infrastructure and private finance initiative loans (£4,067 million (2018: £3,381 million))

- Private finance initiative and private infrastructure loans are valued using a discounted cash flow model whereby spreads for credit and
  illiquidity are added to a risk-free discount rate. Credit spreads are updated quarterly using an internally developed methodology which
  depends on the credit rating and duration of each loan, credit spreads on publicly traded bonds and estimated recovery rate in event of
  default.
- Valuation uncertainty arises from variation in the expected range of the key inputs feeding into the credit risk calculation and the liquidity premium.

#### Equity release and securitised mortgage loans (£10,990 million (2018: £9,753 million))

- Equity release mortgage loans held by the 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
- 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 of 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 an internal model derived from publicly available Land Registry data and market observable house price indices.

- NNEG is calculated using base property growth rates reduced for the cost of potential dilapidations, using stochastic models. In addition, a cost of capital charge is applied to reflect the variability in these cash flows. The base property growth rate assumption is RPI +0.75% which equates to a long-term growth rate of 4.0% pa (2018: 4.3% pa). After applying the cost of capital charge, dilapidations and the stochastic distribution, the effective long-term growth rate equates to 0.5% pa (2018: 0.6% pa).
- Mortgage loan assumptions for future property prices also include an allowance for the possible adverse impact of the decision for the UK to leave the European Union.
- Management assesses the valuation uncertainty by evaluating the valuation range by flexing inputs/assumptions within a reasonably possible range of alternatives.

#### Non-recourse loans (£370 million (2018: £374 million))

- Valued using internally developed discounted cash flow models incorporating a significant number of modelling assumptions and unobservable market data including a probability of default and liquidity premium.
- Valuation uncertainty has been assessed by flexing inputs/assumptions within a reasonably possible range of alternatives.

The Group continues to keep under review the allowance in our assumptions for future property prices and rental income in relation to its commercial and equity release mortgages, and for the possible adverse impact including but not limited to the ultimate arrangements regarding the UK's exit from the European Union. At 31 December 2019 this allowance has been determined in line with previous periods and is estimated at £0.4 billion (2018: £0.4 billion). As more clarity is provided on the terms of the UK's exit from the European Union, the Group will look to establish core property assumptions without an explicit allowance for Brexit uncertainty.

#### **Debt securities**

#### Structured bond-type and non-standard debt products that have no active market (£6,405 million (2018: £6,580 million))

- Structured bond-type and non-standard debt products (predominantly held by the business in France) and bonds (predominantly held by the UK business) that have no active market are valued using either using counterparty or broker quotes and validated against internal or third party models. Valuation uncertainty arises because either (i) the third party models included a significant unobservable liquidity adjustment, or (ii) there are differences between the valuation provided by the counterparty and broker quotes and the validation model beyond internal valuation tolerance.
- The main drivers of valuation uncertainty are credit risk and liquidity assumptions. Management assesses the valuation uncertainty by operating independent price verification controls as described below.

#### Privately placed notes held by our UK Life business (£1,671 million (2018: £1,586 million))

- 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. These spreads have been deemed to be unobservable.
- Management assesses the valuation uncertainty by evaluating the valuation range by flexing inputs/assumptions within a reasonably
  possible range of alternatives.

#### Debt securities held by the French, UK and Asia businesses which are not traded in an active market (£9,924 million (2018: £9,771 million))

- Debt securities largely held by the French, UK and Asia business are valued using third party or counterparty valuations. These prices are considered to be unobservable due to infrequent market transactions.
- The main drivers of valuation uncertainty are credit risk and liquidity assumptions. Management assesses the valuation uncertainty by operating independent price verification controls as described below.

#### **Equity securities**

#### Equity securities which primarily comprise private equity holdings held in the UK (£760 million (2018: £323 million))

- 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.
- The main drivers of valuation uncertainty are modelling risk and earnings/dividends assumptions. Management conducts back-testing analysis to understand the extent of valuation uncertainty and how reliable the valuations are.

#### Participations and assets held for index-linked and unit-linked funds (£6,375 million (2018: £4,962 million))

- The following participations and assets held for index-linked and unit-linked funds are valued based on external valuation reports received from fund managers:
  - Private equity investment funds;
  - Other investment funds including property funds;
  - External hedge funds held principally by businesses in the UK and France; and
  - Discretionary managed funds held in Asia.
- Where these valuations are at a date other than the balance sheet date, as in the case of some private equity funds, we make adjustments for items such as subsequent draw-downs and distributions and the fund manager's carried interest.
- Management conducts back-testing analysis to understand the extent of valuation uncertainty and how reliable the valuations are.

#### Liabilities

## Non-participating investment contracts liabilities included within financial liabilities of operations classified as held for sale (£3,046 million (2018: 3,100 million))

 These relate to unfunded units or other non-unit adjustments which are based on a discounted cash flow analysis using unobservable market data and assumptions.

## Derivative liabilities comprising over the counter derivatives being primarily RPI swaps and index-linked asset swaps (£768 million (2018: £602 million))

- Valued using discounted cash flow models. Cash flows within these models are forecast based on prevailing swap rates at the time.
- Limited valuation uncertainty exists on these instruments. Management monitors and assesses the valuation risks through comparisons to counterparty.

#### Securitised mortgage loan notes (£1,233 million (2018: £1,225 million))

Valued using a similar technique to the related securitised mortgage loan assets presented above.

#### Adequacy of valuation compared to experience

The Group requires business units to operate independent price verification (IPV) controls, including an assessment of adequacy of valuation methods applied, across all assets.

For assets where a secondary source is available (such as over the counter derivatives), this involves comparing the primary valuation to the secondary source, investigating material differences and making valuation adjustments where we believe appropriate.

For illiquid debt securities which are marked to model the IPV process incudes a review of the valuation methodology, periodic assessment of both observable and judgemental model inputs as well as reviewing any secondary trading activity in the asset to understand whether anything can be learnt regarding the appropriateness of the valuation methodology. For commercial mortgage and equity release mortgage loans where there is generally no secondary source available and no secondary trading activity, the valuation methodology is subject to regular review and there is a process of periodic reassessment of all the model inputs.

For other asset classes where there is no secondary source available and there is no secondary trading activity (such as investment property and private equity), the Group relies on the implementation of accepted valuation standards by parties that are independent to the Group. To assess the reasonableness of the valuations back-testing analysis is performed on an annual basis for any assets sold during the year. Results of this back-testing analysis are presented in the business units' Solvency II valuation uncertainty assessment.

#### D.5 Any other material information

#### D.5.1 Valuation differences

There are no material differences in the bases, methods and main assumptions used at Group level for the valuation of assets and liabilities from those used by any of its subsidiaries.

#### D.5.2 Additional information on the COVID-19 global pandemic (unaudited)

Further information on the impact of the COVID-19 global pandemic is contained within section F.6.

## Section E Capital Management

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#### **Section E: Capital management**

The 'Capital Management' section of the report describes the objectives, policies and procedures employed by the Group for managing its own funds. The section also covers information on the structure and quality of own funds, and the calculation of the solvency capital requirement (SCR), including information about Group's internal model.

The Group calculates its Solvency II position on a regulatory basis and on a 'shareholder view' basis. 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, a number of adjustments are typically made to the regulatory Solvency II position. The Group Solvency II capital position, including these adjustments, is summarised in the table below:

	Own funds 2019 £m	2019	Surplus 2019 £m	Own funds 2018 £m	SCR 2018 £m	Surplus 2018 £m
Solvency II regulatory surplus as at 31 December	28,822	(15,713)	13,109	27,593	(15,344)	12,249
Adjustments for:						
Fully ring-fenced with-profit funds	(2,501)	2,501	_	(2,635)	2,635	_
Staff pension schemes in surplus	(1,175)	1,175	_	(1,121)	1,121	_
PPE <sup>1</sup>	(403)	) —	(403)	_	_	_
Notional reset of TMTP	_	_	_	(127)	_	(127)
Pro forma adjustments <sup>2</sup>	(117)	(75)	(192)	(101)	25	(76)
Solvency II shareholder surplus at 31 December	24,626	(12,112)	12,514	23,609	(11,563)	12,046

<sup>1</sup> A change in regulations announced in December 2019 allows French insurers to place a part of the Provision pour Participation aux Excédents ("PPE") into Solvency II own funds. This is included within Group regulatory own funds but is excluded from the shareholder position. See section E.1.4 for more details.

At 31 December 2019, the total regulatory eligible own funds to meet Group SCR was £28,822 million (2018: £27,593 million), of which £20,854 million (2018: £19,339 million) was represented by unrestricted tier 1 capital. The SCR is calculated using a partial internal model and was £15,713 million (unaudited) at 31 December 2019 (2018: £15,344 million (unaudited)).

At 31 December 2019, the shareholder view surplus is £12,514 million (unaudited) (2018: £12,046 million (unaudited)) with a cover ratio of 203% (unaudited) (2018: 204% (unaudited)).

#### E.1 Own funds

#### E.1.1 Management of own funds

Capital is a primary consideration across a wide range of business activities, including product development, pricing, business planning, Mergers and Acquisitions (M&A) 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 consideration for capital management decisions and requirements for management information, capital monitoring, reporting, forecasting, planning and overall governance. The Group uses stress and scenario testing to assess the resilience of capital positions to key risks and exposures, develop recovery plans and inform business decisions and planning processes over a three year planning horizon. The Group seeks to maintain balance sheet resilience and an appropriately low level of sensitivity of the capital surplus to potential economic stresses.

The primary objective of capital management is to maintain an efficient capital structure using a combination of equity shareholders' funds, preference share capital, subordinated debt and borrowings, in a manner consistent with our risk profile and the regulatory and market requirements of our business.

Group capital is represented by Solvency II own funds. The Group manages capital in conjunction with its solvency capital requirements (SCR), and seeks to, on a consistent basis:

- 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;
- Retain financial flexibility by maintaining strong liquidity, access to a range of capital markets and significant unutilised committed credit lines;
- Manage an appropriate level of debt leverage to ensure an efficient capital structure;
- Allocate capital rigorously to support value adding growth and repatriate excess capital where appropriate; and
- Operate a sustainable dividend policy with reference to factors including growth in cash flow and capital generation.

Capital management for the Group is the responsibility of the Chief Financial Officer (CFO) and the Chief Capital Officer (CCO). The Asset and Liability Committee supports the CFO and CCO in the discharge of their responsibility within the risk appetite set by the Board, including capital allocation, capital management decisions and management of financial (liquidity, market, credit, counterparty and insurance) risks.

There have been no material changes in the objectives, policies and processes employed for managing own funds over the reporting period.

<sup>2</sup> The 31 December 2019 Solvency II position includes three pro forma adjustments that relate to the disposal of FPI (£nil impact on surplus), the disposal of Hong Kong (£nil impact on surplus) and the potential impact of an expected change to Solvency II regulations on the treatment of equity release mortgages (£0.2 billion decrease in surplus as a result of an increase in SCR). The 31 December 2018 Solvency II position includes the pro forma impact of the disposals of FPI (£0.1 billion increase in surplus) and the potential impact of an expected change to Solvency II regulations on the treatment of equity release mortgages (£0.2 billion reduction in surplus as a result of an increase in SCR).

#### E.1.2 Own funds by tier

The table below sets out a summary of Aviva Group's own funds by tier for year end 2019:

At 31 December 2019, total available own funds to meet the Group SCR equals total eligible own funds, with no tiering limit restrictions.

	_		_		
As at 31 December 2019	Total £m	Tier 1 unrestricted £m	Tier 1 restricted £m	Tier 2 £m	Tier 3 £m
Ordinary share capital (gross of own shares) and share premium	2,219	2,219	_	_	_
Surplus funds	5,982	5,982	_	_	_
Preference shares <sup>1</sup>	950	_	950	_	_
Reconciliation reserve (Group)	13,043	13,043	_	_	_
Subordinated liabilities	6,942	_	889	5,794	259
An amount equal to the value of net deferred tax assets <sup>2</sup>	76	_	_	_	76
Deductions:					
Non-available minority interests at Group level (unaudited)	(390)	(390)	_	_	_
Deductions for own funds from other financial sectors (OFS)(unaudited)	(1,299)	(1,299)	_	_	_
Total basic own funds after deductions	27,523	19,555	1,839	5,794	335
Total eligible own funds to meet the consolidated Group SCR (excluding OFS) <sup>3</sup>	27,523	19,555	1,839	5,794	335
Total own funds of other financial sectors (unaudited)	1,299	1,299	_	_	_
Total eligible own funds to meet the consolidated Group SCR (including OFS)	28,822	20,854	1,839	5,794	335
Total eligible own funds to meet the minimum consolidated Group SCR <sup>4</sup>	22,856	19,555	1,839	1,462	_

funds but it sexcluded from the shareholder position. See section E.1.4 for more details.

Tier 2 own funds are restricted to £1,462 million which is 20% of the minimum consolidated group SCR (£7,312 million \* 20% = £1,462 million). Tier 3 own funds of £335 million are not eligible to meet the minimum consolidated Group SCR.

As at 31 December 2018	Total £m	Tier 1 unrestricted £m	Tier 1 restricted £m	Tier 2 £m	Tier 3 £m
Ordinary share capital (gross of own shares) and share premium	2,189	2,189	_	_	_
Surplus funds	6,866	6,866	_	_	_
Preference shares <sup>1</sup>	1,181	_	1,181	_	_
Reconciliation reserve (Group)	10,511	10,511	_	_	_
Subordinated liabilities	6,979	_	915	5,811	253
An amount equal to the value of net deferred tax assets <sup>2</sup>	95	_	_	_	95
Deductions:					
Non-available minority interests at Group level (unaudited)	(228)	(228)	_	_	_
Deductions for own funds from other financial sectors (OFS)(unaudited)	(1,032)	(1,032)	_	_	_
Total basic own funds after deductions	26,561	18,306	2,096	5,811	348
Total eligible own funds to meet the consolidated Group SCR (excluding OFS)	26,561	18,306	2,096	5,811	348
Total own funds of other financial sectors (unaudited)	1,032	1,032	_	_	_
Total eligible own funds to meet the consolidated Group SCR (including OFS)	27,593	19,338	2,096	5,811	348
Total eligible own funds to meet the minimum consolidated Group SCR <sup>3</sup>	21,834	18,306	2,096	1,432	_

Includes direct capital instruments and step-up tier 1 insurance capital securities

Further information on own funds by tier is presented in QRT S.23.01.22 'Own funds' within section F.2.

- Tier 1 unrestricted capital
  - Unrestricted tier 1 capital of £19,555 million represents 71% of Aviva's eligible own funds to meet the SCR excluding other financial sectors. This consists of Aviva's ordinary share capital and share premium, surplus funds and reconciliation reserve (see section E.1.5). Tier 1 unrestricted capital includes high quality instruments with principal loss absorbing features such as permanence, subordination, undated, absence of redemption incentives, mandatory costs and encumbrances.
  - Tier 1 unrestricted capital has deductions in respect of minority interests (the minority share of own funds in excess of minority share of diversified SCR) and own funds from other financial sectors (OFS).
- Tier 1 restricted
  - Restricted tier 1 capital of £1,839 million includes Aviva's direct capital instrument (DCI), preference shares and subordinated debt. None of these instruments include principal loss absorbency features and all qualify as restricted tier 1 capital under transitional provisions.
- Tier 2 capital
  - Aviva's tier 2 capital consists of dated subordinated debt amounting to £5,794 million. Of this £4,146 million qualifies under transitional arrangements and £1,648 million directly qualifies as tier 2 capital under Solvency II. The features of tier 2 capital include subordination, a minimum duration of 10 years with no contractual opportunity to redeem within 5 years, absence of redemption incentives and mandatory costs and encumbrances.
- Tier 3 capital
  - Aviva's tier 3 capital of £335 million consists of subordinated debt of £259 million and net deferred tax assets of £76 million after taking into account the ability to offset assets against deferred tax liabilities. The features of Tier 3 capital include subordination and a minimum duration of 5 years.

Includes direct capital instruments. Includes a deduction of  $\pm 4$  million in relation to deferred tax assets in excess of the contribution to Group SCR.

A change in regulations announced in December 2019 allows French insurers to place a part of the Provision pour Participation aux Excédents ("PPE") into Solvency II own funds. This is included within Group regulatory own

Includes a deduction of £4 million in relation to deferred tax assets in excess of the contribution to Group SCR.
Tier 2 own funds are restricted to £1,432 million which is 20% of the minimum consolidated group SCR (£7,160 million \* 20% = £1,432 million). Tier 3 own funds of £348 million are not eligible to meet the minimum consolidated

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#### E.1.3 Details of own funds items

#### E.1.3.1 Issued share capital and share premium as at 31 December 2019

The Company had an aggregate issued and outstanding ordinary share capital of £980 million and share premium of £1,238 million as at 31 December 2019.

#### Movement in the year

During 2019, a total of 18,776,934 ordinary share were allotted and issued by the Company totalling £30 million.

#### E.1.3.2 Preference shares in issue as at 31 December 2019

			Callable at par at option of the		Solvency II value 2019	Solvency II value 2018
Capital instrument, including nominal, coupon and extent of subordination	Issue date	Redemption date	Company from	Solvency II tier	£m	£m
8.750% cumulative irredeemable preference shares £1	20 May 1992	N/A	N/A	Restricted tier 1	100	100
8.375% cumulative irredeemable preference shares £1	18 Nov 1992	N/A	N/A	Restricted tier 1	100	100
8.875% cumulative irredeemable preference shares £1	2 Sep 1992	N/A	N/A	Restricted tier 1	140	140
7.875% cumulative irredeemable preference shares £1	2 Mar 1993	N/A	N/A	Restricted tier 1	110	110
6.875% £210 million STICS <sup>1</sup>	21 Nov 2003	Undated	21 Nov 2019	Restricted tier 1	_	231
5.9021% £500 million direct capital instrument <sup>2</sup>	25 Nov 2004	Undated	27 July 2020	Restricted tier 1	500	500
Total preference shares					950	1,181

- Instrument callable on the coupon payment date falling on successive fifth anniversaries from first call date.
- Instrument callable after each interest payment date thereafter

#### Transitional measures

All of Aviva's preference shares have transitioned as Solvency II tier 1 capital until December 2025 (the end of the transitional period).

#### Movement in the year

On 21 November 2019 the 6.875% £210 million step-up tier one insurance capital securities (STICS) were redeemed in full without refinancing.

#### E.1.3.3 Subordinated liabilities in issue as at 31 December 2019

Under IFRS, subordinated debt is valued either on an amortised cost basis or at nominal value. Under Solvency II, subordinated debt is valued on a fair value basis, with changes in own credit standing removed for subsequent measurement. A discounted cash flow approach has been used to assess fair value and, for the purpose of the valuation, it is assumed that the option to redeem at the first call date will be exercised.

Capital instrument, including nominal, coupon and extent of subordination	Issue date	Redemption date	Callable at par at option of the Company from	Solvency II tier	Solvency II value 2019 £m	Solvency II value 2018 £m
		•				
6.125% £700 million subordinated notes <sup>1</sup>	14 Nov 2001	14 Nov 2036	16 Nov 2026	Tier 2	855	840
6.125% £800 million undated subordinated notes <sup>1</sup>	29 Sep 2003	Undated	29 Sep 2022	Restricted tier 1	889	915
6.875% £600 million subordinated notes <sup>2</sup>	20 May 2008	20 May 2058	20 May 2038	Tier 2	862	818
12.00% £162 million subordinated notes	21 May 2009	21 May 2021	N/A	Tier 2	168	172
8.25% £500 million subordinated notes	21 April 2011	21 April 2022	N/A	Tier 2	534	543
6.625% £450 million subordinated notes <sup>2</sup>	26 May 2011	3 June 2041	3 June 2021	Tier 2	467	476
6.125% €650 million subordinated notes <sup>2</sup>	5 July 2013	5 July 2043	5 July 2023	Tier 2	589	625
3.875% €700 million subordinated notes <sup>2</sup>	3 July 2014	3 July 2044	3 July 2024	Tier 2	631	662
5.125% £400 million subordinated notes <sup>2</sup>	4 June 2015	4 June 2050	4 June 2030	Tier 2	447	430
3.375% €900 million subordinated notes <sup>2</sup>	4 June 2015	4 Dec 2045	4 Dec 2025	Tier 2	799	825
4.500% C\$450 million subordinated notes	9 May 2016	10 May 2021	N/A	Tier 3	259	253
4.375% £400 million subordinated notes <sup>2</sup>	12 Sep 2016	12 Sep 2049	12 Sep 2029	Tier 2	402	385
Total subordinated debt					6,902	6,944
Other subordinated debt <sup>3</sup>					40	35
Total subordinated debt⁴					6,942	6,979

- Instrument callable every five years from first call date.
  Instrument callable after each interest payment date thereafter.
  Other subordinated debt includes £40 million (2018: £35 million) of tier 2 subordinated debt recognised in Italy. Total subordinated debt not included in basic own funds totals £79 million as at 31 December 2019

#### Transitional measures

The transitional measures prescribed under Solvency II allow subordinated debt to count towards a firm's available own funds, subject to tiering limits, for a period of up to ten years after 1 January 2016. Subordinated instruments issued in 2015 and thereafter include the required terms as set out in the Solvency II own funds guidelines, including mandatory deferral of both coupons and redemption following breaches in capital requirements. These instruments therefore qualify directly as own funds under the Solvency II regulations.

The subordinated instruments that do not qualify directly as Solvency II own funds met the Solvency I requirements without reliance on waivers and are therefore eligible for Solvency II transitional treatment.

Aviva subordinated instruments using transitional measures are presented, classified by tier, in the table below.

			Solvency II value 2019	Solvency II value 2018		
Capital instrument	Solvency 1 regime	Transitional treatment	£m	£m	Maturity	Call date
Subordinated debt	Upper tier 2	Transitional restricted tier 1	889	915	Undated	Note 1
Subordinated debt	Lower tier 2	Transitional tier 2	4,146	4,158	Dated	Note 2

<sup>1</sup> All have a first call date that falls within the transitional period

#### Movement in the year

Aviva Vita issued £8.2 million in 2019, other movements in the total value of subordinated liabilities relate to changes in the foreign exchange rates and the risk-free rates used for the Solvency II valuation of subordinated debt.

#### E.1.3.4 Own funds items issued by entities other than insurance and insurance holding companies

The table below presents own funds items issued by entities other than insurance and insurance holding companies around the Group.

Country of issue	Entity	Entity type	Tier	Capital instrument	Nominal value
UK	General Accident plc	Other related company	Restricted tier 1	Preference shares	£250m
UK	Friends Life Holdings Limited	Other related company	Tier 2	Subordinated debt	£162m
UK	Friends Life Holdings Limited	Other related company	Tier 2	Subordinated debt	£500m

The instruments outlined in the table above are those issued by General Accident plc (GA) (£250 million nominal of preference shares) and Friends Life Holdings Ltd (FLH) (£162 million and £500 million nominal of subordinated liabilities). The subordinated debt issued externally in these companies is held in those companies as a result of acquisitions and mergers that have taken place.

Both GA and FLH are 'other related companies', which have no insurance business. The only exposure of GA and FLH to other entities within the Group is through intercompany loans. The liquidity and capital within GA and FLH form part of the overall liquidity and capital held by the Group centre holding companies and, as these entities do not have any operating activities, their subordinated liabilities are structurally further subordinated to claims within the Group's operating entities, including all policyholder claims. The instruments rely on funds flowing up from other Group entities to service interest and redemption payments.

#### E.1.4 Surplus funds

The Group has recognised £5,982 million of surplus funds which meet the criteria for classification as tier 1 own funds. These are primarily UK and Ireland with-profits funds where accumulated profits have not yet been made available for policyholders or beneficiaries (see section D.2.4.1(b) 'Treatment of participating business'). Any restriction by virtue of them being a with-profits fund is presented as an adjustment for restricted items in respect of ring fenced funds.

In December 2019 the French Government issued a decree allowing French insurers to place part of the Provision pour Participation aux Excédents (PPE) into surplus funds in certain conditions. On 27 January 2020 ACPR (the French regulator) issued a technical paper outlining three approaches to determine the value of the PPE to include within surplus funds for 2019. Aviva has adopted a fully economic approach based on the present value of cashflows generated from the initial admissible PPE. The Group has recognised £403 million of surplus funds in respect of PPE.

Surplus funds can only be included in own funds where such funds are explicitly defined in national law. For Aviva this is only the case for the UK and Ireland with-profits funds and France participating funds (through PPE). Consequently, no surplus funds are recognised outside of the UK, Ireland and France.

#### E.1.5 Reconciliation reserve

The table below sets out the constituents of the reconciliation reserve:

As at 31 December 2019	2019 £m	2018 £m
Solvency II excess of assets over liabilities	24,792	24,679
Other basic own funds items	(9,231)	(10,335)
Foreseeable dividends, distributions and charges	(11)	(14)
Own shares held – ordinary share capital	(7)	(11)
Restriction to fungibility and transferability of own funds (unaudited)	(1,197)	(1,708)
Restricted own fund items in respect of ring fenced funds (RFF) and matching adjustment portfolios (MAP)(unaudited)	(1,303)	(2,100)
Reconciliation reserve (Group)	13,043	10,511

The reconciliation reserve equals the total excess of assets over liabilities reduced by the following:

- Other basic own funds includes ordinary share capital; share premium account; preference shares; surplus funds and deferred tax assets;
- Foreseeable dividends, distributions and charges (see section E.6);
- Own shares held by a subsidiary company (see section E.1.9);
- Restrictions to fungibility and transferability of own funds relates to defined benefit staff pension schemes and provision for tax that would arise on payment of dividends from participating entities to the Group (see section E.1.7); and
- The surplus own funds over notional SCR held within ring fenced funds (RFF) and matching adjustment portfolios (MAP) is restricted (see section E.1.8).

<sup>2</sup> There are two instruments, the 6.875% £600 million 2058 subordinated notes and the 6.125% £700m 2036 subordinated notes, with first call dates after the end of the transitional period.

#### E.1.6 Differences between IFRS equity and the excess of assets over liabilities as calculated for Solvency II

The table below lists the material differences between equity as shown in the financial statements and the excess of assets over liabilities as calculated under Solvency II:

As at 31 December	2019 £m	2018 £m
Total Group equity on an IFRS basis	18,685	18,455
Elimination of goodwill and other intangible assets <sup>1</sup>	(8,407)	(7,828)
Elimination of unallocated divisible surplus	9,320	5,793
Differences between Solvency II and IFRS gross technical provisions		
Valuation differences on best estimate liabilities (net of transitional measures) <sup>2</sup>	16,414	20,256
Inclusion of risk margin (net of transitional measures)	(3,000)	(3,256)
Valuation difference on reinsurance recoverable	(3,558)	(4,369)
Net deferred tax <sup>3</sup>	(1,259)	(1,149)
Valuation difference on other insurance payables/receivables	(2,576)	(2,282)
Revaluation of subordinated liabilities	(716)	(649)
Other valuation differences <sup>4</sup>	(111)	(292)
Solvency II net assets (gross of non-controlling interests)	24,792	24,679
Difference between IFRS and Solvency II net assets	6,107	6,224

<sup>1</sup> Includes £1,815 million (2018: £1,812 million) of goodwill and £6,592 million (2018: £6,016 million) of other intangible assets including acquired value of in-force business of £2,479 million (2018: £2,262 million), deferred acquisition costs (net of deferred income) of £3,147 million (2018: £3,413 million) and other intangibles of £966 million (2018: £917 million).

2 The valuation differences on best estimate liabilities reported in the above table of £16,414 million (2018: £20,256 million) is gross of reinsurance recoverables and net of transitional measures on technical provisions.

#### E.1.7 Restriction to fungibility and transferability of own funds (unaudited)

At 31 December 2019 the Group recognised the following restrictions in respect of fungibility and transferability of own funds:

As at 31 December 2019	2019 £m	2018 £m
Defined benefit staff pension schemes	1,143	1,649
Tax arising on the payments of dividends	54	59
Restriction to fungibility and transferability of own funds (unaudited)	1,197	1,708

#### Defined benefit staff pension schemes

Where pension schemes contribute positively to eligible own funds, any excess of these eligible own funds above the marginal contribution to the Group diversified SCR of the pension schemes is restricted to nil. For those schemes where there is a negative contribution to eligible own funds, this negative contribution is fully recognised on the Solvency II balance sheet and so no restriction is required. The major pension schemes are recognised in the Group balance sheet from the consolidation of Aviva Employment Services (AES). AES is an ancillary service company that is a subsidiary of Aviva Group Holdings (AGH), an insurance holding company. Consequently, deductions for non-available own funds have been recognised in respect of entities in addition to those identified as being within the scope of the Solvency II regulations.

At 31 December 2019, there is a positive contribution of £2,363 million to basic own funds arising from those pension schemes which are subject to a fungibility restriction and the marginal contribution of these pension schemes to the SCR is £1,220 million. This would imply a contribution to Solvency II surplus of £1,143 million. Therefore, a fungibility restriction of £1,143 million (i.e. £2,363 million – £1,220 million) is required so the contribution to Solvency II surplus is nil.

#### Tax arising on the payment of dividends

In certain territories where the Group operates, the payment of dividends from Group participations to holding companies gives rise to a withholding tax charge. Where such tax applies, a Group fungibility adjustment is made to represent the required tax provision in own funds. The amount of dividend tax provided for at 31 December 2019 is £54 million.

#### E.1.8 Restricted own funds items in respect of ring fenced funds (RFF) and matching adjustment portfolio (MAP) (unaudited)

As at 31 December 2019, the total of the excess of assets and liabilities within RFFs and MAPs at Group level amounted to £9,122 million, of which £1,303 million is restricted from Group own funds as summarised below:

- All material with-profits funds are treated as RFFs. Where a RFF exists, the own funds in excess of the notional SCR of the RFF are restricted and deducted from Group own funds as an adjustment to the reconciliation reserve. In particular, Aviva's with-profits funds exist in the UK in Aviva Life & Pensions UK (UKLAP);
- In applying Article 80 of the Solvency II Delegated Acts to the Reattributed Inherited Estate External Support Account (RIEESA) of UKLAP, the surplus of own funds over the notional capital requirement, where the capital requirement includes a buffer in addition to the notional SCR, is not restricted. This surplus is known as the available headroom. The objective of this buffer is to ensure the policyholders of the New With-Profits Sub-Fund (NWPSF) of UKLAP are not exposed to unacceptable risk of failing to meet statutory capital requirements. The headroom test is considered an appropriate indication of the levels of assets in the RIEESA which are available to absorb losses elsewhere in the business and are not part of the RFF;
- A restriction of £48 million is made in relation to the value of assets held in the Contingent Capital Account (CCA) as at 31 December 2019. The CCA is a segregated custody account to provide additional security to the Aviva Staff Pension Scheme and as such is deemed non available capital; and
- There are no MAPs within the Group that have any surplus in excess of their notional SCR, and as a result no restriction to own funds has been applied.

Net deferred tax includes the tax effect of all other reconciling items in the table above which are shown gross of tax

Other valuation differences include other fair value adjustments.

• The PRA have agreed to the following revised treatment of future transfers from FP WPSF 40:60 business. The contractual FP 40:60 shareholder transfers at a Group level will be treated as unrestricted own funds in the same fashion as the discretionary 90:10 transfers. The value of FP 40:60 transfers will no longer be deducted from the own funds as part of the ring-fenced fund (RFF) restriction. The FP 40:60 transfers will be recognised as unrestricted own funds under Article 80(1) of the Solvency II Delegated Regulations. This change increased owns funds by £111 million.

The remaining excess of assets and liabilities within RFFs and MAPs at Group level after the above restrictions amounted to £7,819 million. This balance is driven by the inclusion of own funds up to the level of notional SCR for each RFF and MAP plus the allowable RIEESA headroom and shareholder share of future bonuses.

#### E.1.9 Information on own funds

Group own funds are derived from the Solvency II excess of assets over liabilities using the default accounting consolidation-based method (method 1).

Intra-group transactions with entities that are fully consolidated are eliminated on the face of the balance sheet with the primary exceptions relating to the risk margin (see section D.2.2.4(e)), transitional measures on technical provisions (see section D.2.2.1(c)) and matching adjustment (see section D.2.2.3(b)).

In addition, when arriving at Group own funds, intra-group transactions of entities included through either the adjusted equity method or proportional share of own funds according to relevant sectoral values are eliminated in own funds, with all intra-group transactions netted off in the reconciliation reserve.

#### E.2 Solvency Capital Requirement (SCR) and Minimum Capital Requirement (MCR)

#### E.2.1 Group SCR calculation method (unaudited)

Aviva calculates its Group SCR using an accounting consolidation-based method (Method 1). This method considers Group as a single entity and allows for diversification between insurance entities. The SCR for non-insurance entities is added separately to the SCR for the insurance entities to obtain the consolidated Group SCR. The method used to calculate the minimum consolidated Group SCR is outlined in section E.2.3.

#### E.2.2 Solvency Capital Requirement (SCR) (unaudited)

The Group SCR at 31 December 2019 is £15,713 million (2018: £15,344 million). The Group SCR has increased in 2019 primarily as a result of increased longevity risk in the UK as a consequence of lower interest rates and narrowing of credit spreads reducing the impact of discounting. Equity risk has also increased, primarily as a result of increased exposure following strong equity market performance during 2019 and an increase in the size of the standard formula equity stress, offset by further equity hedging. Partially offsetting these movements has been a reduction in interest rate risk, due to the reassessment of the interest rate stress which allows for the current low interest rate environment, and also a reduction in credit risk within our Italian businesses primarily due to narrowing of Italian Government bond spreads.

This section contains breakdowns of the Group SCR by entity and by risk, and an analysis of the main sources of diversification. The final amount of the Group SCR is still subject to supervisory assessment.

#### Group SCR split between internal model and standard formula and by risk

Aviva uses a partial internal model (PIM), which is made up of entities that use an internal model (IM) and entities that use the standard formula (SF). Undertakings in scope of the internal model are detailed in section E.4.2.

A more detailed breakdown of the Group SCR by risk component is shown below, including the split of each component between internal model and standard formula. Each risk component includes the impact of diversification within that component, whilst the diversification line includes diversification between risk components and the diversification between internal model and standard formula entities (known as PIM diversification). The loss-absorbing capacity of technical provisions (LACTP) is embedded within risk components. The "other risks" component mainly comprises partial internal model consolidation adjustments and minor risks that do not fit into other components and the "other adjustments" component includes adjustments to the SCR for expected changes to own funds over the next year.

Group SCR by risk component (£m)	Total £m	IM £m	SF £m
Market risk	13,064	9,694	3,370
Counterparty default risk	606	312	294
Life underwriting risk	7,448	6,631	817
Health underwriting risk	552	-	552
Non-life underwriting risk	1,778	1,180	598
Operational risk	2,641	2,260	381
Other risks	552	512	40
Loss-absorbing capacity of technical provisions	(25)	_	(25)
Loss-absorbing capacity of deferred taxes	(1,804)	(1,146)	(658)
Other adjustments	(566)	(566)	-
Total undiversified components	24,246	18,877	5,369
Diversification	(9,138)		
Solvency capital requirement excluding capital add-on	15,108		
Capital add-ons already set	_		
SCR for non-insurance entities	605		
Solvency capital requirement	15,713		

#### **Diversification benefits**

Aviva performs an analysis of the diversification benefit by risk and by business unit to provide assurance that the level of diversification applied is reasonable given Aviva's structure, mixture of risks and underlying risk calibrations and correlations.

Aviva's reported Group diversification benefit at 31 December 2019 is £9,138 million (2018: £8,659 million), which includes diversification between risk components and PIM diversification, but does not include diversification within each risk component. The diversification ratio at 31 December 2019 is 38% (2018: 37%) of the total undiversified components of £24,246 million (2018: £23,421 million), which already allows for diversification within risk components.

Diversification benefits between risks are primarily driven by the relative size of risks and the correlations between them. For example, two risks diversify more if they are similarly sized and diversify less the more highly correlated they are. Diversification is also influenced by the shape of risk distributions, in that risks where extreme events are more likely tend to diversify better.

The size of the diversification benefits arising between entities within the Group are primarily driven by the risk profiles of those entities. Ring fenced funds and non-insurance entities do not contribute to the diversification benefit, which means that no diversification benefits arise from the UK with-profits funds. Within the internal model entities, the UK Life entities make up a large proportion of the Group and therefore strongly influence the Group's risk profile. The non-life businesses diversify well as they have a different risk profile to the rest of the Group.

The final source of diversification benefits is PIM diversification. Aviva uses a partial internal model to calculate the total Group SCR, which involves modelling internal model entities and standard formula entities separately and then combining them using a correlation matrix.

The PIM diversification benefits arise from the assumed correlations between the internal model block and the standard formula risk modules.

Annex I of the Other Information section, S.25.02.22, outlines the disaggregated SCR as set out in Article 336 of the Solvency II Delegated Acts.

#### E.2.3 Minimum consolidated Group SCR

Since the Minimum Capital Requirement (MCR) is not defined at the Group level under Solvency II, the minimum consolidated Group SCR is calculated as the sum of the MCR for fully-owned insurance undertakings and the proportional share of MCRs for partially owned insurance undertakings within the Group.

The MCR for each EEA insurance undertaking is calculated using a linear formula that applies prescribed factors to technical provisions, written premiums, capital at risk, deferred tax and administrative expenses (all net of reinsurance), subject to a cap (45% of the solo SCR) and a floor (25% of the solo SCR). The MCRs for non-EEA insurance undertakings are their local minimum solvency requirements.

The minimum consolidated Group SCR at 31 December 2019 is £7,312 million (2018: £7,160 million).

#### E.2.4 Standard formula simplifications (unaudited)

Where the SCR is calculated using the standard formula, the Solvency II regulations specify simplified calculations that may be used across all of the standard formula risk modules except operational risk. Aviva has not used any of these simplified calculations to calculate the year end 2019 SCR.

#### E.2.5 Standard formula Undertaking Specific Parameters (USPs) (unaudited)

Where the SCR is calculated using the standard formula, Solvency II regulations specify certain USPs that may be used in place of the standard parameters, subject to regulatory approval. These are available for life and health revision risks, and non-life (including some health) premium and reserve risks. Aviva has not used any USPs to calculate the year-end 2019 SCR.

#### E.2.6 Transitional measures, disclosure of capital add-ons and USPs (unaudited)

Regulators have the power to impose capital add-ons to the SCR or to require the use of certain USPs in the standard formula, where there are significant deficiencies in a firm's internal model or partial internal model, or where a standard formula firm's risk profile deviates significantly from the assumptions underlying the standard formula. Aviva is not required to hold any capital add-ons or use any specified USPs.

#### E.3 Use of the duration-based equity risk sub-module in the calculation of the SCR (unaudited)

Insurance firms that have particular types of retirement provision business managed on a ring-fenced basis, for which the SCR is calculated using the standard formula, are entitled to calculate the equity risk capital requirement using a specified duration-based approach. Aviva does not use the duration-based equity risk sub-module in the calculation of the SCR.

#### E.4 Differences between the standard formula and any internal model used (unaudited)

#### E.4.1 Use of the internal model in Aviva's business

The internal model is used in day-to-day risk management and business decisions across Aviva, informing key business processes and activities, both across the Group and at a legal entity level.

"Use" does not imply that the model is used to directly run the business, but rather that the outputs of the internal model and the model itself are used to support decision-making, while acknowledging its limitations and balancing against other elements of the risk management framework.

The primary purpose of the internal model is to calculate the capital metrics required for regulatory reporting under Solvency II for each of the internal model legal entities and for the Group as whole. The outputs of the model are used internally and externally in risk based performance reporting and risk and financial strength reporting to the senior management, the Board, shareholders and rating agencies.

The granular metrics produced by the internal model are also used to set Group-wide strategy and support a series of other activities, including:

- Strategy & business planning: allocating capital between legal entities to measure risk-adjusted return and set risk appetites as part of the business planning cycle:
- Pricing: improving pricing and product design by assessing the level of capital required to support different types of product as calculated in the internal model:
- Transactions: assessing the appropriateness of potential acquisitions or business investments through the impact on surplus capital;
- Reinsurance: identifying the need for targeted reinsurance contracts to mitigate undesirable risk exposures, through modelling potential adverse scenarios; and
- Asset and liability management: measuring the impact of market changes on assets and liabilities to drive investment strategy.

Further details on how the internal model is fully integrated into Aviva's risk management system are given in section B.3.3.

#### E.4.2 Undertakings in scope of the internal model and integration with standard formula to derive the partial internal model

The Group has regulatory approval to use a partial internal model to calculate the SCR.

The table below shows the business units that are in scope of the Group partial internal model and whether they contain internal model and/or standard formula entities. The risks that are considered in the calculation of the Group SCR can be broadly grouped into the following risk categories; market risks, credits risks, general insurance underwriting risks, life and pensions underwriting risks and operational risk.

Management business unit	Internal model entities	Standard formula entities
UK	✓	✓
Aviva International Insurance	✓	✓
Poland Life	✓	✓
France Life	✓	
Canada General Insurance	✓	
Aviva Group Centre	✓	✓
Ireland Life		<b>√</b> 1
Ireland General Insurance		<b>√</b> 1
Italy Life		✓
France General Insurance		✓
Other Europe		✓
Asia Pacific		✓
Aviva Investors		✓
Staff Pension Schemes		✓

<sup>1</sup> Whilst our Irish subsidiaries use the standard formula for their Solo SCR, business reinsured from these entities into our UK subsidiaries is modelled using our internal model.

In addition, from 2017, Aviva has included currency risk in respect of the standard formula entities included in our Group partial internal model (including both currency translation and currency mismatch risks) within our internal model. From 2018, the main risks of Poland Life are modelled using the internal model for the Group SCR and the remaining risks are assessed using the standard formula.

As noted above (see section E.2.2), Aviva has chosen to implement a partial internal model Group-wide, using integration technique 2, as detailed in Annex XVIII of the Delegated Act, to combine the results of the internal model and standard formula calculations.

This technique requires specifying upper and lower bounds for correlations between the entire internal model block and each of the standard formula risk modules/sub-modules. A correlation matrix is then constructed with correlations between these bounds such that it maximises the basic SCR.

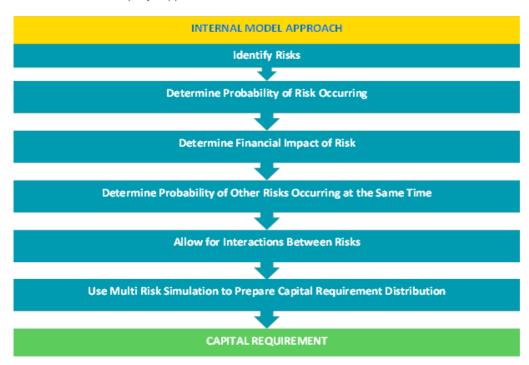
Given the multi-entity structure of the Group, and the varying sizes of our entities, our partial internal model has been designed to accurately model capital requirements for the major management business units with risk profiles that we consider to be of a nature, scale, or complexity that is distinct from that allowed for in the standard formula calculation.

### E.4.3 Calculation of the internal model

### E.4.3.1 Methods used

The purpose of the internal model is to identify the risks to which Aviva is exposed, model these risks using suitably calibrated inputs and aggregate them to compute the SCR. The internal model produces an aggregate distribution of the change in basic own funds over a one year time horizon from which the SCR can be directly derived (i.e. the SCR is the 99.5th percentile) in line with Article 101 of Directive 2009/138/EC.

An overview of the Company's approach is shown below.



Aviva's internal model allows flexibility in determining which statistical distributions to use to represent risk factors (such as mortality, interest rates or credit risk) including those with heavy tails and empirical distributions. The calibrations are not limited to assuming risks follow normal (or similar) distributions, as is implicit in the standard formula. This flexibility is important to ensure that we accurately model the behaviour of the most important risks to Aviva.

For the majority of risk factors, the statistical distributions are fitted directly to the relevant data available. However, for some risk types, such as general insurance liability risks, credit risk and operational risk, distributions are derived from further modelling processes. This approach is appropriate given both the materiality of these risk types and the desire to ensure the risk's behaviour is accurately reflected.

A wide range of testing and review processes are performed to ensure that the calibrations are appropriate, and the internal model outputs are reasonable. These range from bottom-up reviews of the material assumptions used in the modelling process and testing of the calibrations and loss functions (i.e. the mathematical formulae used as a proxy for the calculations in the asset and liability management models for the valuation of the assets and liabilities on the balance sheet), to top-down stress and scenario testing, as well as profit and loss attribution exercises.

Aviva has chosen to implement a partial internal model Group-wide, defined as using a combination of internal model and standard formula approaches to calculate solvency capital requirements for different components of the business. These components are generally legal entities or distinct blocks of business, rather than risks (further details are given in section E.4.2 above). In order to integrate the internal model capital calculations with the standard formula calculations the partial internal model technique 2 (as described in Annex XVIII of the Delegated Acts) is used.

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### E.4.3.2 Data used in the internal model

The key data we use in the Group internal models are:

- Accounting Data (IFRS) the Solvency II valuation of assets and liabilities is required to be consistent with IFRS, except where the IFRS
  measurement is on a non-economic basis. For the Solvency II balance sheet, most financial investments and certain non-technical
  liabilities are carried on the IFRS basis;
- Policy Data this includes claims as well as policies in-force and past policies;
- Operational Risk Data the Group use a combination of internal loss experience data (specific to Aviva), as well as data held in an external database of industry-wide Operational Risk losses, which is provided by Operational Risk Insurance Consortium (ORIC);
- Financial Market Data the Group's calibration process for market and credit risks often uses external financial market asset data (e.g. FTSE index returns):
- Internal Asset Data the valuation of the base Solvency II balance sheet relies on the market valuation of assets, as well as mark to model valuations of certain non-traded assets. The data used is taken from the accounting process and, therefore, most data will be included under the element 'accounting data'; and
- Other Data data that does not fall under the above five categories. This may include all data (including asset data) used for the calculation of the required economic capital under the Solvency II regime and the technical provisions including numerical, census or classification information, but not qualitative information.

Aviva's Solvency II data governance business standard establishes the control environment and the criteria to be used to assess the quality of the data in terms of appropriateness, completeness, accuracy and consistency before using it for the SCR calculation.

### E.4.3.3 Calculation of the Group SCR and subsidiary SCR

Aviva generally uses the same approach, including methodology and assumptions, for each subsidiary's contribution to the Group SCR and the subsidiary's own Solo SCR, apart from where the Solvency II rules require a different approach: for example, the treatment of participations and intra-group transactions. One exception is that we model the key risks of our Poland Life subsidiary within our internal model for the Group SCR, whereas the standard formula is used for the Solo SCR. Also, whilst our Irish subsidiaries use the standard formula for their Solo SCR, business reinsured from these entities into our UK subsidiaries is modelled using our internal model.

### E.4.3.4 Impact on risk profile

It is a key requirement for the use of an internal model that it should reflect the actual risks faced by the business. The internal model was assessed as being appropriate when Aviva was granted permission to use it in the calculation of its SCR and subsequent approval of changes to the internal model.

Aviva continuously assesses the model's ongoing appropriateness using various techniques, including a large number of tests that form part of the validation framework referred to in section B.3.5. These tests include comparisons of the internal model results both with management views and with historical experience. Where a significant difference is noted, consideration is given as to whether this difference merits holding additional capital.

In Aviva's work on the year-end 2019 results, no significant concerns were identified with its appropriateness in determining the capital requirements of the Company, and hence no additional capital was considered necessary.

### E.4.4 Differences between standard formula and internal model methodologies and underlying assumptions

The key difference between the standard formula and internal model methodology is that the methodology and assumptions for internal model risks are tailored to Aviva's risk profile, whereas the standard formula is a standardised approach.

The standard formula prescribes formulae to calculate the capital required driven by exposure to various risks; for the internal model the Group calibrate a distribution of losses for each risk and use these, along with a set of correlations between these risks, to derive a joint distribution of losses for the business. The capital requirement is derived from this joint distribution, to ensure the Group holds sufficient capital with 99.5% confidence. Calibrating risks for the internal model, therefore, requires detailed data analysis and use of statistical models to derive the most appropriate distribution.

The two bases use a different treatment for loss absorbing capacity of technical provisions: under the internal model, the Group use loss functions net of this, whereas in the standard formula calculation, this is applied as an adjustment to the gross basic solvency capital requirement (BSCR). The calculation of loss absorbing capacity of tax also differs between the two approaches as this is specified in the standard formula calculation.

One key difference in the aggregation approach for internal model and standard formula results from the different modelling approaches:

- For the internal model, Aviva determines an aggregate distribution of losses by combining marginal risk distributions for each risk using a Gaussian Copula and applying loss functions; and
- The standard formula uses a hierarchical correlations approach, where explicit correlation matrices are used to combine sub-module losses within each risk module, and then to combine the calculated losses of the different risk modules.

A key feature of our approach compared to the standard formula is that we can capture fat-tailed risks (i.e. risks where the probability of extreme values is higher than using the normal distribution) and non-linear loss profiles. In addition, the Group are able to model diversification more granularly and, in particular, capture important features such as geographical diversification. Another key difference is that the internal model reflects all material quantifiable risks to which Aviva is exposed, whereas the standard formula only considers a subset of risks.

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### Market risks module

- The internal model considers changes in market volatility, which are not explicitly modelled in the standard formula. Interest rate and equity volatility risks are particularly important for business with guarantees
- Credit risk Aviva's model includes sovereign bonds, which are not currently modelled under standard formula; the model also explicitly considers default migration and spread risks including some allowance for diversification between various credit exposures
- Interest rates are modelled using three principal components, not just the change in the level of interest rates as under the standard formula
- Inflation risk Aviva explicitly models inflation risk there is no inflation risk in the standard formula
- Equity/property risk only exposure to asset price falls is reflected in the standard formula, whereas Aviva models the full distribution of equity/property returns, allowing us to capture exposure to equity/property values rising or falling
- Currency risk Aviva models currency translation risk reflecting that exposure to this risk varies with the impact of the other risks, and that there is diversification between currencies, whereas these factors are not assessed in the standard formula

### Health risk module

 Health business written by our Life businesses is separately modelled. Currently, health business written by our non-life businesses is assessed using the standard formula

### Counterparty default module

The standard formula considers all counterparty default risk under one module; whereas for the internal model, the Group tailors our
modelling to the type of the counterparty and the nature of the exposure

### Life insurance module

• The standard formula assumes standard portfolios, whereas Aviva calibrations are tailored to its specific portfolios

### Non-life insurance module

- Aviva has built a general insurance specific model that allows the Group to model the specific risks and exposures of the Aviva General Insurance business. The standard formula doesn't consider the impact of inflation explicitly, which is one of the key risks for the Aviva General Insurance business
- In addition, the Group distinguishes between commercial and personal lines, whereas the standard formula does not reflect this level of granularity

### Operational risk

Aviva models operational risks using a scenario-based approach. The standard formula uses a formulaic approach.

### E.5 Non-compliance with the minimum consolidated Group SCR and Group SCR

Aviva complied with the minimum consolidated Group SCR and Group SCR at all times during 2019.

### E.6 Any other material information

### Additional information on capital management (unaudited)

The Solvency II shareholder cover ratio is 203% at 31 December 2019. 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 position:

- The contribution to the Group's SCR and own funds of the most material fully ring fenced with-profits funds of £2.5 billion at 31 December 2019 (2018: £2.6 billion) and staff pension schemes in surplus of £1.2 billion at 31 December 2019 (2018: £1.1 billion) 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 change in regulations announced in December 2019 allows French insurers to place a part of the Provision pour Participation aux Excédents ("PPE") into Solvency II own funds. As a result £0.4 billion is included within Group regulatory own funds but is excluded from the shareholder 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 the Solvency II position that arise only when the formal TMTP reset points are triggered. The 31 December 2019 position is based on a formal reset of the TMTP, in line with the requirement to reset the TMTP at least every two years and hence no adjustment is required. The 31 December 2018 Solvency II position includes a notional reset (£0.1 billion decrease in surplus). The TMTP is amortised on a straight-line basis over 16 years from 1 January 2016 in line with the Solvency II rules.
- The 31 December 2019 Solvency II position includes three pro forma adjustments. These relate to the disposal of FPI (£nil impact on surplus), the disposal of Hong Kong (£nil impact on surplus) and the potential impact of an expected change to Solvency II regulations on the treatment of equity release mortgages (£0.2 billion decrease in surplus as a result of an increase in SCR). The 31 December 2018 Solvency II position includes the pro forma impact of the disposals of FPI (£0.1 billion increase in surplus) and the potential impact of an expected change to Solvency II regulations on the treatment of equity release mortgages (£0.2 billion reduction in surplus as a result of an increase in SCR).

### Summary of Solvency II position (shareholder view)

	Own funds 2019 £m	SCR 2019 £m	Surplus 2019 £m	Own funds 2018 £m	SCR 2018 £m	Surplus 2018 £m
Solvency II regulatory surplus as at 31 December Adjustments for:	28,822	(15,713)	13,109	27,593	(15,344)	12,249
Fully ring-fenced with-profit funds	(2,501)	2,501	_	(2,635)	2,635	_
Staff pension schemes in surplus	(1,175)	1,175	_	(1,121)	1,121	_
PPE	(403)	_	(403)	_	_	_
Notional reset of TMTP	_	_	_	(127)	_	(127)
Proforma adjustments	(117)	(75)	(192)	(101)	25	(76)
Solvency II shareholder surplus at 31 December	24,626	(12,112)	12,514	23,609	(11,563)	12,046

### Movement in Solvency II surplus (shareholder view)

Shareholder view	Own funds 2019	SCR 2019	Surplus 2019
	£m	£m	12.046
Solvency II surplus at 1 January	23,609	(11,563)	12,046
Operating capital generation <sup>1</sup>	2,257	2	2,259
Non-operating capital generation	198	(570)	(372)
Dividends	(1,222)	_	(1,222)
Share buy-back	_	_	_
Hybrid debt repayments	(210)	_	(210)
Acquired/divested business	(6)	19	13
Solvency II surplus at 31 December	24,626	(12,112)	12,514

<sup>1</sup> Operating Capital Generation (OCG) measures the amount of Solvency II capital the Group generates from operating activities and incorporates an expected return on investments supporting the life and non-life insurance businesses. OCG includes the impacts of new business, earnings from existing business, the impact of capital actions and non-economic assumption changes.

The Solvency II surplus is £12,514 million at 31 December 2019 (2018: £12,046 million), with a shareholder cover ratio of 203% (2018: 204%). The movement since 31 December 2018 is mainly due to the beneficial impact from capital generation partially offset by the payment of the Aviva plc dividend and the redemption of the hybrid debt in November 2019.

Non-operating generation is primarily due to the impact of a fall in interest rates, strengthening of Sterling against the Euro, employer contributions to the staff pension scheme and the impact of the transfer of the Ireland branch of the UK business to Ireland following the decision by the UK to leave the European Union partially offset by the narrowing of credit spreads and strong equity market performance in 2019

### Reserve de Capitalisation in France

In France the Réserve de Capitalisation (RdC) is a regulated reserve to which realised gains and losses on the fixed interest bond portfolio are allocated. The RdC impacts the cash flows to policyholders since the financial profit available to assess the bonus rates, takes into account the ability of the RdC to absorb losses that would occur from sales within the bond portfolio.

In the context of Solvency II, the revised France Code des Assurances, which came into effect at 1 January 2016, clarifies the treatment of the residual value of the RdC (i.e. the present value at the end of the projection when it is assumed that there are no more obligations towards policyholders). The Code des Assurances states that the residual value of the RdC is assumed to be attributable to the shareholders and so is included within Tier 1 own funds (part of the reconciliation reserve) in Solvency II.

### Foreseeable dividends

Dividends are deducted from own funds as soon as they are "foreseeable". For interim dividends, this is considered at the point at which they are declared by the directors, and, for final dividends, this is considered to be the point at which the Board approves the dividend to be put forward to shareholders for approval at the Annual General Meeting (AGM).

A final dividend of £841 million was approved by the Aviva plc Board on 4 March 2020 to be paid on 2 June 2020 following approval at the AGM on the 26 May 2020. This was not deemed foreseeable at 31 December 2019 and not deducted from own funds.

On 8 April 2020, the Board of Directors subsequently agreed to withdraw its recommendation to pay the 2019 final dividend to ordinary shareholders in June 2020. The Board of Directors expects to reconsider any distributions to ordinary shareholders in the fourth quarter of 2020. This decision was taken in the wake of the unprecedented challenges COVID-19 presents for businesses, households and customers, and the adverse and highly uncertain impact on the global economy. Regulatory authorities, including EIOPA, the PRA and regulators of other Aviva subsidiaries, have responded by publicly urging restraint on dividend payments by insurers to shareholders. In light of the significant uncertainties presented by COVID-19, the Board agreed with our regulators that it is prudent to suspend dividend payments at this time.

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### Dynamic volatility adjustment (DVA) (unaudited)

The Group SCR calculation includes an allowance to vary the volatility adjustment (VA) for Aviva Vie S.A. and Aviva Epargne Retraite S.A.. The VA is a stabilising measure that avoids excessive short-term volatility on the Solvency II balance sheet and is implemented as an increase in the discount rate. The DVA allows the VA to vary in the SCR calculation as credit spreads vary. It is implemented by deriving the VA that would apply if the reference portfolio, as specified by EIOPA, was subject to the Aviva internal model credit stresses. The approved methodology accounts for the extent to which the Aviva portfolio is able to earn the VA under stressed conditions, and for the fact that the Aviva portfolio and the VA reference portfolio may not move in parallel at times of stress. The impact of the dynamic volatility adjustment is to reduce the Group SCR by £0.7 billion at 31 December 2019.

### E.6.1 Additional information on the COVID-19 global pandemic (unaudited)

Further information on the impact of the COVID-19 global pandemic is contained within section F.6.

# **Section F Other information**

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### F.1 Cautionary statement

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 outcome of the negotiations on the future economic relationship between the UK and the EU); 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 manmade catastrophic events (including the impact of COVID-19) 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; 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 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 Annual report and accounts.

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.

This Solvency and Financial Condition Report has been prepared for, and only for, the members of the Company, as a body, and no other persons. The Company, its directors, employees, agents or advisers do not accept or assume responsibility to any other person to who this document is shown or into whose hands it may come, and any such responsibility or liability is expressly disclaimed.

System of Governance Risk Profile Valuation for Capital Other Business and Summary Performance Solvency Purposes Management Information

# F.2.1 Public disclosure templates Annex I S.02.01.02

### Balance sheet

Amount in 000s		Solvency II Value
Assets		C0010
Intangible assets	R0030	
Deferred tax assets	R0040	80,757
Pension benefit surplus	R0050	2,745,681
Property, plant & equipment held for own use Investments (other than assets held for index-linked and unit-linked contracts)	R0060	718,963 212,436,686
Property (other than for own use)	R0070 R0080	2,477,512
Holdings in related undertakings, including participations	R0090	62,688,713
Equities	R0100	4,003,203
- Equities – Listed	R0110	3,537,510
– Equities – Unlisted	R0120	465,693
Bonds	R0130	130,472,731
- Government Bonds	R0140	62,366,238
- Corporate Bonds	R0150	62,862,804
- Structured Notes	R0160	4,293,671
- Collateralised securities	R0170	950,018
Collective Investments Undertakings  Derivatives	R0180 R0190	5,947,296 5,965,372
Deposits other than cash equivalents	R0200	826,097
Other investments	R0210	55,762
Assets held for index-linked and unit-linked contracts	R0220	170,924,397
Loans & mortgages	R0230	29,054,546
- Loans on policies	R0240	824,058
- Loans & mortgages to individuals	R0250	8,035,091
- Other loans & mortgages	R0260	20,195,397
Reinsurance recoverables from:	R0270	8,732,098
- Reinsurance recoverables - Non-life and health similar to non-life	R0280	1,491,366
- Reinsurance recoverables - Non-life excluding health	R0290	1,452,537
– Reinsurance recoverables – Health similar to non-life	R0300	38,829
- Reinsurance recoverables - Life and health similar to life, excluding health and index-linked and unit-linked	R0310	3,262,952
- Reinsurance recoverables - Health similar to life	R0320	624,416
Reinsurance recoverables – Life excluding health and index-linked and unit-linked	R0330	2,638,536
- Reinsurance recoverables - Life index-linked and unit-linked	R0340	3,977,780
Deposits to cedants Insurance & intermediaries receivables	R0350	81,367 710,928
insulance a interneutaries receivables Reinsurance receivables Reinsurance receivables	R0360 R0370	403,530
Nemsulariae recentariaes Receivables (trade, not insurance)	R0380	5,272,931
Own Shares (held directly)	R0390	7,178
Amounts due in respect of own fund items or initial fund called up but not yet paid in	R0400	- 1,210
Cash and cash equivalents	R0410	2,500,699
Any other assets, not elsewhere shown	R0420	764,144
Total assets	R0500	434,433,905
Liabilities		
Liabilities Technical provisions - Non-life	R0510	12,196,227
- Technical provisions - Non-life (excluding health)	R0520	11,653,313
– TP calculated as a whole – Non-life (excluding health)	R0530	
– Best Estimate – Non-life (excluding health)	R0540	11,074,140
– Risk margin – Non-life (excluding health)	R0550	579,173
- Technical provisions - Health (similar to non-life)	R0560	542,914
– TP calculated as a whole – Health (similar to non-life)	R0570	_
– Best Estimate – Health (similar to non-life)	R0580	524,548
– Risk margin – Health (similar to non-life)	R0590	18,366
Technical provisions – Life (excluding index-linked and unit linked)	R0600	179,552,785
- Technical provisions - Health (similar to life)	R0610	946,154
– TP calculated as a whole – Health (similar to life)	R0620	_
- Best Estimate - Health (similar to life)	R0630	713,251
Risk margin – Health (similar to life)	R0640	232,903
- Technical provisions - Life (excluding health and index-linked and unit-linked)	R0650	178,606,631
- TP calculated as a whole – Life (excl health, index-linked and unit-linked)	R0660	
- Best Estimate - Life (excl health, index-linked and unit-linked)	R0670	177,037,072
Risk margin – Life (excl health, index-linked and unit-linked)	R0680	1,569,559
Technical provisions – Index-linked and unit-linked  - TP calculated as a whole – Index-linked and unit-linked	R0690	169,699,872
- IP calculated as a whole - Index-linked and unit-linked  - Best Estimate - Index-linked and unit-linked	R0700	160 020 447
	R0710	169,030,447
- Risk margin - Index-linked and unit-linked  Contingent liabilities	R0720	669,425
Provisions other than technical provisions	R0740 R0750	662,015
Pension benefit obligations	R0760	816,107
Deposits from reinsurers	R0770	77,936
Deposits from remainers  Deferred tax (labilities	R0780	3,143,653
Defivatives Defivatives	R0790	5,627,868
Debts owed to credit institutions	R0800	736,323
Financial liabilities other than debts owed to credit institutions	R0810	17,645,206
Insurance & intermediaries payables	R0820	3,330,584
Reinsurance payables		289,537
· ·	R0830	,
Payables (trade, not insurance)	R0830 R0840	7,239,678
		7,239,678 7,020,806
Payables (trade, not insurance) Subordinated liabilities - Subordinated liabilities not in BOF	R0840	7,020,806
Subordinated liabilities	R0840 R0850	7,020,806 79,207
Subordinated liabilities  - Subordinated liabilities not in BOF	R0840 R0850 R0860	7,020,806 79,207
Subordinated liabilities  - Subordinated liabilities not in BOF  - Subordinated liabilities in BOF	R0840 R0850 R0860 R0870	79,207 6,941,599
Subordinated liabilities  - Subordinated liabilities not in BOF  - Subordinated liabilities in BOF  Any other liabilities, not elsewhere shown  Total liabilities	R0840 R0850 R0860 R0870 R0880 R0900	7,020,806 79,207 6,941,599 1,602,977 <b>409,641,574</b>
Subordinated liabilities  - Subordinated liabilities not in BOF  - Subordinated liabilities in BOF  Any other liabilities, not elsewhere shown	R0840 R0850 R0860 R0870 R0880	7,020,80 79,20 6,941,59 1,602,97

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### **Annex I** S.05.01.02

### Premiums, claims and expenses by line of business

Amounts in £000s										
				Line of business for: life	e insurance obligations				Life obligations	
		Health [accepted non-proportional reinsurance]	Insurance with profit participation	Unit-linked or index-linked insurance	Other life insurance	Annuities stemming from non-life insurance contracts and relating to health insurance obligations	Annuities stemming from non-life insurance contracts and relating to insurance obligations other than health insurance obligations	<b>Health reinsurance</b>	Life reinsurance	Total
		C0210	C0220	C0230	C0240	C0250	C0260	C0270	C0280	C0300
Premiums written										
Gross – Direct Business	R1410	846,761	8,462,546	15,236,565	7,868,827				61	32,414,761
Reinsurers' share	R1420	183,670	11,165	(525,104)	2,656,347					2,326,079
Net	R1500	663,091	8,451,381	15,761,669	5,212,480				61	30,088,682
Premiums earned										
Gross – Direct Business	R1510	846,761	8,462,546	15,236,565	7,868,828				61	32,414,763
Reinsurers' share	R1520	183,670	11,165	(525,104)	2,656,347					2,326,079
Net	R1600	663,091	8,451,381	15,761,669	5,212,481				61	30,088,684
Claims incurred										
Gross – Direct Business	R1610	388,372	8,997,408	13,846,332	5,327,418	23,243	126,776		55,089	28,764,636
Reinsurers' share	R1620	121,079	65,724	90,042	1,512,723	1,738	71,243			1,862,549
Net	R1700	267,293	8,931,684	13,756,290	3,814,695	21,505	55,533		55,089	26,902,087
Changes in other technical provisions										
Gross – Direct Business	R1710	(107,514)	(2,490,639)	(24,657,555)	(4,338,165)	249	(62,464)		(281,434)	(31,937,522)
Reinsurers' share	R1720	(34,450)	118,400	(71,960)	(619,055)				(101,708)	(708,772)
Net	R1800	(73,064)	(2,609,039)	(24,585,595)	(3,719,110)	249	(62,464)		(179,726)	(31,228,750)
Expenses incurred	R1900	166,576	621,755	1,094,896	1,499,986	4,006			8,675	3,395,893
Other expenses	R2500									26,208
Total expenses	R2600									3,422,101

Business and System of Risk Valuation for Capital **Other**Summary Performance Governance Profile Solvency Purposes Management **Information** 

### Annex I S.05.01.02

### Premiums, claims and expenses by line of business

Amounts in £000

				Li	ne of business for: no	on-life insurance and	reinsurance obliga	ations (direct busines	s and accepted prop	ortional reinsuran	ice		
		Medical expense insurance [direct business]	Income protection insurance [direct business]	Workers' compensation insurance [direct business]	Motor vehicle liability insurance [direct business]	Other motor insurance [direct business]	Marine, aviation and transport insurance [direct business]	Fire and other damage to property insurance [direct business]	General liability insurance [direct business]	Credit and suretyship insurance [direct business]	Legal expenses insurance [direct business]	Assistance [direct business]	Miscellaneous financial loss [direct business]
		C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0090	C0100	C0110	C0120
Premiums written													
Gross – Direct Business	R0110	1,032,189	270,652		3,010,591	1,313,419	61,552	3,954,930	1,018,527	119,373	58,676	69,599	69,120
Gross – Proportional reinsurance accepted	R0120	342				13	9,970	44,374	7,113	4,451			615
Gross – Non-proportional reinsurance accepted	R0130												
Reinsurers' share	R0140	28,761	9,105		43,548	22,157	3,799	448,826	89,880	26,653	3,284	2,501	10,097
Net	R0200	1,003,770	261,547		2,967,043	1,291,275	67,723	3,550,478	935,760	97,171	55,392	67,098	59,638
Premiums earned													
Gross – Direct Business	R0210	1,012,052	278,656		3,031,572	1,300,561	57,487	3,805,087	965,734	103,938	57,892	69,222	65,141
Gross – Proportional reinsurance accepted	R0220	342				13	9,973	45,405	6,928	4,236			571
Gross – Non-proportional reinsurance accepted	R0230												
Reinsurers' share	R0240	29,701	10,014		48,258	22,503	4,028	434,832	86,927	20,004	3,178	2,336	5,146
Net	R0300	982,693	268,642		2,983,314	1,278,071	63,432	3,415,660	885,735	88,170	54,714	66,886	60,566
Claims incurred													
Gross – Direct Business	R0310	735,155	143,431		2,129,981	925,145	50,786	1,841,172	688,404	32,635	12,505	44,343	23,670
Gross – Proportional reinsurance accepted	R0320	219			2,720	210	6,890	30,390	3,212	147	(28)		1,353
Gross – Non-proportional reinsurance accepted	R0330												
Reinsurers' share	R0340	25,750	8,763		26,941	17,456	11,137	122,675	141,266	8,241	564	796	(49)
Net	R0400	709,624	134,668		2,105,760	907,899	46,539	1,748,887	550,350	24,541	11,913	43,547	25,072
Changes in other technical provisions													
Gross – Direct Business	R0410	8	1,355										505
Gross – Proportional reinsurance accepted	R0420		184										
Gross – Non-proportional reinsurance accepted	R0430												
Reinsurers' share	R0440		8										
Net	R0500	8	1,531										505
Expenses incurred	R0550	231,378	90,108		744,188	468,822	22,936	1,585,320	343,702	36,885	23,976	20,797	35,460
Other expenses	R1200												
Total expenses	R1300												

Business and System of Risk Valuation for Capital **Other**Summary Performance Governance Profile Solvency Purposes Management **Information** 

### Annex I S.05.01.02

### Premiums, claims and expenses by line of business

Amounts in £000

Amounts in £000s						
		Line of bu	siness for: accepted	non-proportional re	insurance	
		Non- proportional health reinsurance	Non- proportional casualty reinsurance	Non- proportional marine, aviation and transport reinsurance	Non- proportional property reinsurance	Total
		C0130	C0140	C0150	C0160	C0200
Premiums written						
Gross – Direct Business	R0110					10,978,629
Gross – Proportional reinsurance accepted	R0120					66,878
Gross – Non-proportional reinsurance accepted	R0130					
Reinsurers' share	R0140					688,612
Net	R0200					10,356,895
Premiums earned						
Gross – Direct Business	R0210					10,747,343
Gross – Proportional reinsurance accepted	R0220					67,468
Gross – Non-proportional reinsurance accepted	R0230					
Reinsurers' share	R0240					666,928
Net	R0300					10,147,883
Claims incurred						
Gross – Direct Business	R0310					6,627,224
Gross – Proportional reinsurance accepted	R0320					45,114
Gross – Non-proportional reinsurance accepted	R0330		1,128	1,568	146	2,842
Reinsurers' share	R0340		1,128	1,568	146	366,380
Net	R0400					6,308,800
Changes in other technical provisions						
Gross – Direct Business	R0410					1,867
Gross – Proportional reinsurance accepted	R0420					184
Gross – Non-proportional reinsurance accepted	R0430					
Reinsurers' share	R0440					8
Net	R0500					2,043
Expenses incurred	R0550					3,603,573
Other expenses	R1200					31,363
Total expenses	R1300					3,634,936

### Annex I S.05.02.01

### Premiums, claims and expenses by country

mounts in £000

Amounts in £000s								
		Home Country		Top 5 countries (by an	nount of gross premium written	ı) – life obligations		Total Top 5 and home country
		C0150	C0160	C0170	C0180	C0190	C0200	C0210
	R1400		IT	FR	IE	SG	PL	
		C0220	C0230	C0240	C0250	C0260	C0270	C0280
Premiums written								
Gross	R1410	18,374,782	5,388,299	5,337,097	1,415,277	1,144,467	420,140	32,080,062
Reinsurers' share	R1420	1,663,846	16,375	27,533	213,457	342,300	2,671	2,266,182
Net	R1500	16,710,936	5,371,924	5,309,564	1,201,820	802,167	417,469	29,813,880
Premiums earned								
Gross	R1510	18,374,782	5,388,299	5,337,097	1,415,277	1,144,467	420,140	32,080,062
Reinsurers' share	R1520	1,663,846	16,375	27,533	213,457	342,300	2,671	2,266,182
Net	R1600	16,710,936	5,371,924	5,309,564	1,201,820	802,167	417,469	29,813,880
Claims incurred								
Gross	R1610	19,643,696	2,682,690	3,835,691	1,244,158	790,597	298,268	28,495,099
Reinsurers' share	R1620	1,620,934	13,989	46,698	80,868	47,856	1,631	1,811,976
Net	R1700	18,022,762	2,668,701	3,788,993	1,163,290	742,741	296,637	26,683,123
Changes in other technical provisions								
Gross	R1710	(21,202,493)	(3,633,701)	(4,981,996)	(2,115,277)	(374,415)	(17,916)	(32,325,797)
Reinsurers' share	R1720	(159,720)	1,976	11,847	(216,699)	(416,786)	19	(779,362)
Net	R1800	(21,042,773)	(3,635,677)	(4,993,843)	(1,898,578)	42,371	(17,935)	(31,546,435)
Expenses incurred	R1900	1,971,635	252,629	438,198	153,933	236,352	108,249	3,160,994
Other expenses	R2500							26,208
Total expenses	R2600							3,187,202

		Home Country		Top 5 countries (by amour	nt of gross premium written) – n	on life obligations		Total Top 5 and home country
		C0010	C0020	C0030	C0040	C0050	C0060	C0070
	R0010		CA	FR	IE	IT	SG	
Premiums written		C0080	C0090	C0100	C0110	C0120	C0130	C0080
Gross – Direct Business	R0110	4,987,758	3,200,583	1,506,807	455.732	339,006	254,682	10,744,569
Gross – Proportional reinsurance accepted	R0120	54,376	205	4.768	400,102	339,000	120	59,469
Gross – Non-proportional reinsurance accepted	R0130	54,370	203	4,700			120	35,465
		101.001	142.146	50.150	10.101	10.672	20.502	672.664
Reinsurers' share	R0140	404,084	143,146	58,158	18,101	19,673	29,502	672,664
Net	R0200	4,638,050	3,057,642	1,453,417	437,631	319,333	225,300	10,131,374
Premiums earned								
Gross – Direct Business	R0210	4,919,440	3,098,386	1,478,384	454,717	328,925	239,258	10,519,111
Gross – Proportional reinsurance accepted	R0220	55,983	177	4,810			120	61,089
Gross – Non-proportional reinsurance accepted	R0230							
Reinsurers' share	R0240	390,974	139,221	57,920	16,071	20,518	30,264	654,968
Net	R0300	4,584,449	2,959,342	1,425,274	438,646	308,407	209,114	9,925,232
Claims incurred								
Gross – Direct Business	R0310	2,964,967	1,916,857	978,261	248,251	202,854	197,016	6,508,205
Gross – Proportional reinsurance accepted	R0320	43,091	(804)	577			6	42,871
Gross – Non-proportional reinsurance accepted	R0330	2,842						2,842
Reinsurers' share	R0340	225,162	76,750	29,783	(9,664)	6,299	25,367	353,698
Net	R0400	2,785,738	1,839,303	949,055	257,915	196,555	171,655	6,200,220
Changes in other technical provisions								
Gross – Direct Business	R0410	1,010		1,499				2,509
Gross – Proportional reinsurance accepted	R0420			184				184
Gross – Non-proportional reinsurance accepted	R0430							
Reinsurers' share	R0440							
Net	R0500	1,010		1,683				2,693
Expenses incurred	R0550	1,747,183	1,061,989	416,083	153,136	107,547	46,640	3,532,578
Other expenses	R1200							31,363
Total expenses	R1300							3,563,940

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R0020

R0050

### Annex I S.22.01.22

### Impact of long term guarantees and transitional measures

Amounts in 000

Technical Provisions
Basic Own Funds
Eligible own funds to meet Solvency Capital Requirement
Solvency Capital Requirement

Amount with LG measures and transitionals	Impact of transitional on technical provisions	Impact of transitional on interest rate	Impact of volatility adjustment set to zero	Impact of matching adjustment set to zero
C0010	C0030	C0050	C0070	C0090
361,448,883	4,480,428	_	730,238	6,721,663
27,522,890	(3,836,438)	_	(311,514)	(6,768,712)
28,821,902	(3,836,438)	_	(311,514)	(6,768,712)
15,713,242	505,705	_	1,048,439	6,693,961

### Annex I S.23.01.22

### Own funds

Amounts in £000s

Amounts in £000s						
			Tier 1 Unrestricted	Tier 1	Tier 2	Tier 3
		Total		Restricted		
		C0010	C0020	C0030	C0040	C0050
Basic own funds before deduction for participations in other financial sector						
Ordinary share capital (gross of own shares)	R0010	980,279	980,279		-	
Non-available called but not paid in ordinary share capital at group level	R0020	-			_	
Share premium account related to ordinary share capital	R0030	1,238,228	1,238,228		_	
Initial funds, members' contributions or the equivalent basic own fund item for mutual and mutual-type undertakings	R0040	-			_	
Subordinated mutual member accounts	R0050	_			_	_
Non-available subordinated mutual member accounts at group level	R0060	-		-	_	_
Surplus funds	R0070	5,982,181	5,982,181			
Non-available surplus funds at group level	R0080	-	-			
Preference shares	R0090	950,017		950,017	_	_
Non-available preference shares at group level	R0100	_		-	-	_
Share premium account related to preference shares	R0110	_		-	_	
Non-available share premium account related to preference shares at group level	R0120	-	40.040.740	_	_	_
Reconciliation reserve – Group	R0130	13,042,742	13,042,742	000 500	E 704 040	250.050
Subordinated liabilities	R0140	6,941,600		888,502	5,794,040	259,058
Non-available subordinated liabilities at group level	R0150	- 00.757		_	_	- 00.757
An amount equal to the value of net deferred tax assets	R0160	80,757				80,757
The amount equal to the value of net deferred tax assets not available at the group level  Other own fund items approved by the supervisory authority as basic own funds not specified above	R0170 R0180	4,393	_	_	_	4,393
Non-available own funds related to other own fund items approved by supervisory authority (group level)	R0190			_		
Minority interests (if not reported as part of another own fund item)	R0200				_	
Non-available minority interests at group level	R0210	389,507	389,507			
Own funds from the financial statements that should not be represented by the reconciliation reserve and do	110210	303,301	303,301			
not meet the criteria to be classified as Solvency II own funds						
Own funds from the financial statements that should not be represented by the reconciliation reserve and do not meet						
the criteria to be classified as Solvency II own funds	R0220	_				
Deductions						
Deductions for participations in financial and credit institutions	R0230	1,299,012	1,299,012	-	_	-
whereof deducted according to Article 228 of the Directive 2009/138/EC	R0240	-	-	_	_	
Deductions for participations where there is non-availability of information (Article 229) – Group	R0250	-	-	_	_	_
Deduction for participations when using Deduction & Aggregation (D&A) or combination of methods (Article 233) –						
Group	R0260	-	-	_	_	-
Total non-available own fund items	R0270	393,900	389,507	-	_	4,393
Total deductions	R0280	1,692,911	1,688,518	-	-	4,393
Total basic own funds after deductions – Group	R0290	27,522,892	19,554,911	1,838,519	5,794,040	335,422
Ancillary own funds						
Unpaid and uncalled ordinary share capital callable on demand	R0300	_			_	
Unpaid and uncalled initial funds, members' contributions or the equivalent basic own fund item for mutual and mutual-type undertakings, callable on demand	R0310					
Unpaid and uncalled preference shares callable on demand	R0320					_
A legally binding commitment to subscribe and pay for subordinated liabilities on demand	R0330				_	_
Letters of credit and guarantees under Article 96(2) of the Directive 2009/138/EC	R0340				_	
Letters of credit and guarantees other than under Article 96(2) of the Directive 2009/138/EC	R0350				_	-
Supplementary members calls under first subparagraph of Article 96(3) of the Directive 2009/138/EC	R0360	_			-	
Supplementary members calls other than under first subparagraph of Article 96(3) of the Directive 2009/138/EC	R0370	-			-	-
Non-available ancillary own funds	R0380	_			_	_
Other ancillary own funds	R0390	_			_	_
Total ancillary own funds – Group	R0400	_			-	_
Own funds of other financial sectors						
Credit institutions, investment firms, financial institutions, alternative investment fund managers, UCITS management						
companies	R0410	1,059,275	1,059,275	_	_	
Institutions for occupational retirement provision	R0420	234,224	234,224	_	_	_
Non-regulated entities carrying out financial activities	R0430	5,513	5,513	_	_	
Total own funds of other financial sectors	R0440	1,299,012	1,299,012	_	_	_
Own funds when using the D&A, exclusively or in combination of method 1						
Own funds aggregated when using the D&A and combination of method	R0450	-	-	_	-	_
Own funds of related undertakings when using the D&A and a combination of method without intra-group transactions	R0460	-	_	_	_	
Total available own funds to meet the consolidated group SCR (excluding own funds from other financial sector and from the undertakings included via D&A)	R0520	27,522,892	19,554,911	1,838,519	5,794,040	335,422
Total available own funds to meet the minimum consolidated group SCR	R0530	27,187,470	19,554,911	1,838,519	5,794,040	333,422
Total eligible own funds to meet the minimum consolidated group SCR (excluding own funds from other financial sector and from		21,101,710	13,334,311	1,000,013	5,154,040	
the undertakings included via D&A)	R0560	27,522,892	19,554,911	1,838,519	5,794,040	335,422
Total eligible own funds to meet the minimum consolidated group SCR	R0570	22,855,747	19,554,911	1,838,519	1,462,317	
Minimum consolidated group SCR (Article 230)	R0610	7,311,586	,,	,,	,,	
Ratio of eligible own funds to minimum consolidated group SCR	R0650	3.1260				
Total eligible own funds to meet the group SCR (including own funds from other financial sector and from the						
undertakings included via D&A)	R0660	28,821,904	20,853,923	1,838,519	5,794,040	335,422
Group SCR	R0680	15,713,242				
Ratio of eligible own funds to group SCR including other financial sectors and the undertakings included via D&	<b>A</b> R0690	1.8342				

Risk Other Business and System of Valuation for Capital Performance Summary Governance Profile Solvency Purposes Management Information

### **Annex I** S.23.01.22

### Own funds

Amounts in £000s

Recom	Littation Rese	ei ve
Excess	of assets over	liabil

Own shares (held directly and indirectly)

Foreseeable dividends, distributions and charges

Other basic own fund items – Group
Adjustment for restricted own fund items in respect of matching adjustment portfolios and ring fenced funds
Other non-available own funds

### Reconciliation reserve - Group

Expected profits

Expected profits included in future premiums (EPIFP) – Life business Expected profits included in future premiums (EPIFP) – Non-life business

Total expected profits included in future premiums (EPIFP)

	Total	Tier 1 Unrestricted	Tier 1 Restricted	Tier 2	Tier 3
	C0060				
R0700	24,792,331				
R0710	7,178				
R0720	11,145				
R0730	9,231,461				
R0740	1,303,064				
R0750	1,196,741				
R0760	13,042,742				
R0770	4,473,696				
R0780	190,818				
R0790	4,664,514				

Business and System of Risk Valuation for Capital **Other**Summary Performance Governance Profile Solvency Purposes Management **Information** 

### Annex I S.25.02.22

## Solvency Capital Requirement – for groups using the standard formula and partial internal model

### Amount in £000s

Overall SCR

SCR for undertakings included via D and A

Solvency Capital Requirement

Unique number of component	Component Description
C0010	C0020
100000	Market Risk
200000	Counterparty Risk
300000	Life underwriting risk
400000	Health underwriting risk
500000	Non-life underwriting risk
701000	Operational risk
801000	Other risks
802000	Loss-absorbing capacity of technical provisions
803000	Loss-absorbing capacity of deferred tax
804000	Other adjustments

Calculation of the Solvency Capital Requirement	Amount modelled	Undertaking Specific parameters	Simplifications
C0030	C0070	C0090	C0120
13,063,866	9,694,350		None
606,154	312,342		
7,448,237	6,630,681	None	None
552,340		None	None
1,778,127	1,180,123	None	None
2,641,109	2,260,045		
551,813	511,898		
(24,929)			
(1,804,497)	(1,145,805)		
(566,286)	(566,286)		

C0100

R0570

15,713,242

Calculation of Solvency Capital Requirement		C0100
Total undiversified components	R0110	24,245,936
Diversification	R0060	(9,138,340)
Capital requirement for business operated in accordance with Art. 4 of Directive 2003/41/EC	R0160	
Solvency Capital Requirement excluding capital add-on	R0200	15,107,595
Capital add-ons already set	R0210	
Solvency capital requirement for undertakings under consolidated method	R0220	15,713,242
Other information on SCR		
Amount/Estimate of the overall loss-absorbing capacity of technical provisions	R0300	(8,371,138)
Amount/Estimate of the overall loss-absorbing capacity of deferred taxes	R0310	(1,804,497)
Capital requirement for duration-based equity risk sub-module	R0400	
Total amount of Notional Solvency Capital Requirements for remaining part	R0410	9,080,416
Total amount of Notional Solvency Capital Requirements for ring fenced funds	R0420	2,919,116
Total amount of Notional Solvency Capital Requirements for matching adjustment portfolios	R0430	4,991,647
Diversification effects due to RFF SCR aggregation for article 304	R0440	
Minimum consolidated group solvency capital requirement	R0470	7,311,586
Information on other entities		
Capital requirement for other financial sectors (Non-insurance capital requirements)	R0500	542,752
Capital requirement for other financial sectors (Non-insurance capital requirements) - Credit institutions, investment firms and		
financial institutions, alternative investment funds managers, UCITS management companies	R0510	415,465
Capital requirement for other financial sectors (Non-insurance capital requirements) – Institutions for occupational retirement		
provisions	R0520	127,287
Capital requirement for other financial sectors (Non-insurance capital requirements) – Capital requirement for non-regulated		
entities carrying out financial activities	R0530	
Capital requirement for non-controlled participation requirements	R0540	62,894
Capital requirement for residual undertakings	R0550	

S.32.01.22 Undertakings in the scope of the Group

								Criteria of influence						Inclusion in Group su	the scope of	Group solvency calculation
Country	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
GB	YF0Y5B0IB8SM0ZFG9G81GB00417	SPECIFIC	1-5 Lowndes Square Management Company Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G81FR00629		100 Courcelles	Other	Société par actions simplifiée	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G82GB79487	SPECIFIC	AEP FEEDER FUND V	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB01768		11-12 Hanover Square Nominee 1 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00669		11-12 Hanover Square Nominee 2 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
JE	YF0Y5B0IB8SM0ZFG9G81JE00792		11-12 Hanover Square Unit Trust	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB01767		11-12 Hanover Square LP	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
IE		SPECIFIC	EM LC Gov Bond Index Fund (B14)	Other	Fund	Non-mutual		0.2330	0.2330	0.2330		Significant	0.2330	YES		Method 1: Adjusted equity method
IE	YF0Y5B0IB8SM0ZFG9G82IE59705		Aviva Irl Merrion Multi Asset 50	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00670		130 Fenchurch Street Nominee 1 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00671		130 Fenchurch Street Nominee 2 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB01765		130 Fenchurch Street LP	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G82GB13046		130 Fenchurch Street General Partner Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
JE	YF0Y5B0IB8SM0ZFG9G81JE00794		130 Fenchurch Street Unit Trust	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G82FR52267		Aviva Grandes Marques ISR	Other	Fund	Non-mutual		0.9870	1.0000	0.9870		Dominant	0.9870	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
FR			Croissance PME (FIA / FIPS)	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G82GB42999		BMO Global Total Return Bond (GBP Hdg) Fund	Other	Fund	Non-mutual		0.3370	0.3370	0.3370		Significant	0.3370	YES		Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G82FR28055		UFF Allocation Stratégies A	Other	Fund	Non-mutual		0.7270	1.0000	0.7270		Dominant	0.7270	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G82FR28798		UFF Sélection Alpha A	Other	Fund	Non-mutual		0.9860	1.0000	0.9860		Dominant	0.9860	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G82GB42383		Asl Infrastructure Equity Npv	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
FR	969500E56OUMKWPG8S47	LEI	Europe Israël Croissance	Other	Fund	Non-mutual		0.8500	1.0000	0.8500		Dominant	0.8500	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
FR	96950070I5KU5Y5NNG59	LEI	Aviva Investors Britannia	Other	Fund	Non-mutual		0.9870	1.0000	0.9870		Dominant	0.9870	YES		
FR		LEI	Aviva Multigestion	Other	Fund	Non-mutual		0.9810	1.0000	0.9810		Dominant	0.9810	YES		Method 1: Adjusted equity method
FR	9695002K2J17QGGLMJ71 96950027MC1LF7OZYX70	LEI	Aviva Investors Actions Euro	Other	Fund	Non-mutual		0.9310	1.0000	0.9310		Dominant	0.9310	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
FR		LEI	Aviva Investors Valeurs	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1 0000	YES		
FR	969500EW88SZYGR7QU02 9695003K9MKDD46UI077	LEI	Aviva Investors Furo Credit Bonds 1-3	Other	Fund	Non-mutual		0.9590	1,0000	0.9590		Dominant	0.9590	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
FR	969500QA27CDEOBOWO89	LEI	Aviva Asie	Other	Fund	Non-mutual		0.9980	1.0000	0.9980		Dominant	0.9980	YES		
FR		SPECIFIC	Aviva Interoblig	Other	Fund	Non-mutual		0.9990	1.0000	0.9990		Dominant	0.9990	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G82FR16972 9695008X8RQYBCJSVT47	LEI	Aviva Investors Portefeuille	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		
FR	969500SBXZF5MWMF5A21	LEI	Aviva Investors Alpha Yield	Other	Fund	Non-mutual		0.9620	1.0000	0.9620		Dominant	0.9620	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
FR		LEI	Aviva Rebond	Other	Fund	Non-mutual		0.8240	1.0000	0.8240		Dominant	0.8240	YES		
FR	9695002JQGP79944WB89 969500FF70BP6WNHY845	LEI	Aviva Small & Mid Caps Euro ISR	Other	Fund	Non-mutual		1.0000	1.0000	1.0000	_	Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	2138007BQDBN2IPHX193	LEI	Liontrust Sustainable Future Global Growth Fund	Other	Fund	Non-mutual		0.4470	0.4470	0.4470		Significant	0.4470	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
GB	549300ZM2XGLIO5KMF39	LEI	Aviva Investors UK Listed Equity Income Fund	Other	Fund	Non-mutual		0.4740	2 0000	0.4740		Significant	0.4740	YES		
GB GB	213800C34VK9JUDU6X45	LEI	Liontrust Sustainable Future Managed Fund	Other	Fund	Non-mutual		0.6790	1.0000	0.4740		Dominant	0.4740	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
GB	2138006Y52SGQMA3JH93	LEI	Liontrust Sustainable Future UK Growth Fund	Other	Fund	Non-mutual		0.4740	0.4740	0.4740		Significant	0.4740	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
GB	213800DK5336XGCECH57	LEI	Liontrust Sustainable Future European Growth Fund	Other	Fund	Non-mutual		0.5660	1.0000	0.5660		Dominant	0.5660	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
GB	2138007FBM1RVJIB1S65	LEI	Liontrust Sustainable Future Absolute Growth Fund	Other	Fund	Non-mutual		0.5350	1.0000	0.5350		Dominant	0.5350	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
GB		LEI	Liontrust Sustainable Future Corporate Bond Fund	Other	Fund	Non-mutual		0.3680	0.3680	0.3680		Significant	0.3680	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
LU	YF0Y5B0IB8SM0ZFG9G82LU19154		AVIVA INVESTORS PERPETUAL CAPITAL	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
FR	969500KEDD7I1Y282V05	LEI	Aviva Flexible Emergents	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
FR	969500C2JU1H81FLTD43	LEI	Aviva Performance	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
IE		SPECIFIC	Russell Investment Company plc – Acadian Multi-Asset Absolute Return UCITS	Other	Fund	Non-mutual		0.2790	0.2790	0.2790		Significant	0.2790	YES		Method 1: Adjusted equity method
SA	YF0Y5B0IB8SM0ZFG9G82SA95969	SPECIFIC:	Riyad Al Jarei Fund (SAR)	Other	Fund	Non-mutual		0.2790	0.2790	0.2790		Significant	0.2790	YES		Method 1: Adjusted equity method
LU	YF0Y5B0IB8SM0ZFG9G82LU52991		JPMorgan Funds – USD Money Market VNAV Fund	Other	Fund	Non-mutual		0.2445	0.2445	0.2445		Significant	0.2445	YES		Method 1: Adjusted equity method
FR	969500863CJWBZ9ACK29	LEI	Aviva Actions Croissance	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G82FR19618		Aviva Signatures Europe	Other	Fund	Non-mutual		0.9890	1.0000	0.9890		Dominant	0.9890	YES		Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G82FR18752		Aviva Performance Diversifié	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
LU	YF0Y5B0IB8SM0ZFG9G82LU53779		Invesco Funds – Invesco Emerging Markets Equity Fund	Other	Fund	Non-mutual		0.2841	0.2841	0.2841		Significant	0.2841	YES		Method 1: Adjusted equity method
JE	YF0Y5B0IB8SM0ZFG9G81JE00805		1 Fitzroy Place Jersey Unit Trust	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G82GB70006		1 Liverpool Street General Partner Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G82GB70007		1 Liverpool Street Nominee 1 Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method

\$.32.01.22 Undertakings in the scope of the Group

										Criteria of	influence				the scope of pervision	Group solvency calculation
ountry	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
	YF0Y5B0IB8SM0ZFG9G82GB70008	SPECIFIC	1 Liverpool Street Nominee 2 Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00674	SPECIFIC	2-10 Mortimer Street (GP No 1) Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00675		2-10 Mortimer Street GP Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82GB98556		Slas Axa Private Equity	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82LU28268	_	KMG Sicav – SIF Devere Medical Opportunities Fund	Other	Fund	Non-mutual		0.2000	0.2000	0.2000		Significant	0.2000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00672		20 Gracechurch (General Partner) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81JE00804	SPECIFIC	20 Gracechurch Unit Trust	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	213800XTHGJUU5AUW413	LEI	20 Lowndes Square Management Company Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
		SPECIFIC	Kensington Diversified Growth Fund	Other	Fund	Non-mutual		0.2700	0.2700	0.2700		Significant	0.2700	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82FR65656		Afer Actions Euro ISR	Other	Fund	Non-mutual		1.0000	1.0000	1 0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	969500WGN5VNU9G0L013	LEI	Afer Convertibles	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	9695008VGAF0LUCZV383	LEI	Aviva Actions Convex	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
_			Xtrackers II Eurozone Government Bond 15-30 UCITS ETF	Other				0.2690	0.2690	0.2690		Significant	0.2690	YES		
-	YF0Y5B0IB8SM0ZFG9G82LU21145		Janus Henderson Horizon European Growth Fund		Fund	Non-mutual		0.2690	0.2690	0.3259		Significant	0.3259	YES		Method 1: Adjusted equity metho
	213800FJ6CA2XYR8B223	LEI	·	Other	Fund	Non-mutual		0.3259	0.3259	0.3259		-	0.3259	YES		Method 1: Adjusted equity metho
	5299007N1ILRODYO3P34	LEI	Patriarch Classic B&W Global Freestyle	Other	Fund	Non-mutual						Significant				Method 1: Adjusted equity metho
		LEI	DWS Global Agribusiness	Other	Fund	Non-mutual		0.2020	0.2020	0.2020		Significant	0.2020	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82LU10020		Invesco Funds – Invesco UK Equity Fund	Other	Fund	Non-mutual		0.3643	0.3643	0.3643		Significant	0.3643	YES		Method 1: Adjusted equity metho
	969500J1IQOW60VDQ340	LEI	Aviva Couverture Actions	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	969500IL8II1TTTH5603	LEI	Aviva Investors Euro Aggregate	Other	Fund	Non-mutual		0.7510	1.0000	0.7510		Dominant	0.7510	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82FR45601	SPECIFIC	UFF Oblicontext Moyen Terme A	Other	Fund	Non-mutual		0.9440	1.0000	0.9440		Dominant	0.9440	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G82FR88674	SPECIFIC	Global Allocation M	Other	Fund	Non-mutual		0.8510	1.0000	0.8510		Dominant	0.8510	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G82LU52515	SPECIFIC	AQR Systematic Total Return Fund II	Other	Fund	Non-mutual		0.6250	1.0000	0.6250		Dominant	0.6250	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G82LU84798	SPECIFIC	TIKEHAU SENIOR LOANS III	Other	Fund	Non-mutual		0.2050	0.2050	0.2050		Significant	0.2050	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82FR73201	SPECIFIC	Aviva Actions Europe ISR	Other	Fund	Non-mutual		0.9990	1.0000	0.9990		Dominant	0.9990	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G82IE60613	SPECIFIC	Jpmorgan European Equity FAM Fund	Other	Fund	Non-mutual		0.2800	0.2800	0.2800		Significant	0.2800	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82LU42801	SPECIFIC	AVIVA INVESTORS CELLS FUND	Other	Fund	Non-mutual		0.6470	1.0000	0.6470		Dominant	0.6470	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82IT57617	SPECIFIC	FONDO ARMILLA – FONDO IMMOBILIARE CHIUSO A DISTR	Other	Fund	Non-mutual		0.5630	1.0000	0.5630		Dominant	0.5630	YES		Method 1: Adjusted equity metho
	549300B7755LI35RNG62	LEI	Aviva Investors Investment Solutions – Emerging Markets Debt Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	5493006T4WO3MIWYKV53	LEI	Aviva Investors European Secondary Infrastructure Credit SV S.A	Other	Fund	Non-mutual		0.6670	1.0000	0.6670		Dominant	0.6670	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82LU68236	SPECIFIC	BMO Global Total Return Bond Fund	Other	Fund	Non-mutual		0.6360	1.0000	0.6360		Dominant	0.6360	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82FR60000	SPECIFIC	Aviva Investors Yield Curves Absolute Return	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81JE00803	SPECIFIC	2 Fitzroy Place Jersey Unit Trust	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00678	SPECIFIC	30-31 Golden Square Nominee 1 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00679		30-31 Golden Square Nominee 2 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81JE00798		30-31 Golden Square Unit Trust	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01759		30-31 Golden Square LP	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
	21380016PBQKIEIZDH29	LEI	Legal & General ICAV – L&G World Equity Index Fund	Other	Fund	Non-mutual		0.6400	1.0000	0.6400		Dominant	0.6400	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82GB70009		30 Station Road Nominee 1 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82GB70009	_	30 Station Road Nominee 2 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		
			30 Warwick Street Nominee 1 Limited	Other				0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00676	_	30 Warwick Street Nominee 1 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00677	_		Other	Fund	Non-mutual			1.0000				0.5000			Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01756		30 Warwick Street LP	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81JE00799		30 Warwick Street Unit Trust	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G82FR19311	_	Rendement Diversifié M	Other	Fund	Non-mutual		0.9640	1.0000	0.9640		Dominant	0.9640	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G82LU10602		Invesco Funds – Invesco US Equity Fund	Other	Fund	Non-mutual		0.4210	0.4210	0.4210		Significant	0.4210	YES		Method 1: Adjusted equity method
	969500I18NMAQRLCZ492	LEI	Afer Avenir Senior	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82FR99363	SPECIFIC	Aviva Monétaire ISR	Other	Fund	Non-mutual		0.9870	1.0000	0.9870		Dominant	0.9870	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82FR22004	SPECIFIC	Aviva Structure Index 1	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	9695001T509V0QGEBS32	LEI	Aviva Perspective 2021-2025	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	969500B8KMIRZU2F0685	LEI	Aviva Perspective 2026-2030	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho

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										Criteria of	influence			Inclusion in Group su	the scope of pervision	Group solvency calculation
Country	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting rights	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
FR	969500Z1IL4VR1P3IB95	LEI	Aviva Perspective 2031-2035	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
FR	969500FWVXJ6ALY13V46	LEI	Aviva Perspective 2036-2040	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
LU	YF0Y5B0IB8SM0ZFG9G82LU35056	SPECIFIC	VAM Managed Funds (Lux) – VAM Balanced Fund	Other	Fund	Non-mutual		0.5300	1.0000	0.5300		Dominant	0.5300	YES		Method 1: Adjusted equity method
FR	969500FK8IU2YBDHUZ67	LEI	Afer Multi Foncier	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	213800FJL43GP6KYMU74	LEI	Liontrust UK Ethical Fund	Other	Fund	Non-mutual		0.6890	1.0000	0.6890		Dominant	0.6890	YES		Method 1: Adjusted equity method
FR	969500RH12ZFZ1SZL824	LEI	Afer Premium	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
LU	5493008PXE8I86GN2Y65	LEI	Aviva Investors Sustainable Income & Growth Fund	Other	Fund	Non-mutual		0.9798	1.0000	0.9798		Dominant	0.9798	YES		Method 1: Adjusted equity method
IT	YF0Y5B0IB8SM0ZFG9G82IT53151	SPECIFIC	AVIVA IMMOBILIARE	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
LU	YF0Y5B0IB8SM0ZFG9G82LU73888	SPECIFIC	BMO European Growth & Income Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
LU	YF0Y5B0IB8SM0ZFG9G82LU65106	SPECIFIC	NEGENTROPY - DEBT SELECT FUND	Other	Fund	Non-mutual		0.3182	0.3182	0.3182		Significant	0.3182	YES		Method 1: Adjusted equity method
LU	YF0Y5B0IB8SM0ZFG9G82LU37582	SPECIFIC	BMO Diversified Growth Fund	Other	Fund	Non-mutual		0.9000	1.0000	0.9000		Dominant	0.9000	YES		Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G82FR60211	SPECIFIC	Diapason 1	Other	Fund	Non-mutual		0.8360	1.0000	0.8360		Dominant	0.8360	YES		Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G82FR18137	SPECIFIC	Aviva Investors Euro Credit Bonds ISR	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
SA	YF0Y5B0IB8SM0ZFG9G82SA95855	SPECIFIC	Riyad Al Mutawazen Sharia Fund (SAR)	Other	Fund	Non-mutual		0.8060	1.0000	0.8060		Dominant	0.8060	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00419	SPECIFIC	41-42 Lowndes Square Management Company Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
LU	YF0Y5B0IB8SM0ZFG9G82LU87750	SPECIFIC	Nordea 1 – Swedish Bond Fund	Other	Fund	Non-mutual		0.3200	0.3200	0.3200		Significant	0.3200	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G82GB85826	SPECIFIC	Fppe Private Equity	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
IE	YF0Y5B0IB8SM0ZFG9G82IE13350		BlackRock Index Selection Fund Market Advantage Strategy	Other	Fund	Non-mutual		0.2680	0.2680	0.2680		Significant	0.2680	YES		Method 1: Adjusted equity method
E	YF0Y5B0IB8SM0ZFG9G82IE93645	SPECIFIC	Barings International Umbrella Fund – Barings International Bond Fund	Other	Fund	Non-mutual		0.2580	0.2580	0.2580		Significant	0.2580	YES		Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G82FR28490	SPECIFIC	Aviva Actions S2	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00420	SPECIFIC	43 Lowndes Square Management Company Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00421	SPECIFIC	44-49 Lowndes Square Management Company Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
E	YF0Y5B0IB8SM0ZFG9G82IE45439	SPECIFIC	Vontobel Global Equity FAM Fd	Other	Fund	Non-mutual		0.2210	0.2210	0.2210		Significant	0.2210	YES		Method 1: Adjusted equity method
R	YF0Y5B0IB8SM0ZFG9G82FR54532	SPECIFIC	Faraday	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
E	YF0Y5B0IB8SM0ZFG9G82IE43561	SPECIFIC	CGWM Affinity Fund	Other	Fund	Non-mutual		0.3620	0.3620	0.3620		Significant	0.3620	YES		Method 1: Adjusted equity method
LU	YF0Y5B0IB8SM0ZFG9G82LU19351	SPECIFIC	Nordea 1 – Swedish Short-Term Bond Fund	Other	Fund	Non-mutual		0.3165	0.3165	0.3165		Significant	0.3165	YES		Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G82FR22421	SPECIFIC	UFF Privilège A	Other	Fund	Non-mutual		0.6920	1.0000	0.6920		Dominant	0.6920	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G82GB55925	SPECIFIC	LF Bentley Global Growth Fund	Other	Fund	Non-mutual		0.5800	1.0000	0.5800		Dominant	0.5800	YES		Method 1: Adjusted equity method
JE	YF0Y5B0IB8SM0ZFG9G82JE38489	SPECIFIC	40 SPRING GARDENS UNIT TRUST-CLOSED ENDED FUND	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
LU	YF0Y5B0IB8SM0ZFG9G82LU96457	SPECIFIC	Momentum Global Funds Harmony Portfolios Asian Growth Fund	Other	Fund	Non-mutual		0.2025	0.2025	0.2025		Significant	0.2025	YES		Method 1: Adjusted equity method
E	YF0Y5B0IB8SM0ZFG9G82IE81721	SPECIFIC	Mercer Multi Asset High Growth Fund	Other	Fund	Non-mutual		0.2400	0.2400	0.2400		Significant	0.2400	YES		Method 1: Adjusted equity method
БB	YF0Y5B0IB8SM0ZFG9G82GB70011	SPECIFIC	50-60 Station Road Nominee 1 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
БB	YF0Y5B0IB8SM0ZFG9G82GB70012	SPECIFIC	50-60 Station Road Nominee 2 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
_U	YF0Y5B0IB8SM0ZFG9G82LU60127	SPECIFIC	Invesco Funds - Invesco Global Opportunities Fund	Other	Fund	Non-mutual		0.2978	0.2978	0.2978		Significant	0.2978	YES		Method 1: Adjusted equity method
R	YF0Y5B0IB8SM0ZFG9G82FR46755	SPECIFIC	FPE Aviva Investors Euro Corporate Senior Debts II	Other	Fund	Non-mutual		0.2420	0.2420	0.2420		Significant	0.2420	YES		Method 1: Adjusted equity method
-R	YF0Y5B0IB8SM0ZFG9G82FR80262	SPECIFIC	Aviva Investors Reference Diversifié	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
E	YF0Y5B0IB8SM0ZFG9G82IE84341	SPECIFIC	Mercer Multi Asset Growth Fund	Other	Fund	Non-mutual		0.3290	0.3290	0.3290		Significant	0.3290	YES		Method 1: Adjusted equity method
E	YF0Y5B0IB8SM0ZFG9G82IE53772	SPECIFIC	CALM Eurozone Equity Sub Fund	Other	Fund	Non-mutual		0.9880	1.0000	0.9880		Dominant	0.9880	YES		Method 1: Adjusted equity method
R	YF0Y5B0IB8SM0ZFG9G82FR19799		Aviva Investors Euro Commercial Real Estate Debt II	Other	Fund	Non-mutual		0.3440	0.3440	0.3440		Significant	0.3440	YES		Method 1: Adjusted equity method
-R	YF0Y5B0IB8SM0ZFG9G82FR19813		Aviva Actions Euro	Other	Fund	Non-mutual		0.9970	1.0000	0.9970		Dominant	0.9970	YES		Method 1: Adjusted equity method
E		SPECIFIC	CGWM Diversity Fund	Other	Fund	Non-mutual		0.2540	0.2540	0.2540		Significant	0.2540	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G82GB52435	SPECIFIC	Cambridge Research + Innovatio Ord Shares	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3B	YF0Y5B0IB8SM0ZFG9G82GB21679		Baillie Gifford Investment Funds II ICVC-Baillie Gifford UK Equity Core Fund	Other	Fund	Non-mutual		0.2030	0.2030	0.2030		Significant	0.2030	YES		Method 1: Adjusted equity method
PL	YF0Y5B0IB8SM0ZFG9G82PL79644	SPECIFIC	Aviva Investors Sfio Dużych Spółek	Other	Fund	Non-mutual		0.9970	1.0000	0.9970		Dominant	0.9970	YES		Method 1: Adjusted equity method
3B	YF0Y5B0IB8SM0ZFG9G81GB00422	SPECIFIC	6-10 Lowndes Square Management Company Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
IF	YF0Y5B0IB8SM0ZFG9G82IE68517	SPECIFIC	Aviva Irl Merrion Exempt Trust – Managed Fund	Other	Fund	Non-mutual		0.5990	1.0000	0.5990		Dominant	0.5990	YES		Method 1: Adjusted equity method

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									Criteria of influence				Group st	pervision	Group solvency calculation	
ountry	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	<b>Legal form</b>	Category (mutual/	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting	Other	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
010	YF0Y5B0IB8SM0ZFG9G82SA45814		Riyad Al Shujia'a Sharia Fund (SAR)	Other	Fund	Non-mutual	00000	0.9060	1.0000	0.9060	COLIO	Dominant	0.9060	YES	00250	Method 1: Adjusted equity metho
	YE0Y5B0IB8SM07FG9G82IF11526	SPECIFIC	ANNALY CREDIT OPPORTUNITIES IRELAND ICAV	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82FR20301		Aviva La Fabrique Impact ISR	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82IE47507	SPECIFIC	BMO Multi-Strategy Global Equity Fund	Other	Fund	Non-mutual		0.9600	1.0000	0.9600		Dominant	0.9600	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82FR79566	SPECIFIC	Aviva Croissance Durable ISR	Other	Fund	Non-mutual		0.9960	1.0000	0.9960		Dominant	0.9960	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82IE90917		Nordea Stable Performance FAM Fd	Other	Fund	Non-mutual		0.2100	0.2100	0.2100		Significant	0.2100	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82FR67201		UFF Actions France A	Other	Fund	Non-mutual		0.9930	1.0000	0.9930		Dominant	0.9930	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82MT37075		HERAKLES II	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82GB90372		Axa Sun Life Private	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82FR90597		Pretons Ensemble 2	Other	Fund	Non-mutual		0.3000	0.3000	0.3000		Significant	0.3000	YES		Method 1: Adjusted equity meth
		SPECIFIC	SPDR® FTSE EPRA Europe ex UK Real Estate UCITS ETF	Other	Fund	Non-mutual		0.2420	0.2420	0.2420		Significant	0.2420	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82GB30676	SPECIFIC	LF Bentley Sterling Balanced Fund	Other	Fund	Non-mutual		0.3290	0.3290	0.3290		Significant	0.3290	YES		Method 1: Adjusted equity meth
		SPECIFIC	Eurizon Flexible Equity Strategy FAM Fd	Other	Fund	Non-mutual		0.2640	0.2640	0.2640		Significant	0.2640	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82FR60367		Aviva Investors Alpha Taux A	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G82SA25528		Riyad Al Jarei Sharia Fund (SAR)	Other	Fund	Non-mutual		0.6720	1.0000	0.6720		Dominant	0.6720	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82IE88546	SPECIFIC	Aviva Irl Merrion Multi Asset 30	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82LU63856		Invesco Funds – Invesco Global Health Care Fund	Other	Fund	Non-mutual		0.3554	0.3554	0.3554		Significant	0.3554	YES		Method 1: Adjusted equity meth
		SPECIFIC	GAM Star Fund plc – GAM Star Growth	Other	Fund	Non-mutual		0.2300	0.2300	0.2300		Significant	0.2300	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82LU15408		The Jupiter Global Fund – Jupiter Financial	Other	Fund	Non-mutual		0.2670	0.2670	0.2670		Significant	0.2670	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82FR15493	SPECIFIC	Aviva Structure Index 2	Other	Fund	Non-mutual		1 0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82IE89298		Blackrock Emerging markets Bond Hard Currency	Other	Fund	Non-mutual		0.2280	0.2280	0.2280		Significant	0.2280	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82GB77571	SPECIFIC	Slas Venture Capital Ye Cash Ordinary Shares	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82IE99875		CGWM Opportunity Fund	Other	Fund	Non-mutual		0.4530	0.4530	0.4530		Significant	0.4530	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82GB39265		STATION ROAD CAMBRIDGE LP NPV	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82FR63876	SPECIFIC	Pretons Ensemble	Other	Fund	Non-mutual		0.4980	0.4980	0.4980		Significant	0.4980	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82GB43265	SPECIFIC	30 STATION ROAD UNIT TRUST – CLOSED ENDED FUND	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82LU15895	SPECIFIC	KMG Sicav - SIF Devere Global Frontier Markets Fund	Other	Fund	Non-mutual		0.2259	0.2259	0.2259		Significant	0.2259	YES		Method 1: Adjusted equity meth-
	YF0Y5B0IB8SM0ZFG9G82FR22352	SPECIFIC	Aviva Capital Planète	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82GB96467	SPECIFIC	Undrly Aguila Cnt CcyH Glb Eq108010 2L	Other	Fund	Non-mutual		0.7190	1.0000	0.7190		Dominant	0.7190	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82FR31450	SPECIFIC	UFF Global Allocation A	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82GB33402		BMO Emerging Markets Equity Fund	Other	Fund	Non-mutual		0.3510	0.3510	0.3510		Significant	0.3510	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82FR80263	SPECIFIC	Aviva Investors Euro Crédit 1-3 Hedged Duration	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82SA63469		Riyad Al Mutahafedh Sharia Fund (SAR)	Other	Fund	Non-mutual		0.8920	1.0000	0.8920		Dominant	0.8920	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82SA87836		Riyad Al Shuja'a Fund (SAR)	Other	Fund	Non-mutual		0.2230	0.2230	0.2230		Significant	0.2230	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82FR80142		Aviva Repo	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82FR99596		UFF Allocation Optimum	Other	Fund	Non-mutual		0.9790	1.0000	0.9790		Dominant	0.9790	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82FR13942		UFF Global Réactif A	Other	Fund	Non-mutual		0.9470	1.0000	0.9470		Dominant	0.9470	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82IE55725		Mercer Multi Asset Defensive Fund	Other	Fund	Non-mutual		0.3720	0.3720	0.3720		Significant	0.3720	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82GG74419		Marlborough International Fund PCC Limited re Marlborough Balanced Cell	Other	Fund	Non-mutual		0.2730	0.2730	0.2730		Significant	0.2730	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82PL71979	SPECIFIC	Aviva Sfio Subfundusz Aviva Oszczędnościowy	Other	Fund	Non-mutual	İ	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82IE23614		Mercer Multi Asset Moderate Growth Fund	Other	Fund	Non-mutual	İ	0.4670	0.4670	0.4670		Significant	0.4670	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82FR46112		Aviva Valorisation Opportunités	Other	Fund	Non-mutual		0.9950	1.0000	0.9950		Dominant	0.9950	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82GB20491		BMO MM Navigator Balanced Fund	Other	Fund	Non-mutual		0.2060	0.2060	0.2060		Significant	0.2060	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82FR65670		Aviva Investors Japon ISR	Other	Fund	Non-mutual		0.9450	1.0000	0.9450		Dominant	0.9450	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82LU74112		PRAMERICA PAN-EUROPEAN REAL ESTATE FUND II	Other	Fund	Non-mutual		0.2541	0.2541	0.2541		Significant	0.2541	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82FR77859		Aviva Structure Index 5	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
		SPECIFIC	Kensington Diversified Balanced Fund	Other	Fund	Non-mutual		0.2040	0.2040	0.2040		Significant	0.2040	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82SG57948		Nikko AM Global Green Bond Fund	Other	Fund	Non-mutual		0.4510	0.4510	0.2040		Significant	0.4510	YES		Method 1: Adjusted equity method Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81CA00002		9543864 Canada Inc.	Insurance holding company as defined in Article 212(1) (f) of Directive 2009/138/EC	Private Corporation	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G82FR80368		urrall: a.s.	Other	Fund	Non-mutual		0.8640	1.0000	0.8640		Dominant	0.8640	YES		Method 1: Adjusted equity meth

Inclusion in the scope of

S.32.01.22 Undertakings in the scope of the Group

								Criteria of influence							the scope of upervision	Group solvency calculation
Country	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/	Supervisory Authority	% capital	% used for the establishment of consolidated accounts	% voting	Other	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
SB	YF0Y5B0IB8SM0ZFG9G82GB36033		DIF INFRASTRUCTURE III OFF-SHORE OPEN ENDED	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
R	YF0Y5B0IB8SM0ZFG9G82FR13616		FPE Aviva Small and Midcap (ASAM)	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
BB	YF0Y5B0IB8SM0ZFG9G82GB24642		GS MEZZANINE PARTNERS V OFFSHORE LP	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
R	YF0Y5B0IB8SM0ZFG9G82FR30475	SPECIFIC	Selectus	Other	Fund	Non-mutual		0.9700	1.0000	0.9700		Dominant	0.9700	YES		Method 1: Adjusted equity method
.U	YF0Y5B0IB8SM0ZFG9G82LU91875	SPECIFIC	Momentum Global Funds Harmony Portfolios Euro Diversified Fund	Other	Fund	Non-mutual		0.2419	0.2419	0.2419		Significant	0.2419	YES		Method 1: Adjusted equity method
В	YF0Y5B0IB8SM0ZFG9G82GB77674	SPECIFIC	EIF USPF IV BLOCKER FUND CLOSED	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
R	YF0Y5B0IB8SM0ZFG9G82FR51826		UFF Grandes Marques A	Other	Fund	Non-mutual		0.9930	1.0000	0.9930		Dominant	0.9930	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G82IE18226	SPECIFIC	KBI Institutional Fund ICAV – KBI Institutional Eurozone Equity Fund	Other	Fund	Non-mutual		0.3660	0.3660	0.3660		Significant	0.3660	YES		Method 1: Adjusted equity method
В	YF0Y5B0IB8SM0ZFG9G81GB01726	SPECIFIC	Axcess 10 Management Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
PL	YF0Y5B0IB8SM0ZFG9G81PL00148	SPECIFIC	AdRate Sp. z o.o.	Other	SPÓŁKA Z OGRANICZONA ODPOWIEDZIALNOSCIA (Sp z o.o.)	Non-mutual		0.9000	1.0000	0.9000		Dominant	0.9000	YES		Method 1: Adjusted equity method
R	YF0Y5B0IB8SM0ZFG9G83FR00627	SPECIFIC	Aviva Développement Vie	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Société Anonyme	Non-mutual		0.9992	1.0000	0.9992		Dominant	1.0000	YES		Method 1: Full consolidation
GB	2138007H7PCU1UHWD993	LEI	Friends AELRIS Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00056	SPECIFIC	Friends AEL Trustees Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3B	YF0Y5B0IB8SM0ZFG9G81GB00132	SPECIFIC	Sesame Regulatory Services Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
G.	213800QM4GNV91TLTF90	LEI	Aviva Financial Advisers Pte. Ltd	Credit institution, investment firm and financial institution	Private Company	Non-mutual	Monetary Authority of Singapore	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
R	969500KCWANZE7D8Y311	LEI	Afer-Flore	Other	Fund	Non-mutual		0.9770	1.0000	0.9770		Dominant	0.9770	YES		Method 1: Adjusted equity method
R	969500QJIZPXEBUVOA14	LEI	Afer Actions Amérique	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
R	969500QJ2AOEWXGLNV83	LEI	Afer Actions Monde	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
R	969500PRTGO5F6GJ3N86	LEI	Afer Diversifié Durable	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
R	YF0Y5B0IB8SM0ZFG9G81FR00567	SPECIFIC	AFER Immo 2	Other	Société civile immobilière (SCI)	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
R	YF0Y5B0IB8SM0ZFG9G81FR00550	SPECIFIC	AFER Immo	Other	Société civile immobilière (SCI)	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
R	9695003DK9KJO0Y5ZW31	LEI	Afer Marchés Emergents	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
R	9695002K1930TKB4IK13	LEI	Afer Patrimoine	Other	Fund	Non-mutual		0.9990	1.0000	0.9990		Dominant	0.9990	YES		Method 1: Adjusted equity method
R	YF0Y5B0IB8SM0ZFG9G81FR00356	SPECIFIC	AFER – SFER	Other	Société d'Investissement À Capital Variable (SICAV)	Non-mutual	Autorité des marchés financiers	0.9995	1.0000	0.9995		Dominant	0.9995	YES		Method 1: Adjusted equity method
J	YF0Y5B0IB8SM0ZFG9G81LU00634	SPECIFIC	AFRP S.à r.l.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81IE00214	SPECIFIC	AG10 Currency Fund	Other	Fund	Non-mutual		0.9520	1.0000	0.9520		Dominant	0.9520	YES		Method 1: Adjusted equity method
R	YF0Y5B0IB8SM0ZFG9G81FR00029	SPECIFIC	Agents 3A	Other	Société en nom collectif (SNC)	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
1	213800ONOB13621WL113	LEI	A.G.S. Customer Services (India) Private Limited	Other	Private Company	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
S	YF0Y5B0IB8SM0ZFG9G81ES00027		Ahorro Andaluz, S.A	Other	Sociedad anónima (SA)	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
iB	YF0Y5B0IB8SM0ZFG9G82GB70013		Aviva Investors 40 Spring Gardens (General Partner) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
U	YF0Y5B0IB8SM0ZFG9G87FR00624		Aviva Investors Alternatives, FCP-RAIF	Other	Fund	Non-mutual		0.5700	1.0000	0.5700		Dominant	0.5700	YES		Method 1: Adjusted equity method
U	YF0Y5B0IB8SM0ZFG9G99LU00777	SPECIFIC	Aviva Investors Alternative Income Solutions Investments S.A.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
Z	YF0Y5B0IB8SM0ZFG9G81CZ00519		AIEREF Renewable Energy s.r.o.	Other	Fund	Non-mutual		0.9900	1.0000	0.9900		Dominant	0.9900	YES		Method 1: Adjusted equity method
U	YF0Y5B0IB8SM0ZFG9G81LU00591		AIEREF Holding 1 S.à r.l.	Other	Fund	Non-mutual		0.4450	0.4450	0.4450		Significant	0.4450	YES		Method 1: Adjusted equity method
.U	YF0Y5B0IB8SM0ZFG9G81LU00592		AIEREF Holding 2 S.à r.l.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
.U	2138001MKU8IVU7O3771	LEI	Aviva Investors Luxembourg Services S.à r.l.	Credit institution, investment firm and financial institution	Société à Responsabilité Limitée (SARL)	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
IS	YF0Y5B0IB8SM0ZFG9G81US00103		AI-RECAP GP I, LLC	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
_U	YF0Y5B0IB8SM0ZFG9G81LU00001		Aviva Investors Alternative Income Solutions General Partner S.à r.l.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB01716		Al Special PFI SPV Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
5B	YF0Y5B0IB8SM0ZFG9G81GB01079	SPECIFIC	Boston Biomass Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method

Inclusion in the scope of

S.32.01.22 Undertakings in the scope of the Group

										Criteria of i	nfluence			Group su		Group solvency calculation
		Type of code of the ID of the				Category (mutual/		% capital	% used for the establishment of consolidated	% voting	Other	Level of	Proportional share used for group solvency		Date of decision if art. 214 is	Method used and under method 1,
0010	Identification code of the undertaking	undertaking C0030	Legal Name of the undertaking	Type of undertaking	Legal form C0060	non mutual)	Supervisory Authority	consol	accounts C0190	rights C0200	criteria C0210	CO220	calculation	YES/NO C0240	applied C0250	treatment of the undertaking
010	VF0Y5B0IB8SM0ZFG9G81GB00684		C0040 Anesco Mid Devon Limited	C0050 Other	C0060 Fund	Non-mutual	C0080	1.0000	1.0000	1.0000	C0210	Dominant	C0230 1.0000	YES	C0250	
			Anesco South West Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00685 635400EHJSFX91LJSP24	LEI	Area Life International Assurance DAC	Life insurance undertaking	Designated Activity Company	Non-mutual	Central Bank	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method Method 1: Full consolidation
			AVIVA RETRAITE PROFESSIONNELLE	Institution for occupational	(Ltd. by Shares) (DAC)	Non-mutual	of Ireland Autorité	0.9999	1.0000	0.9999		Dominant	0.9999	YES		
	213800LCUDBDIMO5L142	LEI	AVIVA RETRAITE PROFESSIONNELLE	retirement provision	Société Anonyme	Non-mutual	de Contrôle Prudentiel et de Resolution	0.9999	1.0000	0.9999				1E2		Method 1: Sectoral rules
	YF0Y5B0IB8SM0ZFG9G81GB11015	SPECIFIC	Artemis UK Special Situations Fund	Other	Fund	Non-mutual		0.2450	0.2450	0.2450		Significant	0.2450	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01702	SPECIFIC	Ascot Real Estate Investments LP	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
3	YF0Y5B0IB8SM0ZFG9G81GB01703	SPECIFIC	Ascot Real Estate Investments GP LLP	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81DE00543	SPECIFIC	ASF German Retail GmbH & Co. KG	Other	Fund	Non-mutual		0.9836	1.0000	0.9836		Dominant	0.9836	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81FF00001	SPECIFIC	Ashtown Management Company Limited	Other	Private Company Limited by Shares (LTD)	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
3		LEI	Aspire Financial Management Limited	Non-regulated undertaking carrying out financial activities as defined in Article 1 (52) of Delegated Regulation (EU) 20		Non-mutual		0.4652	0.4652	0.4652		Significant		YES		Method 1: Adjusted equity metho
3	YF0Y5B0IB8SM0ZFG9G81GB01725	SPECIFIC	Atlas Park Management Company Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity methor
1	969500BX2FUGUS62C817	LEI	Aviva Assurances, Société Anonyme d'Assurances Incendie, Accidents et Risques Divers	Non life insurance undertaking	Société Anonyme	Non-mutual	Autorité de Contrôle Prudentiel et de Resolution	0.9999	1.0000	0.9999		Dominant	1.0000	YES		Method 1: Full consolidation
I	YF0Y5B0IB8SM0ZFG9G83GB41056	SPECIFIC	Aviva Investors Global Emerging Markets Equity Unconstrained Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	259400LG26TQHC3JL185	LEI	Aviva Investors Poland Towarzystwo Funduszy Inwestycyjnych S.A.	Credit institution, investment firm and financial institution	SPÓŁKA Z OGRANICZONA ODPOWIEDZIALNOSCIA (Sp z o.o.)	Non-mutual	Polish Financial Supervision Authority	0.9510	1.0000	0.9510		Dominant	0.9510	YES		Method 1: Sectoral rules
	YF0Y5B0IB8SM0ZFG9G81GB00739	SPECIFIC	Aviva Life Investments International (General Partner) Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	549300D1GVBLNBQJNP96	LEI	Aviva Ltd	Composite undertaking	Public Company	Non-mutual	Central Provident Fund Board	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	969500YRACYNYTB0ME36	LEI	Aviva Actions France	Other	Fund	Non-mutual		0.9970	1.0000	0.9970		Dominant	0.9970	YES		Method 1: Adjusted equity metho
3	YF0Y5B0IB8SM0ZFG9G81GB00091	SPECIFIC	Aviva Brands Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	213800C2RVHC2P4IU323	LEI	Aviva Canada Inc.	Insurance holding company as defined in Article 212(1) (f) of Directive 2009/138/EC	Private Corporation	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81GB07139	SPECIFIC	Aviva Conviction Patrimoine	Other	Fund	Non-mutual		0.9990	1.0000	0.9990		Dominant	0.9990	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81FR00358	SPECIFIC	Aviva Convertibles	Other	Société d'Investissement À Capital Variable (SICAV)	Non-mutual	Autorité des marchés financiers	0.9751	1.0000	0.9751		Dominant	0.9751	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB07140	SPECIFIC	Aviva Conviction Opportunités	Other	Fund	Non-mutual		0.9980	1.0000	0.9980		Dominant	0.9980	YES		Method 1: Adjusted equity metho
	9695004XWE0B281KQB94	LEI	Aviva Développement	Other	Société d'Investissement À Capital Variable (SICAV)	Non-mutual	Autorité des marchés financiers	0.9917	1.0000	0.9917		Dominant	0.9917	YES		Method 1: Adjusted equity metho
	9695000JRD9HQPEA8N66	LEI	Aviva Diversifié	Other	Société d'Investissement À Capital Variable (SICAV)	Non-mutual	Autorité des marchés financiers	0.9485	1.0000	0.9485		Dominant	0.9485	YES		Method 1: Adjusted equity metho
		SPECIFIC	Aviva DC Trustee Company Ireland Designated Activity Company	Other	Private Company Limited by Shares (LTD)	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
		LEI	Aviva Europe	Other	Société d'Investissement À Capital Variable (SICAV)	Non-mutual	Autorité des marchés financiers	0.9632	1.0000	0.9632		Dominant	0.9632	YES		Method 1: Adjusted equity metho
	213800WT7OJCDIGDOW51	LEI	Aviva France	Insurance holding company as defined in Article 212(1) (f) of Directive 2009/138/EC	Société Anonyme	Non-mutual	Autorité de Contrôle Prudentiel et de Resolution	0.9999	1.0000	0.9999		Dominant	1.0000	YES		Method 1: Full consolidation
	969500BUXCF6B3LXMC88	LEI	Aviva France Opportunités	Other	Fund	Non-mutual		0.9910	1.0000	0.9910		Dominant	0.9910	YES		Method 1: Adjusted equity metho
	213800RWW9J19QWEKX18	LEI	Aviva Global Services (Management Services) Private Ltd.	Other	Private Company	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81LU00598	SPECIFIC	Aviva Investors Polish Retail S.à r.l.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81LU00595	SPECIFIC	Aviva Investors EBC S.à r.l.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81FR00801		Aviva Investors (FP) LP	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81LU00971		Aviva Investors Emerging Markets Equity Small Cap Fund	Other	Fund	Non-mutual		0.8516	1.0000	0.8516		Dominant	0.8516	YES		Method 1: Adjusted equity meth
	969500853VBCB6Y9QY94	LEI	Aviva Investors Sélection	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01704	SPECIFIC	Aviva Infrastructure Debt Europe I S.A.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
3	YF0Y5B0IB8SM0ZFG9G81GB01705		Stichting Aviva Infrastructure Debt Europe I	Other	Fund	Non-mutual		1.0000	1 0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho

S.32.01.22 Undertakings in the scope of the Group

								Criteria of influence						Inclusion in Group su		Group solvency calculation
ountry	Identification code of the undertaking	Type of code of the ID of the undertaking	Lezal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/	Supervisory Authority	% capital	% used for the establishment of consolidated accounts	% voting rights	Other	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1,
0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
3	YF0Y5B0IB8SM0ZFG9G81GB01750		Aviva Investors EBC Limited Partnership	Other	Fund	Non-mutual	C0000	1.0000	1.0000	1.0000	CUZIU	Dominant	1.0000	YES	C0230	Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB01749		Aviva Investors Polish Retail Limited Partnership	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G99LU00784		Aviva Investors Private Equity Programme	Other	Fund	Non-mutual		0.3983	0.3983	0.3983	_	Significant	0.3983	YES		Method 1: Adjusted equity method
			2008 Partnership									ŭ				
1	YF0Y5B0IB8SM0ZFG9G81LU00981		Aviva Investors Global Convertibles Fund	Other	Fund	Non-mutual		0.4058	0.4058	0.4058		Significant	0.4058	YES		Method 1: Adjusted equity method
	969500DPPVRQGN5CBM16	LEI	Aviva Investors Valeurs Europe	Other	Fund	Non-mutual		0.8000	1.0000	0.8000	_	Dominant	0.8000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00982		Aviva Investors Global Emerging Markets Index Fund	Other	Fund	Non-mutual		0.8966	1.0000	0.8966		Dominant	0.8966	YES		Method 1: Adjusted equity method
J	YF0Y5B0IB8SM0ZFG9G83GB41057		Aviva Investors Global Equity Unconstrained Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	815600DD71582D382402	LEI	Aviva Italia Holding S.p.A	Insurance holding company as defined in Article 212(1) (f) of Directive 2009/138/EC	Societá per Azioni (SpA)	Non-mutual	Commissione Nazionale per le Societa e la Borsa	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	969500XIVANCK43KR155	LEI	Aviva Investors Conviction	Other	Fund	Non-mutual		0.9800	1.0000	0.9800		Dominant	0.9800	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00719	SPECIFIC	Aviva Investors Ground Rent GP Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00720	SPECIFIC	Aviva Investors Ground Rent Holdco Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00721	SPECIFIC	Aviva Investors Infrastructure GP Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00724	SPECIFIC	Aviva Investors Polish Retail GP Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00727	SPECIFIC	Aviva Investors Property Fund Management Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00728	SPECIFIC	Aviva Investors Real Estate Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00729	SPECIFIC	Aviva Investors Realm Energy Centres GP Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00735	SPECIFIC	Aviva Investors Social Housing GP Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB01715		Aviva Investors Social Housing Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00737		Aviva Investors UK CRESD GP Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00697		Aviva Investors (FP) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00699		Aviva Investors (GP) Scotland Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00700		Aviva Investors Commercial Assets GP Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00701		Aviva Investors EBC GP Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000	_	Dominant	1.0000	YES		Method 1: Adjusted equity method
}	YF0Y5B0IB8SM0ZFG9G81GB00701		Aviva Investors Energy Centre No.1 GP Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000	-	Dominant	1.0000	YES		Method 1: Adjusted equity method
,	YF0Y5B0IB8SM0ZFG9G81GB00703		Aviva Investors Jersey Unit Trusts	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
	VEOVE DOIDOCMOZECO COM LUCOCEZ	CDECIFIC	Management Limited	Other	E d	Name and the set		0.9881	1.0000	0.0001		Descions	0.5000	YES		Marker of t. Adirose of a code occupied
	YF0Y5B0IB8SM0ZFG9G81LU00957		Aviva Investors Asian Equity Income Fund	Other	Fund	Non-mutual			1.0000	0.9881		Dominant	0.5000	YES		Method 1: Adjusted equity method
,	YF0Y5B0IB8SM0ZFG9G81LU00974		Aviva Investors European Equity Fund		Fund	Non-mutual		0.6719	1.0000		-	Dominant				Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00975		Aviva Investors European Equity Income Fund	Other	Fund	Non-mutual		0.9953	1.0000	0.9953	-	Dominant	0.9953	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00977		Aviva Investors European Real Estate Securities Fund		Fund	Non-mutual		0.6629	1.0000	0.6629	-	Dominant	0.6629	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00980		Aviva Investors Global Convertibles Absolute Return Fund	Other	Fund	Non-mutual		0.7758	1.0000	0.7758		Dominant	0.7758	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00983		Aviva Investors Global High Yield Bond Fund	Other	Fund	Non-mutual		0.6824	1.0000	0.6824		Dominant	0.6824	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G99LU00785	SPECIFIC	Aviva Investors Global Investment Grade Corporate Bond Fund	Other	Fund	Non-mutual		0.8752	1.0000	0.8752		Dominant	0.8752	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00986	SPECIFIC	Aviva Investors Multi-Strategy Target Income Fund – Sicav	Other	Fund	Non-mutual		0.7457	1.0000	0.7457		Dominant	0.7457	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00988	SPECIFIC	Aviva Investors Short Duration Global High Yield Bond Fund	Other	Fund	Non-mutual		0.4119	2.0000	0.4119		Significant	0.4119	YES		Method 1: Adjusted equity method
	635400WK8B3C88WECB10	LEI	Aviva Investors Sterling Government Liquidity Fund	Other	Fund	Non-mutual		0.9400	1.0000	0.9400		Dominant	0.9400	YES		Method 1: Adjusted equity method
	635400LGLXZG1XJEPL62	LEI	Aviva Investors Sterling Liquidity Fund	Other	Fund	Non-mutual		0.7700	1.0000	0.7700		Dominant	0.7700	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00967	SPECIFIC	Aviva Investors Emerging Markets Bond Fund	Other	Fund	Non-mutual		0.8251	1.0000	0.8251		Dominant	0.8251	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00970	SPECIFIC	Aviva Investors Emerging Markets Equity Income Fund	Other	Fund	Non-mutual		0.9962	1.0000	0.9962		Dominant	0.9962	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00972	SPECIFIC	Aviva Investors Emerging Markets Local Currency Bond Fund	Other	Fund	Non-mutual		0.9017	1.0000	0.9017		Dominant	0.9017	YES		Method 1: Adjusted equity method
	635400SKWIKGDVSOH807	LEI	Aviva Investors Euro Liquidity Fund	Other	Fund	Non-mutual		0.9500	1.0000	0.9500		Dominant	0.9500	YES		Method 1: Adjusted equity method
3	549300YEYDFL99EJ7G81	LEI	Aviva Insurance Limited	Non life insurance undertaking	Limited by Shares	Non-mutual	Prudential Regulation Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
J	YF0Y5B0IB8SM0ZFG9G99LU00776	SPECIFIC	Aviva Investors Alternative Income Solutions SCSp	Other	Fund	Non-mutual	· · · ·	0.5523	1.0000	0.5523		Dominant	0.5523	YES		Method 1: Adjusted equity method
?	969500NSF77622NH4S35	LEI	Aviva Investissements	Other	Société par actions simplifiée	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method

S.32.01.22 Undertakings in the scope of the Group

								Criteria of influence						the scope of pervision	Group solvency calculation	
Country	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting rights	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
7	9695001A1RB46DXET932	LEI	Aviva Investors Monétaire	Other	Fund	Non-mutual		0.8800	1.0000	0.8800		Dominant	0.8800	YES		Method 1: Adjusted equity method
В	YF0Y5B0IB8SM0ZFG9G82GB70014	SPECIFIC	Aviva Investors Infrastructure Income No.1 Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
В	YF0Y5B0IB8SM0ZFG9G82GB70015	SPECIFIC	Aviva Investors Infrastructure Income No.2 Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
В	YF0Y5B0IB8SM0ZFG9G82GB70016	SPECIFIC	Aviva Investors Infrastructure Income No.3 Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
В	YF0Y5B0IB8SM0ZFG9G82GB70018	SPECIFIC	Aviva Investors Infrastructure Income No.4B Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
В	YF0Y5B0IB8SM0ZFG9G82GB70017	SPECIFIC	Aviva Investors Infrastructure Income No.4A Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
U	YF0Y5B0IB8SM0ZFG9G81LU00987	SPECIFIC	Aviva Investors Multi-Strategy Target Return Fund – Sicav	Other	Fund	Non-mutual		0.4802	2.0000	0.4802		Significant	0.4802	YES		Method 1: Adjusted equity method
7	969500YPKHX4PQEHX273	LEI	Aviva Investors Valorisation	Other	Fund	Non-mutual		0.9290	1.0000	0.9290		Dominant	0.9290	YES		Method 1: Adjusted equity method
J	YF0Y5B0IB8SM0ZFG9G81LU00990	SPECIFIC	Aviva Investors UK Equity Focus Fund	Other	Fund	Non-mutual		0.9407	1.0000	0.9407		Dominant	0.9407	YES		Method 1: Adjusted equity method
?	969500YUF5K9ID0IA425	LEI	Aviva Japon	Other	Fund	Non-mutual		0.9950	1.0000	0.9950		Dominant	0.9950	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81IE00700	SPECIFIC	Aviva Investors Sterling Liquidity Plus Fund	Other	Fund	Non-mutual		0.7800	1.0000	0.7800		Dominant	0.7800	YES		Method 1: Adjusted equity method
?	969500UI2SSRVIE9XS52	LEI	Aviva Messine 5	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
Э	YF0Y5B0IB8SM0ZFG9G99NO00788	SPECIFIC	Aviva Investors CELLs Norway AS	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
Э	YF0Y5B0IB8SM0ZFG9G99NO00787	SPECIFIC	Aviva Investors CELLs Norway Holding AS	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
7	YF0Y5B0IB8SM0ZFG9G81FR00367	SPECIFIC	Aviva Oblirea	Other	Société d'Investissement À Capital Variable (SICAV)	Non-mutual	Autorité des marchés financiers	0.9707	1.0000	0.9707		Dominant	0.9707	YES		Method 1: Adjusted equity method
?	YF0Y5B0IB8SM0ZFG9G81FR00552	SPECIFIC	Aviva Patrimoine Immobilier	Other	Société civile de placement immobilier à capital variable	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
?	YF0Y5B0IB8SM0ZFG9G81FR00368	SPECIFIC	Aviva Patrimoine	Other	Société d'Investissement À Capital Variable (SICAV)	Non-mutual	Autorité des marchés financiers	0.9614	1.0000	0.9614		Dominant	0.9614	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB01717	SPECIFIC	Aviva Special PFI Limited Partnership	Other	Fund	Non-mutual		0.9480	1.0000	0.9480		Dominant	0.9480	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81	LEI	Aviva plc	Insurance holding company as defined in Article 212(1) (f) of Directive 2009/138/EC	Public Limited Company	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
М	5493005R2KD8T8D7KV64	LEI	Aviva Re Limited	Reinsurance undertaking	Limited by Shares	Non-mutual	Bermuda Monetary Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
7	9695001M356JF9H6T833	LEI	Aviva Sélection	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	213800D6RLWJIUKXWV49	LEI	Aviva Asia Digital Pte. Ltd.	Other	Private Company	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00742	SPECIFIC	Aviva Special PFI GP Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
?	YF0Y5B0IB8SM0ZFG9G81GX07142	SPECIFIC	Aviva Sélection Patrimoine	Other	Fund	Non-mutual		0.9880	1.0000	0.9880		Dominant	0.9880	YES		Method 1: Adjusted equity method
3	2138003WPDV58CUKWY43	LEI	Aviva Asia Pte Ltd	Other	Private Company	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
₹	2138002QK3VPGFT2XL15	LEI	Aviva Solutions	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Société par actions simplifiée	Non-mutual	Autorité de Contrôle Prudentiel et de Resolution	0.9999	1.0000	0.9999		Dominant	1.0000	YES		Method 1: Full consolidation
	E5C5M16QUC5ENFIRR536	LEI	Aviva SPA	Life insurance undertaking	Societá per Azioni (SpA)	Non-mutual	Commissione di Vigilanza sui Fondi Pensione	0.5100	1.0000	0.5100		Dominant	1.0000	YES		Method 1: Full consolidation
-	213800OYDF73VGTIRV78	LEI	Aviva Services Spółka z ograniczoną odpowiedzialnością	Other	Private Company	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
?	YF0Y5B0IB8SM0ZFG9G81GB07143	SPECIFIC	Aviva Sélection Opportunités	Other	Fund	Non-mutual		0.9910	1.0000	0.9910		Dominant	0.9910	YES		Method 1: Adjusted equity method
	213800KII2PHK1O1ZA55	LEI	Aviva Towarzystwo Ubezpieczen Ogolnych S.A.	Non life insurance undertaking	Private Company	Non-mutual	Polish Financial Supervision Authority	0.9000	1.0000	0.9000		Dominant	1.0000	YES		Method 1: Full consolidation
?	YF0Y5B0IB8SM0ZFG9G81FR00255		Aviva Valorisation Patrimoine	Other	Fund	Non-mutual		0.9960	1.0000	0.9960		Dominant	0.9960	YES		Method 1: Adjusted equity method
J	YF0Y5B0IB8SM0ZFG9G99LU00775	SPECIFIC	Aviva Investors CELLs Danone Sarl	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	213800ZUJ98EFZ9DF930	LEI	Aviva Central Services UK Limited	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
?	YF0Y5B0IB8SM0ZFG9G81FR00569	SPECIFIC	Aviva Commerce Europe	Other	Société par actions simplifiée	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
3	213800F8H2HAI1RV8M06	LEI	Aviva Commercial Finance Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
В	213800NLZEANEKQMOV48	LEI	Aviva Consumer Products UK Limited	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation

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										Criteria of	influence			Inclusion in Group su	pervision	Group solvency calculation
		Type of code of the ID of the				Category (mutual/		% capital	% used for the establishment of consolidated	% voting	Other	Level of	Proportional share used for group solvency		Date of decision if art. 214 is	Method used and under method 1
Country	Identification code of the undertaking	undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	non mutual)	Supervisory Authority	share	accounts	rights	criteria	influence	calculation	YES/NO	applied	treatment of the undertaking
0010	C0020 213800NHWV8Q6Q76SF08	C0030 LEI	C0040	C0050  Non-regulated undertaking carrying out	C0060	C0070	C0080	C0180 1.0000	C0190 1.0000	C0200 1.0000	C0210	C0220	C0230 1.0000	C0240	C0250	C0260 Method 1: Sectoral rules
,			Aviva Credit Services UK Limited	financial activities as defined in Article 1 (52) of Delegated Regulation (EU) 20	Limited by Shares	Non-mutual	Financial Conduct Authority					Dominant		YES		
	213800UYZGYM5QG6E120	LEI	Aviva Direct Ireland Limited	Credit institution, investment firm and financial institution	Private Company Limited by Shares (LTD)	Non-mutual	Central Bank of Ireland	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
3	YF0Y5B0IB8SM0ZFG9G81GB00118		Aviva UKLAP De-risking Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	213800H1VS15YGMW9E91	LEI	Aviva Driving School Ireland Limited	Other	Private Company Limited by Shares (LTD)	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	21380077FR2ST4ZDKX44	LEI	Aviva Employment Services Limited	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
?	213800RA6IV2PAUNN206	LEI	Aviva SA Emeklilik ve Hayat	Life insurance undertaking	Private Company	Non-mutual	Maliye Bakanligi Mali Suclari Arastirma Kurulu	0.4000	0.4000	0.4000		Significant	0.4000	YES		Method 1: Adjusted equity method
?	969500MJLHBS12H4XL16	LEI	Aviva Epargne Retraite	Life insurance undertaking	Société Anonyme	Non-mutual	Autorité de Contrôle Prudentiel et de Resolution		1.0000	0.9999		Dominant	1.0000	YES		Method 1: Full consolidation
3	375OYQ6H0Q4PK394M105	LEI	Aviva Equity Release UK Limited	Credit institution, investment firm and financial institution	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
В	213800J8VNRRHRJWKU77	LEI	Aviva Europe SE	Insurance holding company as defined in Article 212(1) (f) of Directive 2009/138/EC	Societas Europaea (SE)	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
4		SPECIFIC	Aviva General Insurance Company	Non life insurance undertaking	Private Corporation	Non-mutual	Office of the Superintendent of Financial Institutions	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
3	5493008NEQ31JQSE1K52	LEI	Aviva Group Holdings Limited	Insurance holding company as defined in Article 212(1) (f) of Directive 2009/138/EC		Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	213800Y4ZKU9KP4O5J90	LEI	Aviva Group Services Ireland Limited	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Private Company Limited by Shares (LTD)	Non-mutual	Irish Pensions Board	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
3	213800UWBEW1ZJRF5624	LEI	Aviva Health UK Limited	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
J	YF0Y5B0IB8SM0ZFG9G83GB41059	SPECIFIC	Aviva Investors Climate Transition European Equity Fund	Other	Fund	Non-mutual		0.9943	1.0000	0.9943		Dominant	0.9943	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G82GB00707	SPECIFIC	Aviva Investors Energy Centres No.1 GP Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB01747	SPECIFIC	Aviva Investors European Renewable Energy S.A.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	213800GM9MAT1JXEV770	LEI	Aviva Impact Investing France	Other	Société par actions simplifiée à capital variable	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81FR00570	SPECIFIC	Aviva Immo Selection	Other	Société civile immobilière (SCI)	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
5	54930016JCCSDQVZBE19	LEI	Aviva Investors Americas LLC	Credit institution, investment firm and financial institution	Limited Liability Company	Non-mutual	Securities and Exchange Commission	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
ì	549300VCTPPTZIGOYU60	LEI	Aviva Investors Asia Pte. Limited	Credit institution, investment firm and financial institution	Private Company	Non-mutual	Monetary Authority of Singapore	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
!	YF0Y5B0IB8SM0ZFG9G81CA70008		AVIVA INVESTORS EXPERIMMO PROPCO 2	Other	Société par actions simplifiée	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
!	YF0Y5B0IB8SM0ZFG9G81FR70009		AVIVA INVESTORS EXPERIMMO PROPCO 1	Other	Société par actions simplifiée	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
	969500ME439FYM13CH15	LEI	Aviva Investors France S.A	Credit institution, investment firm and financial institution	Société Anonyme	Non-mutual	Autorité des Marchés Financiers	0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Sectoral rules
3	WJHQ8HJCNBR1V6EQ1R27	LEI	Aviva Investors Global Services Limited	Credit institution, investment firm and financial institution	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
3	YF0Y5B0IB8SM0ZFG9G81GB00014		Aviva ERFA 15 UK Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
5	213800FN4QZNBOOWMQ08	LEI	Aviva Investors North America Holdings, Inc	Other	Corporation	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
Ą	549300D65EK4IWUDTC98	LEI	Aviva Insurance Company of Canada	Non life insurance undertaking	Private Corporation	Non-mutual	Office of the Superintendent of Financial Institutions	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
J	549300SPF3VO763NWP52	LEI	Aviva Investors Pacific Pty Ltd	Credit institution, investment firm and financial institution	Proprietary Limited	Non-mutual	Australian Securities & Investments Commission	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
Н	YF0Y5B0IB8SM0ZFG9G81CH00005	SPECIFIC	Aviva Investors Schweiz GmbH	Non-regulated undertaking carrying out financial activities as defined in Article 1 (52) of Delegated Regulation (EU) 20	Gesellschaft mit beschränkter Haftung (GmbH)	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules

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										Criteria of	influence				the scope of upervision	Group solvency calculation
Country	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting rights	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
iВ	213800OKSQ9GXTHLPB88	LEI	Aviva Insurance Services UK Limited	Credit institution, investment firm and financial institution	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
ΒB	213800RQGKQPDEHBNR90	LEI	Undershaft FAL Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
В	YF0Y5B0IB8SM0ZFG9G81GB00007	SPECIFIC	Aviva Insurance UK Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
Β	213800NBNVCKDZKLWL64	LEI	Aviva International Holdings Limited	Insurance holding company as defined in Article 212(1) (f) of Directive 2009/138/EC	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
ΒB	YSNZLTNDXKLPB9QGOZ10	LEI	Aviva International Insurance Limited	Reinsurance undertaking	Limited by Shares	Non-mutual	Prudential Regulation Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
Β	5493007VV85UTQ8CV292	LEI	Aviva Investors UK Fund Services Limited	Credit institution, investment firm and financial institution	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
BB.	549300D7BQP6VTN8BM24	LEI	Aviva Investors UK Funds Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
CA	549300MLBJFJX8EYP785	LEI	Aviva Investors Canada Inc.	Credit institution, investment firm and financial institution	Private Corporation	Non-mutual	Ontario Securities Commission	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
R	YF0Y5B0IB8SM0ZFG9G81FR70010	SPECIFIC	AVIVA INVESTORS EXPERIMMO	Other	Société civile de placement immobilier à capital variable	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
БB	549300193P3A4TN7LU07	LEI	Aviva Investors Holdings Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
.U	549300V8JA4BMYPQUJ49	LEI	Aviva Investors Luxembourg	Credit institution, investment firm and financial institution	Société Anonyme	Non-mutual	Commission de Surveillance du Service Financiere	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
BB.	GW2DWCFPKNYH3HYDE780	LEI	Aviva Investors Pensions Limited	Life insurance undertaking	Limited by Shares	Non-mutual	Prudential Regulation Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
R	2138002R94P2CYZ2ZW60	LEI	Aviva Investors Real Estate France S.A.	Other	Société Anonyme	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
Т	213800ZVJKW2H6CN1360	LEI	Aviva Italia Servizi Scarl	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Societa Consortile a Responsibilita Limitata	Non-mutual	Istituto per la Vigilanza sulle Assicurazioni	0.9192	1.0000	0.9192		Dominant	1.0000	YES		Method 1: Full consolidation
Т	815600A7E126B8274502	LEI	Aviva Italia S.p.A	Non life insurance undertaking	Societá per Azioni (SpA)	Non-mutual	Commissione Nazionale per le Societa e la Borsa	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
:N	213800SESKMN51A5R665	LEI	Aviva-Cofco Life Insurance Co. Ltd	Life insurance undertaking	Private Company	Non-mutual	China Insurance Regulatory Commission	0.5000	0.5000	0.5000		Dominant	0.5000	YES		Method 1: Proportional consolidation
łK	549300ZQINCHM3F5W972	LEI	Aviva Life Insurance Company Limited	Life insurance undertaking	Limited by Shares	Non-mutual	Office of the Commissioner of Insurance, Hong Kong	0.4000	0.4000	0.4000		Significant	0.4000	YES		Method 1: Adjusted equity method
Т	8156004BFEE098281115	LEI	Aviva Life SPA	Life insurance undertaking	Societá per Azioni (SpA)	Non-mutual	Commissione Nazionale per le Societa e la Borsa	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
Β	213800R5KOS6SXS8NL24	LEI	Aviva Life Holdings UK Limited	Insurance holding company as defined in Article 212(1) (f) of Directive 2009/138/EC	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
N	213800TGX4PTNC39XX35	LEI	Aviva Life Insurance Company India Limited	Life insurance undertaking	Public Company	Non-mutual	Insurance Regulatory and Development Authority of India	0.4900	0.4900	0.4900		Significant	0.4900	YES		Method 1: Adjusted equity method
SB	IHNZN3GVPQJ4BFKMDO95	LEI	Aviva Life & Pensions UK Limited	Life insurance undertaking	Limited by Shares	Non-mutual	Prudential Regulation Authority		1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
E	213800VUN96N7MZC3O39	LEI	Aviva Life Services Ireland Limited	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Private Company Limited by Shares (LTD)	Non-mutual	Central Bank of Ireland	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
Β	2138006JVBQW12P27J28	LEI	Aviva Life Services UK Limited	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
БB	YF0Y5B0IB8SM0ZFG9G81GB00094	SPECIFIC	Aviva Client Nominees UK Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
R	YF0Y5B0IB8SM0ZFG9G81FR00366	SPECIFIC	Aviva Oblig International	Other	Société d'Investissement À Capital Variable (SICAV)	Non-mutual	Autorité des marchés financiers	0.8893	1.0000	0.8893		Dominant	0.8893	YES		Method 1: Adjusted equity method
	213800JMPSZ7KSGUG977	LEI	Aviva Insurance Ireland Designated Activity Company	Non life insurance undertaking	Designated Activity Company (Ltd. by Shares) (DAC)	Non-mutual	Central Bank of Ireland	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
В	YF0Y5B0IB8SM0ZFG9G81GB00098	SPECIFIC	Aviva Overseas Holdings Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
В	YF0Y5B0IB8SM0ZFG9G81GB00015		Aviva (Peak No.1) UK Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
iB	YF0Y5B0IB8SM0ZFG9G81GB00016	-	Aviva (Peak No.2) UK Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
iB	213800EAQGGC37SGYS04	LEI	Aviva Pension Trustees UK Limited	Credit institution, investment firm and financial institution	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
iВ	YF0Y5B0IB8SM0ZFG9G81GB01054	SPECIFIC	Aviva Public Private Finance Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
R	YF0Y5B0IB8SM0ZFG9G81FR00370		Aviva Rendement Europe	Other	Société d'Investissement À	Non-mutual	Autorité des marchés	0.8278	1.0000	0.8278		Dominant	0.8278	YES		Method 1: Adjusted equity method
			·		Capital Variable (SICAV)		financiers									

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Inclusion in the scope of

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										Criteria of i	nfluence				tne scope or pervision	Group solvency calculation
ountry	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	<b>Legal form</b>	Category (mutual/ non mutual)	Supervisory Authority	% capital	% used for the establishment of consolidated accounts	% voting	Other	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1,
20010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
010	YF0Y5B0IB8SM0ZFG9G81GB00117		Aviva Company Secretarial Services Limited	Other	Limited by Shares	Non-mutual	C0000	1.0000	1.0000	1.0000	C0210	Dominant	1.0000	YES	C0230	Method 1: Adjusted equity metho
	2138003C8U4NUDKTGR85	LEI	Aviva Spółka z ograniczoną odpowiedzialnością	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35		Non-mutual	Polish Financial Supervision Authority	0.9000	1.0000	0.9000		Dominant	1.0000	YES		Method 1: Full consolidation
	549300F7DBOD216GB097	LEI	Aviva Staff Pension Trustee Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	549300IE5HB38SRLB009	LEI	Aviva Trustee Company Ireland Designated Activity Company	Other	Designated Activity Company (Ltd. by Shares) (DAC)	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00093	SPECIFIC	Aviva Trustees UK Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	259400IBCICD0KY7ZW46	LEI	Aviva Towarzystwo Ubezpieczen Na Zycie S.A.	Life insurance undertaking	SPÓŁKASPÓŁKA Z OGRANICZONA ODPOWIEDZIALNOSCIA (Sp z o.o.)	Non-mutual	Polish Financial Supervision Authority	0.9000	1.0000	0.9000		Dominant	1.0000	YES		Method 1: Full consolidation
	2138006BFAKHS8UKT527	LEI	Aviva UK Digital Limited	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	5493006NO0E0RU0BSO29	LEI	Aviva UKGI Investments Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth-
	YF0Y5B0IB8SM0ZFG9G81FR00371	SPECIFIC	Aviva Valeurs Francaises	Other	Société d'Investissement À Capital Variable (SICAV)	Non-mutual	Autorité des marchés financiers	0.9617	1.0000	0.9617		Dominant	0.9617	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81FR00372	SPECIFIC	Aviva Valeurs Immobilieres	Other	Société d'Investissement À Capital Variable (SICAV)	Non-mutual	Autorité des marchés financiers	0.8299	1.0000	0.8299		Dominant	0.8299	YES		Method 1: Adjusted equity method
	8156002504D91F4E0F04	LEI	Aviva Vita S.p.A	Life insurance undertaking	Societá per Azioni (SpA)	Non-mutual	Commissione di Vigilanza sui Fondi Pensione	0.7950	1.0000	0.7950		Dominant	1.0000	YES		Method 1: Full consolidation
	213800X28AO8V887L368	LEI	Aviva Warranty Services Inc.	Other	Private Corporation	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	2138008EY5V67I9UY420	LEI	Aviva Wrap UK Limited	Credit institution, investment firm and financial institution	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
	YF0Y5B0IB8SM0ZFG9G81CN00035	SPECIFIC	Aviva-Cofco Yi Li Asset Management Co Ltd	Credit institution, investment firm and financial institution	Private Company	Non-mutual	China Insurance Regulatory Commission	0.2050	0.2050	0.2050		Significant	0.2050	YES		Method 1: Sectoral rules
	213800M4ACVOFM6CQZ08	LEI	Aviva Powszechne Towarzystwo Emerytalne Aviva Santander S.A.	Institution for occupational retirement provision	SPÓŁKASPÓŁKA Z OGRANICZONA ODPOWIEDZIALNOSCIA (Sp z o.o.)	Non-mutual	Polish Financial Supervision Authority	0.8100	1.0000	0.8100		Dominant	0.8100	YES		Method 1: Sectoral rules
	969500JEKMZT5J60K945	LEI	Aviva Vie, Société Anonyme d'Assurances Vie et de Capitalisation	Life insurance undertaking	Société Anonyme	Non-mutual	Autorité de Contrôle Prudentiel et de Resolution	0.9999	1.0000	0.9999		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81GB11016	SPECIFIC	AXA Ethical Distribution Fund	Other	Fund	Non-mutual		0.3260	0.3260	0.3260		Significant		YES		Method 1: Adjusted equity method
	213800SV6DRRY8YTCS10	LEI	AXA UK Infrastructure Investment SAS	Other	Société par actions simplifiée			1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	213800H3BFP6JQBN5Z02	LEI	Ballard Investment Company Limited	Other	Limited by Shares	Non-mutual		0.2509	0.2509	0.2509		Significant	0.2509	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81IT00564	SPECIFIC	Banca Network Investimenti SPA	Other	Societá per Azioni (SpA)	Non-mutual	Commissione Nazionale per le Societa e la Borsa	0.2549	0.2549	0.2549		Significant		YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB01742		Barratt House Nominee 1 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB00745		Barratt House Nominee 2 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB01741		Barratt House LP	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81JE00800		Barratt House Unit Trust	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB01739 213800MUNQBMAQSG8Q07	SPECIFIC LEI	Barwell Business Park Nominee Limited Bay-Mill Specialty Insurance Adjusters Inc.	Other Other	Fund Private Corporation	Non-mutual Non-mutual	Financial Services	1.0000	1.0000	1.0000		Dominant Dominant	1.0000	YES		Method 1: Adjusted equity meth Method 1: Full consolidation
	5493004KDO649D8KU893	LEI	Schroder OEP US Core Fund	Other	Fund	Non-mutual	Commission of Ontario	0.4420	0.4420	0.4420		Significant	0.4420	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81LU00973		Aviva Investors European Corporate Bond Fund	Other	Fund	Non-mutual		0.6432	1.0000	0.6432		Dominant	0.6432	YES		Method 1: Adjusted equity meth
	549300TIZMMMMZIWPX54	LEI	Nikko AM Shenton Income Fund	Other	Fund	Non-mutual		0.5290	1.0000	0.5290		Dominant	0.5290	YES		Method 1: Adjusted equity meth
	254900MBOQ33P5G2N198	LEI	Nikko AM Shenton Asia Pacific Fund	Other	Fund	Non-mutual		0.6580	1.0000	0.6580		Dominant	0.6580	YES		Method 1: Adjusted equity meth
	549300QJGIE8WEKN0766	LEI	JPMorgan Indonesia Fund	Other	Fund	Non-mutual		0.3740	0.3740	0.3740		Significant	0.3740	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81LU00978		Aviva Investors Global Aggregate Bond Fund	Other	Fund	Non-mutual		0.9581	1.0000	0.9581		Dominant	0.9581	YES		Method 1: Adjusted equity meth
	5493001306CFO6BGDZ08	LEI	World Investment Opportunities Funds – China Performance Fund	Other	Fund	Non-mutual		0.3530	0.3530	0.3530		Significant		YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G82LU00121	SPECIFIC	World Investment Opportunities Funds – India Performance Fund	Other	Fund	Non-mutual		0.3420	0.3420	0.3420		Significant	0.3420	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G8274376	SPECIFIC	Victory Arcadia Fund	Other	Fund	Non-mutual		0.4640	0.4640	0.4640		Significant	0.4640	YES		Method 1: Adjusted equity meth
	969500PYX53R1KFBVV81	LEI	Aviva Amérique	Other	Fund	Non-mutual		0.9990	1.0000	0.9990		Dominant	0.9990	YES		Method 1: Adjusted equity method
ò	YF0Y5B0IB8SM0ZFG9G81GG00058	SPECIFIC	AXA Property Trust Limited	Other	Limited by Shares	Non-mutual		0.2840	0.2840	0.2840		Significant	0.2840	YES		Method 1: Adjusted equity metho
ò	YF0Y5B0IB8SM0ZFG9G82GG00141	SPECIFIC	WSF Asian Pacific Fund	Other	Fund	Non-mutual		0.3300	0.3300	0.3300		Significant		YES		Method 1: Adjusted equity metho

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										Criteria of	influence			Inclusion in Group su	pervision	Group solvency calculation
ountry	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting rights	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
	635400YD7OOB4VLZJC20	LEI	Aviva Life & Pensions Ireland Designated Activity Company	Life insurance undertaking	Designated Activity Company (Ltd. by Shares) (DAC)	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	969500Z27B0VP6OJGP03	LEI	Bellatrix	Other	Fund	Non-mutual		0.9900	1.0000	0.9900		Dominant	0.9900	YES		Method 1: Adjusted equity metho
	969500EY74WTS2C6D770	LEI	CGU Equilibre	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81LU00991	SPECIFIC	Aviva Investors US Equity Income Fund	Other	Fund	Non-mutual		0.6867	1.0000	0.6867		Dominant	0.6867	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81LU00968	SPECIFIC	Aviva Investors Emerging Markets Corporate Bond Fund	Other	Fund	Non-mutual		0.8401	1.0000	0.8401		Dominant	0.8401	YES		Method 1: Adjusted equity metho
	969500EHC27FAP6R5K80	LEI	Afer Oblig Monde Entreprises	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	549300MQT7YRWQ7R2C91	LEI	BlackRock Market Advantage Fund	Other	Fund	Non-mutual		0.3250	0.3250	0.3250		Significant	0.3250	YES		Method 1: Adjusted equity metho
	969500EJ694IE1URA044	LEI	Aviva Structure Index 4	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	635400LVVXZPFHZBOW33	LEI	FundLogic Alternatives plc – Smartfund Cautious Fund	Other	Fund	Non-mutual		0.2970	0.2970	0.2970		Significant	0.2970	YES		Method 1: Adjusted equity metho
	213800B4C4T33ELOEG72	LEI	IFSL Tilney Bestinvest Global Income Portfolio	Other	Fund	Non-mutual		0.2220	0.2220	0.2220		Significant	0.2220	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G82LU37046	SPECIFIC	Aviva Investors Global Equity Endurance Fund – Sicav	Other	Fund	Non-mutual		0.9935	1.0000	0.9935		Dominant	0.9935	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81LU00023	SPECIFIC	Aviva Investors Global Equity Endurance Fund	Other	Fund	Non-mutual		0.9973	1.0000	0.9973		Dominant	0.9973	YES		Method 1: Adjusted equity metho
	9695004MYUTUJVLT1J04	LEI	UFF Oblicontext 2023 A	Other	Fund	Non-mutual		0.9730	1.0000	0.9730		Dominant	0.9730	YES		Method 1: Adjusted equity metho
		LEI	Aviva Flex	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81PL00150		Berkley Investments S.A.	Other	Private Company	Non-mutual		0.9000	1.0000	0.9000		Dominant	0.9000	YES		Method 1: Adjusted equity metho
	9695002PHGTYWR9PF538	LEI	Bételgeuse	Other	Fund	Non-mutual		0.9130	1.0000	0.9130		Dominant	0.9130	YES		Method 1: Adjusted equity metho
	213800YHP3VDM1MKQ347	LEI	Bankhall Support Services Limited	Credit institution, investment firm and financial institution	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
	2138009ZHAJ56NONAY14	LEI	Aviva Life Investments International (Recovery) Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01714	SPECIFIC	Biomass UK No. 2 Limited	Other	Fund	Non-mutual		1 0000	1 0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G99LU00779	SPECIFIC	Biomass UK No.1 LLP	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G99LU00778		Biomass UK No. 3 Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00758		Boston Wood Recovery Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00010		Synergy Sunrise (Broadlands) Limited	Other	Limited by Shares	Non-mutual		1 0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01737		Building a Future (Newham Schools) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	213800IHQIYLN4HKER16	LEI	Santander Towarzystwo Ubezpieczeń Spółka Akcyjna	Non life insurance undertaking	SPÓŁKA Z OGRANICZONA ODPOWIEDZIALNOSCIA (Sp z o.o.)	Non-mutual	Polish Financial Supervision Authority	0.5100	1.0000	0.5100		Dominant	1.0000	YES		Method 1: Full consolidation
	2138005KUPFMMPBEOZ70	LEI	Santander Aviva Towarzystwo Ubezpieczeń na Życie Spółka Akcyjna	Life insurance undertaking	Private Company	Non-mutual	Polish Financial Supervision Authority	0.5113	1.0000	0.5113		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81GB01736	SPECIFIC	Capital Residential Fund	Other	Fund	Non-mutual		0.8797	1.0000	0.8797		Dominant	0.8797	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00763	SPECIFIC	CARDIFF BAY GP LIMITED	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G83LU00003	SPECIFIC	Aviva Investors Cells (GP) S.à r.l.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00095	SPECIFIC	CGNU Life Assurance Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81NL00116	SPECIFIC	CGU International Holdings BV	Other	Besloten vennootschap (BV)	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81JE00795	SPECIFIC	Chancery House London Unit Trust	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01162	SPECIFIC	Chesterford Park (General Partner) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01163	SPECIFIC	Chesterford Park (Nominee) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00009	SPECIFIC	Commercial Union Corporate Member Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	213800PA9XNJ57ILSD78	LEI	Commercial Union Trustees Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00096	SPECIFIC	Commercial Union Life Assurance Company Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01085	SPECIFIC	CORNERFORD Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01088	SPECIFIC	COW Real Estate Investment Nominee Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81FF00004	SPECIFIC	Crieff Road Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
		SPECIFIC	Croissance Pierre II	Other	Société Anonyme	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00121		Defined Returns Limited	Other	Limited by Shares	Non-mutual	Financial Conduct Authority	0.2852	0.2852	0.2852		Significant		YES		Method 1: Adjusted equity metho
		SPECIFIC	The Designer Retail Outlet Centres Unit Trust	Other	Fund	Non-mutual		0.9700	1.0000	0.9700		Dominant	0.9700	YES		Method 1: Adjusted equity metho
3		SPECIFIC	The Designer Retail Outlet Centres (General Partner) Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00946	SPECIFIC	The Designer Retail Outlet Centres (Mansfield) General Partner Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho

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										Criteria of	influence				the scope of upervision	Group solvency calculation
Country	Identification code of the undertaking	Type of code of the ID of the undertaking	f Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting rights	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
БB	YF0Y5B0IB8SM0ZFG9G81GB00947	SPECIFIC	The Designer Retail Outlet Centres (York) General Partner Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
iΒ	YF0Y5B0IB8SM0ZFG9G81GB00870	SPECIFIC	Renewable Clean Energy Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
iΒ	YF0Y5B0IB8SM0ZFG9G81GB00776	SPECIFIC	EES Operations 1 Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
S	YF0Y5B0IB8SM0ZFG9G81ES00665	SPECIFIC	Eólica Almatret S.L.	Other	Fund	Non-mutual		0.4500	0.4500	0.4500		Significant	0.4500	YES		Method 1: Adjusted equity method
A	2138008NNYIEXUG8X681	LEI	Elite Insurance Company	Non life insurance undertaking	Private Corporation	Non-mutual	Office of the Superintendent of Financial Institutions	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
3	YF0Y5B0IB8SM0ZFG9G81GB01059	SPECIFIC	Tenet Financial Services Limited	Other	Limited by Shares	Non-mutual		0.3711	0.3711	0.3711		Significant	0.3711	YES		Method 1: Adjusted equity method
?	213800C5KYXWRYFB6J50	LEI	Epargne Actuelle	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Société Anonyme	Non-mutual		0.9999	1.0000	0.9999		Dominant	1.0000	YES		Method 1: Full consolidation
J	YF0Y5B0IB8SM0ZFG9G91LU00011	SPECIFIC	EPI NU Sarl	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
J	YF0Y5B0IB8SM0ZFG9G82LU70008	SPECIFIC	EP Megaron GP GmbH	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
J	YF0Y5B0IB8SM0ZFG9G82LU70011	SPECIFIC	EP Megaron Holding Sarl	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
J	YF0Y5B0IB8SM0ZFG9G82LU70010	SPECIFIC	EP Megaron GmbH & Co. KG	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
J	YF0Y5B0IB8SM0ZFG9G82LU70012	SPECIFIC	European Properties Sarl	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
5	213800T9D4VFR4O2RV32	LEI	Exeter Properties Inc.	Other	Corporation	Non-mutual		0.9500	1.0000	0.9500		Dominant	0.9500	YES		Method 1: Adjusted equity method
-	YF0Y5B0IB8SM0ZFG9G81PL00108	SPECIFIC	Expander Advisors Sp. z o.o.	Other	SPÓŁKA Z OGRANICZONA ODPOWIEDZIALNOSCIA (Sp z o.o.)	Non-mutual		0.9000	1.0000	0.9000		Dominant	0.9000	YES		Method 1: Adjusted equity method
В	YF0Y5B0IB8SM0ZFG9G81GB01122	SPECIFIC	AXA Rosenberg Asia Pacific ex Japan Fund	Other	Fund	Non-mutual		0.8760	1.0000	0.8760		Dominant	0.8760	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB01123	SPECIFIC	AXA Rosenberg Japan Fund	Other	Fund	Non-mutual		0.9460	1.0000	0.9460		Dominant	0.9460	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB01124	SPECIFIC	AXA Rosenberg Global Fund	Other	Fund	Non-mutual		0.8850	1.0000	0.8850		Dominant	0.8850	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB01126	SPECIFIC	AXA Rosenberg American Fund	Other	Fund	Non-mutual		0.8900	1.0000	0.8900		Dominant	0.8900	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB01135	SPECIFIC	Architas Multi-Manager Diversified Protector 70	Other	Fund	Non-mutual		0.5040	1.0000	0.5040		Dominant	0.5040	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB01136	SPECIFIC	Architas Multi-Manager Diversified Protector 80	Other	Fund	Non-mutual		0.3680	0.3680	0.3680		Significant	0.3680	YES		Method 1: Adjusted equity method
J	YF0Y5B0IB8SM0ZFG9G81LU00722	SPECIFIC	Reliance Emergent India Fund	Other	Fund	Non-mutual		0.3340	0.3340	0.3340		Significant	0.3340	YES		Method 1: Adjusted equity method
	549300AS0PNZRA41Q513	LEI	VAM Funds (Lux) – International Real Estate Equity Fund	Other	Fund	Non-mutual		0.3396	0.3396	0.3396		Significant	0.3396	YES		Method 1: Adjusted equity method
	9695009PKM0QN1ZE1H31	LEI	UFF Valeurs PME A	Other	Fund	Non-mutual		0.9790	1.0000	0.9790		Dominant	0.9790	YES		Method 1: Adjusted equity method
	969500BT7VVTV6WS0Q06	LEI	Afer Actions PME	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	969500112IWWAHHGH631	LEI	UFF Oblicontext 2021 A	Other	Fund	Non-mutual		0.9830	1.0000	0.9830		Dominant	0.9830	YES		Method 1: Adjusted equity method
	96950080BV8Q60QRS314	LEI	UFF Global Convertibles A	Other	Fund	Non-mutual		0.9890	1.0000	0.9890		Dominant	0.9890	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81IT00216	SPECIFIC	PRAMERICA PAN-EUROPEAN REAL ESTATE FUND	Other	Fund	Non-mutual		0.5943	1.0000	0.5943		Dominant	0.5943	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00727	SPECIFIC	TIKEHAU ITALY RETAIL FUND II SCSP-AREA12	Other	Fund	Non-mutual		0.2029	0.2029	0.2029		Significant	0.2029	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81MT00130		HERAKLES	Other	Fund	Non-mutual		0.4760	0.4760	0.4760		Significant	0.4760	YES		Method 1: Adjusted equity method
	549300EBZC8311XVSD74	LEI	Lazard Multicap UK Income Fund	Other	Fund	Non-mutual		0.5030	1.0000	0.5030		Dominant	0.5030	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB07156	SPECIFIC	UFF Global Multi-Stratégies A	Other	Fund	Non-mutual		0.9870	1.0000	0.9870		Dominant	0.9870	YES		Method 1: Adjusted equity method
	549300KTG2QC65N1RT88	LEI	Aviva Investors Multi-Strategy Target Income Fund – OEICs	Other	Fund	Non-mutual		0.8824	1.0000	0.8824		Dominant	0.8824	YES		Method 1: Adjusted equity method
	WNKB3JPLTJ81WSTUSR75	LEI	Aviva Investors Corporate Bond Fund	Other	Fund	Non-mutual		0.9281	1.0000	0.9281	-	Dominant	0.9281	YES		Method 1: Adjusted equity method
		LEI	Aviva Investors High Yield Bond Fund Aviva Investors International Index	Other Other	Fund Fund	Non-mutual Non-mutual		0.4001	0.4001 1.0000	0.4001 0.7021		Significant Dominant	0.4001 0.7021	YES		Method 1: Adjusted equity method Method 1: Adjusted equity method
	5493003EVQGCFXKAC536	LEI	Tracking Fund	Other	Fund	Non-mutual		0.6257	1.0000	0.6257		Dominant	0.6257	YES		Mothod to Adjusted a suite on the
	-	LEI	Aviva Investors Managed High Income Fund Aviva Investors Multi-Strategy Target Return Fund – OEICs	Other	Fund	Non-mutual		0.6257	0.4780	0.6257		Significant	0.6257	YES		Method 1: Adjusted equity method Method 1: Adjusted equity method
	5493007I RNTMWVAO5411	LEI	Aviva Investors Strategic Bond Fund	Other	Fund	Non-mutual		0.4333	0.4333	0.4333		Significant	0.4333	YES		Method 1: Adjusted equity method
}	5493007GW4RAYBR7UO27	LEI	Aviva Investors Strategic Bond Fund Aviva Investors UK Index Tracking Fund	Other	Fund	Non-mutual		0.6063	1.0000	0.4333		Dominant	0.6063	YES		Method 1: Adjusted equity method Method 1: Adjusted equity method
		LEI	Aviva Investors OK Index Tracking Fund Aviva Investors Japan Equity MoM 1 Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
		LEI	Aviva Investors UK Equity MoM 1 Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
		LEI	Aviva Investors UK Listed High Alpha Fund	Other	Fund	Non-mutual		0.9420	1.0000	0.9420		Dominant	0.9420	YES		Method 1: Adjusted equity method
		LEI	Aviva Investors OK Listed High Alpha Fund	Other	Fund	Non-mutual		0.4988	0.4988	0.4988		Significant	0.4988	YES		Method 1: Adjusted equity method
	5493001NAHZEDKONWA65 5493004WPW8R8A0BLK64	LEI	Aviva Investors Multi-Asset III Fund Aviva Investors Multi-Asset V Fund	Other	Fund	Non-mutual		0.4988	0.4966	0.4988		Significant	0.4988	YES		Method 1: Adjusted equity method
3	549300HAZDS0DUKMIV45	LEI	Aviva Investors Multi-Manager 20-60% Shares Fund	Other	Fund	Non-mutual		0.7502	1.0000	0.7502		Dominant	0.7502	YES		Method 1: Adjusted equity method Method 1: Adjusted equity method
В	5493008RVDHT2VPXMX96	LEI	Aviva Investors Multi-Manager 40-85% Shares Fund	Other	Fund	Non-mutual		0.7077	1.0000	0.7077		Dominant	0.7077	YES		Method 1: Adjusted equity method
3	549300Z2YVKNIFT1RK19	LEI	Aviva Investors Multi-Manager Flexible Fund	Other	Fund	Non-mutual		0.8185	1.0000	0.8185		Dominant	0.8185	YES		Method 1: Adjusted equity method

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										Criteria of	influence				the scope of upervision	Group solvency calculation
Country	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting rights	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
	549300CVVE0B7IOI8K75	LEI	Aviva Investors Asia Pacific Property Fund	Other	Fund	Non-mutual	0000	0.8046	1.0000	0.8046	COLIO	Dominant	0.8046	YES	COZOG	Method 1: Adjusted equity metho
	5493007IAWVFNDY96310	LEI	Aviva Investors European Property Fund	Other	Fund	Non-mutual		0.7699	1.0000	0.7699		Dominant	0.7699	YES		Method 1: Adjusted equity methor
	549300BNVOZICIRG3Z67	LEI	Aviva Investors Global Equity Income Fund	Other	Fund	Non-mutual		0.7785	1.0000	0.7785		Dominant	0.7785	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01734		1 Fitzroy Place Limited Partnership	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB01733		2 Fitzrov Place Limited Partnership	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB01732		2-10 Mortimer Street Limited Partnership	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB01731		20 Gracechurch Limited Partnership	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
1	YF0Y5B0IB8SM0ZFG9G84LU00004	SPECIFIC	Aviva Investors CELLS SCSp	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G88LU00008		Centaurus Sarl	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81JE00008	SPECIFIC	COW Real Estate Investment Unit Trust	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YE0Y5B0IB8SM0ZEG9G81GB01100		Rugby Radio Station Limited Partnership	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity meth
В	YF0Y5B0IB8SM0ZFG9G81GB01102	SPECIFIC	Norwich Union Public Private Partnership Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3 1	YF0Y5B0IB8SM0ZFG9G81GB01107	SPECIFIC	PROPERTY MANAGEMENT COMPANY (CROYDON) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
_	YF0Y5B0IB8SM0ZFG9G81GB01110	-	Southgate Limited Partnership	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G99LU00020		VH German Mandate	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
_	YF0Y5B0IB8SM0ZFG9G99LU00773	-	Aviva Investors CELLs Holdings Sarl	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G99LU00774		Aviva Investors CELLs Stern Sarl	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
3	YF0Y5B0IB8SM0ZFG9G81GB01718	SPECIFIC	Cannock Designer Outlet (GP Holdings) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
3 1	YF0Y5B0IB8SM0ZFG9G81GB01719	SPECIFIC	Cannock Designer Outlet (GP) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
_	YF0Y5B0IB8SM0ZFG9G81GB01720		Cannock Designer Outlet (Nominee 1) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB01721		Cannock Designer Outlet (Nominee 2) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB01182		Voyager Park South Management Company Limited	Other	Limited by Shares	Non-mutual		0.5185	1.0000	0.5185		Dominant	0.5185	YES		Method 1: Adjusted equity meth
3 1	YF0Y5B0IB8SM0ZFG9G81GB01722	SPECIFIC	Chesterford Park Limited Partnership	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity meth
	259400KUDQ3GXLVZI530	LEI	Aviva Investors Sfio Akcyjny	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	259400IZOX968T4DUL83	LEI	Aviva Investors Sfio Dluzny	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	259400SQ772CGEWGOW31	LEI	Aviva Investors Sfio Spolek Dywidend	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
. :	2594007OOG3BTCWIVN59	LEI	Aviva Investors Sfio Pieniezny	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
. :	25940046EVDIBJ697A83	LEI	Aviva Investors Sfio Pap Nieskarbowych	Other	Fund	Non-mutual		0.9910	1.0000	0.9910		Dominant	0.9910	YES		Method 1: Adjusted equity meth
. '	YF0Y5B0IB8SM0ZFG9G81PX70053 0	SPECIFIC	Aviva Investors Sfio Aviva Lokacyjny	Other	Fund	Non-mutual		0.7150	1.0000	0.7150		Dominant	0.7150	YES		Method 1: Adjusted equity meth
. 1	259400XV37LVAWDAKT14	LEI	Aviva Investors Fio Depozyt Plus	Other	Fund	Non-mutual		0.4280	0.4280	0.4280		Significant	0.4280	YES		Method 1: Adjusted equity meth
	259400DS3F5W6JPDXK09	LEI	Aviva Investors Fio Malych Spolek	Other	Fund	Non-mutual		0.6790	1.0000	0.6790		Dominant	0.6790	YES		Method 1: Adjusted equity meth
. :	259400NBRBLTWIZMEL77	LEI	Aviva Investors Fio Nowoczesnych Technologii	Other	Fund	Non-mutual		0.7910	1.0000	0.7910		Dominant	0.7910	YES		Method 1: Adjusted equity meth
. :	259400PC8C55S8KTSG93	LEI	Aviva Investors Fio Obligacji	Other	Fund	Non-mutual		0.7970	1.0000	0.7970		Dominant	0.7970	YES		Method 1: Adjusted equity meth
	259400XXUXU425H52066	LEI	Aviva Investors Fio Polskich Akcji	Other	Fund	Non-mutual		0.5750	1.0000	0.5750		Dominant	0.5750	YES		Method 1: Adjusted equity meth
1	259400TPM9E2JOVK3N12	LEI	Aviva Investors FIO Aktywnej Alokacji	Other	Fund	Non-mutual		0.2350	0.2350	0.2350		Significant	0.2350	YES		Method 1: Adjusted equity meth
,	YF0Y5B0IB8SM0ZFG9G81LU00024	SPECIFIC	Aviva Investors Multi-Strategy Fixed Income Fund	Other	Fund	Non-mutual		0.2904	2.0000	0.2904		Significant	0.2904	YES		Method 1: Adjusted equity meth
		LEI	Aviva Investors Asia Pacific ex Japan Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	213800QHAK1PQOF2FQ67	LEI	Aviva Investors Balanced Life Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	213800KV3Q3Q33YJKC55	LEI	Aviva Investors Balanced Pension Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	21380057P1LXHFXS6L65	LEI	Aviva Investors Sterling Corporate Bond Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	213800YE3Z5RWTRDTK61	LEI	Aviva Investors Cautious Pension Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	213800ETJFFG1M8MXR36	LEI	Aviva Investors Distribution Life Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	213800Q9B1O4HBDKOC48	LEI	Aviva Investors Europe Equity ex UK Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	213800TOQ7KUA3E4EG58	LEI	Aviva Investors Global Equity Alpha Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	2138005OR58GSE74VE95	LEI	Aviva Investors Global Equity Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	213800DRNCHY9KH8QP26	LEI	Aviva Investors Japan Equity Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	213800RPL1QJU8TWJN11	LEI	Aviva Investors Money Market VNAV Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	213800HVVI8GMZJDIT68	LEI	Aviva Investors North American Equity Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	213800E5NACRMG3X5283	LEI	Aviva Investors Stewardship UK Equity Income Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	213800Q9ANQDOOQ1ET94	LEI	Aviva Investors Strategic Global Equity Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	213800BQITU4TGOH7G43	LEI	Aviva Investors Sterling Gilt Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	213800YEQXEL1GVZSO43	LEI	Aviva Investors Stewardship International Equity Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
3 2	213800K12SJ9VVG4KL55	LEI	Aviva Investors Stewardship Fixed Interest Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
3 2	213800H4IV7IX1LRCQ58	LEI	Aviva Investors Stewardship UK Equity Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth

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										Criteria of i	nfluence			Inclusion in Group su	the scope of ipervision	Group solvency calculation
Country	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting rights	Other	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	CO260
3010		LEI	Aviva Investors UK Equity Fund	Other	Fund	Non-mutual	0000	1.0000	1.0000	1.0000	C0210	Dominant	1.0000	YES	C0230	Method 1: Adjusted equity method
		LEI	Aviva Investors UK Equity I und	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
		LEI	Aviva Investors US Large Cap Equity Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
_		LEI	Aviva Investors Os Large Cap Equity Fund Aviva Investors Continental European	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
			Eq Alpha Fund													
	549300818OBCDX7R9S24	LEI	Aviva Investors UK Equity Alpha Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	5493005OQ50WBONIT777	LEI	Aviva Investors UK Equity Dividend Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	2138002Z9YUFQ5JPPY03	LEI	Aviva Investors Index Linked Gilt Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	213800COLF8AUBBRD618	LEI	Aviva Investors Pre-Annuity Fixed Interest Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	549300OCFNNUQSICSF40	LEI	Aviva Investors 30 70 GLobal Eq Ccy Hedged Ind Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	549300QFXHKD30RF2842	LEI	Aviva Investors Multi-Asset 40 85 Shares Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	5493004Z3CXSFGXBCF13	LEI	Aviva Investors 40 60 Global Equity Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	549300TDLF4V5Q629M65	LEI	Aviva Investors 50 50 Global Equity Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	5493008CZBJ12QU4J279	LEI	Aviva Investors 60 40 Global Equity Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	549300V0STT14KKQ7558	LEI	Aviva Investors Continental Euro Equity Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	549300KCNG9URI8Y5M29	LEI	Aviva Investors Dev Asia Pacific Ex Japan Eq Ind Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	549300VTDDX1OT5IL464	LEI	Aviva Investors Dev Euro Ex UK Equity Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	54930035AQ6RT73PQT59	LEI	Aviva Investors Developd Overseas Gov Bd Ex UK Ind Ed	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	5493003F60BKO1SJUG24	LEI	Aviva Investors Dev World Ex UK Equity Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	549300J7N89NSWX9N033	LEI	Aviva Investors UK Eq Ex Aviva Inv Trusts Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	549300Q5LSPC8EHJ6A76	LEI	Aviva Investors UK Gilts Over 15 Years Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	549300LAANOCCODOT948	LEI	Aviva Investors UK Gilts All Stocks Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	549300W3PDF2HHQFLS11	LEI	Aviva Investors Idx-Lkd Gilts Ovr 5 Yrs Idx Fd	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
		LEI	Aviva Investors Japanese Equity Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
		LEI	Aviva Investors North American Equity	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
			Index Fund													, , ,
	5493004JXUT4R07XYP41	LEI	Aviva Investors Non-Gilt Bond Over 15 Yrs Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
		LEI	Aviva Investors Non-Gilt Bond All Stocks Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	549300K5OT5AWF935F04	LEI	Aviva Investors UK Equity Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
		LEI	Aviva Investors US Equity Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01770	SPECIFIC	Aviva Investors UK Equity Ex Tobacco	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB01771		Aviva Investors Japan Equity Alpha Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01772	SPECIFIC	Aviva Investors Non-Gilt Bond Up to 5 Yrs Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01773	SPECIFIC	Aviva Investors Pacific Ex Japan Equity Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01774	SPECIFIC	Aviva Investors UK Gilts Up to 5 Yrs Index Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00162	SPECIFIC	Friends AELLAS Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GG70004		BMO Commercial Property Trust Limited	Other	Limited by Shares	Non-mutual		0.4697	0.4697	0.4697		Significant	0.4697	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81FF00003	SPECIFIC	FF UK Select Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00778		Fitzroy Place Management Co Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00779		Fitzroy Place Residential Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB00777		Fitzroy Place GP 2 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB00059		Friends Life Assurance Society Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth-
	213800AF9R6ANNVL4V97	LEI	Friends Life Company Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
		LEI	Friends Life Distribution Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	5493007CDYM7I1M5DZ80	LEI	Aviva Investment Solutions UK Limited	Credit institution, investment firm and financial institution	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules

\$.32.01.22 Undertakings in the scope of the Group

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										Criteria of	influence				the scope of pervision	Group solvency calculation
ountry	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting rights	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
	213800W5XJMDWJ3TJY69	LEI	FPB Holdings GmbH	Other	Gesellschaft mit beschränkter Haftung (GmbH)	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	213800PL3PRHOJJPX274	LEI	Friends Life FPG Limited	Insurance holding company as defined in Article 212(1) (f) of Directive 2009/138/EC	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	213800WTATMITUGXJQ69	LEI	Friends Life Holdings plc	Other	Public Limited Company	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	213800CECM9GLPORVF36	LEI	Friends Provident International Limited	Life insurance undertaking	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	213800OZLDLBC917AZ77	LEI	Friends Provident International Services Limited	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81GB00064	SPECIFIC	Undershaft FPLLA Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	213800ZRHYVMTNLZ3W96	LEI	Friends Life FPLMA Limited	Non life insurance undertaking	Limited by Shares	Non-mutual	Prudential Regulation Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81GB00065	SPECIFIC	Friends Provident Managed Pension Funds Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	2138003CYXQ7ZSMFIW51	LEI	Aviva Management Services UK Limited	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	2138008ZQS9EN5Z5KM53	LEI	FPPE Fund Public Limited Company	Other	Public Limited Company	Non-mutual	Central Bank of Ireland	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	213800LZUBDOS1TXEB39	LEI	Friends Life FPL Limited	Insurance holding company as defined in Article 212(1) (f) of Directive 2009/138/EC	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81GB00128	SPECIFIC	Friends Provident Pension Scheme Trustees Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB00780	SPECIFIC	Free Solar (Stage 1) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81FF00005	SPECIFIC	Friends First US Property Company Limited	Other	Private Company Limited by Shares (LTD)	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	635400TZOCAUEXNLHT31	LEI	Friends First Managed Pensions Funds Designated Activity Company	Other	Designated Activity Company (Ltd. by Shares) (DAC)	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81GB00006	SPECIFIC	Friends Life Funds Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth-
	549300NYP1X2VF6BTW90	LEI	Friends Life and Pensions Limited	Life insurance undertaking	Limited by Shares	Non-mutual	Prudential Regulation Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	549300KTLIAIKSMMBO32	LEI	Aviva Administration Limited	Credit institution, investment firm and financial institution	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
	YVWKAYL3K13YWXAVNZ95	LEI	Friends Life Limited	Life insurance undertaking	Limited by Shares	Non-mutual	Prudential Regulation Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	2138009QRYZD6OU2NG44	LEI	Friends Provident Distribution Holdings Limited	Non-regulated undertaking carrying out financial activities as defined in Article 1 (52) of Delegated Regulation (EU) 20	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	2138005J84RYUEEHDO66	LEI	Friends Provident Investment Holdings Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB00066	SPECIFIC	Friends Provident Life Assurance Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	213800GJT26929P77P35	LEI	General Accident plc	Other	Public Limited Company	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
		LEI	General Accident Executor and Trustee Company Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81DE00545		German Retail II GmbH	Other	Fund	Non-mutual		0.9836	1.0000	0.9836		Dominant	0.9836	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81DE00546		German Retail III GmbH	Other	Fund	Non-mutual		0.9836	1.0000	0.9836		Dominant	0.9836	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81DE00550	SPECIFIC	German Retail VII GmbH	Other	Fund	Non-mutual		0.9836	1.0000	0.9836		Dominant	0.9836	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81DE00551	SPECIFIC	German Retail VIII GmbH	Other	Fund	Non-mutual		0.9836	1.0000	0.9836		Dominant	0.9836	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81DE00547		German Retail IV GmbH	Other	Fund	Non-mutual		0.9836	1.0000	0.9836		Dominant	0.9836	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81DE00548		German Retail IX GmbH	Other	Fund	Non-mutual		0.9836	1.0000	0.9836		Dominant	0.9836	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81DE00544		German Retail I GmbH	Other	Fund	Non-mutual		0.9836	1.0000	0.9836		Dominant	0.9836	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81DE00549		German Retail V GmbH	Other	Fund	Non-mutual		0.9836	1.0000	0.9836		Dominant	0.9836	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00636		German Retail Investment Properties S.à r.l.	Other	Fund	Non-mutual		0.9836	1.0000	0.9836		Dominant	0.9836	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G99LU00771		GERMAN RETAIL INVESTMENT PROPERTY FUND, FCP-SIF	Other	Fund	Non-mutual		0.9836	1.0000	0.9836		Dominant	0.9836	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB00784	SPECIFIC	Gobafoss General Partner Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81GB01092	SPECIFIC	Gobafoss Partnership Nominee No 1 Ltd	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity meth
	YF0Y5B0IB8SM0ZFG9G81LU00617	SPECIFIC	Goodman European Business Park Fund (Lux) S.àr.l.	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method

S.32.01.22 Undertakings in the scope of the Group

										Criteria of	influence				n the scope of upervision	Group solvency calculation
Country	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting rights	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
В	2138003FG2HTZMDU6M40	LEI	Gresham Insurance Company Limited	Non life insurance undertaking	Limited by Shares	Non-mutual	Prudential Regulation Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
7	YF0Y5B0IB8SM0ZFG9G81FR00543	SPECIFIC	Groupement D'Interet Economique du Groupe Aviva France	Other	Economic Interest Grouping	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00807	SPECIFIC	Medium Scale Wind No.1 Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
·	YF0Y5B0IB8SM0ZFG9G81LU11110		HASPA TRENDKONZEPT-V (HASTRDV)	Other	Fund	Non-mutual		0.5480	1.0000	0.5480		Dominant	0.5480	YES		Method 1: Adjusted equity method
3	213800X8AMWP7I 33GV60	LEI	Health & Case Management Limited	Other	Limited by Shares	Non-mutual		0.2509	0.2509	0.2509		Significant	0.2509	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB01062		Healthcare Purchasing Alliance Limited	Other	Limited by Shares	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	213800KA5DH8W46SEF79	LEI	Healthcode Limited	Other	Limited by Shares	Non-mutual		0.2000	0.2000	0.2000		Significant	0.2000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00786		Hemel Hempstead Estate Management	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00618	SPECIFIC	Hexagone S.à r.l.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
}	YF0Y5B0IB8SM0ZFG9G81GB00787	-	Hillswood Management Limited	Other	Fund	Non-mutual		0.2400	0.2400	0.2400		Significant	0.2400	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00788		Homesun 2 Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00789		Homesun 3 Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000	-	Dominant	1.0000	YES	_	Method 1: Adjusted equity method Method 1: Adjusted equity method
		-	Homesun 4 Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000	-	Dominant	1.0000	YES	_	
	YF0Y5B0IB8SM0ZFG9G81GB00790 YF0Y5B0IB8SM0ZFG9G81GB00791		Homesun 4 Limited Homesun 5 Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
						-						_				Method 1: Adjusted equity method
1	YF0Y5B0IB8SM0ZFG9G81GB00792 YF0Y5B0IB8SM0ZFG9G81GX07148		Homesun Limited Houlton Commercial Management Company Limited	Other Other	Fund Limited by Guarantee	Non-mutual Non-mutual		1.0000 0.5000	1.0000	1.0000 0.5000		Dominant Dominant	1.0000 0.5000	YES		Method 1: Adjusted equity method Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB70003	SPECIFIC	Houlton Community Management Company Limited	Other	Limited by Guarantee	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00127	SPECIFIC	Wealth Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YEOY5B0IB8SM0ZFG9G81FR00616		AXA LBO FUND IV FEEDER	Other	Fund	Non-mutual		0.3880	0.3880	0.3880		Significant	0.3880	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G99LU00770		Centaurus CER (Aviva Investors) S.à r.l.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00927	SPECIFIC	Igloo Regeneration Developments LP	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00950		Igloo Regeneration Partnership	Other	Fund	Non-mutual		0.4000	0.4000	0.4000	-	Significant	0.4000	YES	_	Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00794		Igloo Regeneration (Butcher Street) Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00795		Igloo Regeneration (General Partner) Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000	-	Dominant	0.5000	YES	_	Method 1: Adjusted equity method Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00796		Igloo Regeneration (Nominee) Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000	-	Dominant	0.5000	YES	_	Method 1: Adjusted equity method Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00797		Igloo Regeneration Developments (General Partner) Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00798	SPECIFIC	Igloo Regeneration Developments (Nominees) Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YE0Y5B0IB8SM07EG9G81GB00949	SPECIFIC	Igloo Regeneration Property Unit Trust	Other	Fund	Non-mutual		0.5000	1 0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81FR00548		AVIVA FRANCE VENTURES	Other	Société par actions	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
					simplifiée		Fire a sial Consists Constitution									
	213800EWPH8ER7FTBR95	LEI	Insurance Agent Service Inc.	Other	Private Corporation	Non-mutual	Financial Services Commission of Ontario	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	213800TS9W8PN1Y94J21	LEI	IQUO Limited	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Limited by Shares	Non-mutual		0.6667	1.0000	0.6667		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81GB00799		Irongate House Nominee 1 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES	-	Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00800		Irongate House Nominee 2 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00914		Irongate House LP	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81JE00797	-	Irongate House Unit Trust	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
1	YF0Y5B0IB8SM0ZFG9G99NO00789		Kongsgard Alle 20 AS	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81FR00566		Kroknet S. a. r. l.	Other	Private Company	Non-mutual		0.9000	1.0000	0.9000		Dominant	0.9000	YES		Method 1: Adjusted equity method
	213800WX34B26U97VY16	LEI	Lancashire and Yorkshire Reversionary Interest Company Limited /The	Non-regulated undertaking carrying out financial activities as defined in Article 1 (52) of Delegated Regulation (EU) 20	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81IE11005	SPECIFIC	Legal & General ICAV – L&G Multi-Index EUR III Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81IE11006	SPECIFIC	Legal & General ICAV – L&G Multi-Index EUR IV Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81IE11007	SPECIFIC	Legal & General ICAV – L&G Multi-Index EUR V Fund	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81BM00001	SPECIFIC	Lend Lease JEM Partners Fund Limited	Other	Limited by Shares	Non-mutual		0.2250	0.2250	0.2250		Significant	0.2250	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81PL00149	SPECIFIC	Life Plus Sp. z o.o.	Other	SPÓŁKA Z OGRANICZONA ODPOWIEDZIALNOSCIA (Sp z o.o.)	Non-mutual		0.9000	1.0000	0.9000		Dominant	0.9000	YES		Method 1: Adjusted equity method

										Criteria of	influence				the scope of upervision	Group solvency calculation
Country	Identification code of the undertaking	Type of code of the ID of the undertaking	: Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting rights	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
В	YF0Y5B0IB8SM0ZFG9G81GB00801	SPECIFIC	Lime Property Fund (General Partner) Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00802	SPECIFIC	Lime Property Fund (Nominee) Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	213800S774FDVGM56C45	LEI	London and Manchester Group Limited	Insurance holding company as defined in Article 212(1) (f) of Directive 2009/138/EC	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
?	2138001KKGAO2TDUKC39	LEI	Locamat SAS	Other	Société par actions simplifiée	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
?	YF0Y5B0IB8SM0ZFG9G81FR00554	SPECIFIC	Logipierre 1	Other	Société civile de placement immobilier à capital variable	Non-mutual		0.4446	0.4446	0.4446		Significant	0.4446	YES		Method 1: Adjusted equity method
R	YF0Y5B0IB8SM0ZFG9G81FR00571	SPECIFIC	Logiprime Europe	Other	Société par actions simplifiée	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
В	YF0Y5B0IB8SM0ZFG9G81GB01700	SPECIFIC	Lombard (London) 1 Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB01701	SPECIFIC	Lombard (London) 2 Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00008	SPECIFIC	London and Edinburgh Insurance Company Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	213800UUBTRFTS9WVU45	LEI	LUC Holdings Limited	Other	Limited by Shares	Non-mutual		0.2000	0.2000	0.2000		Significant	0.2000	YES		Method 1: Adjusted equity method
1	YF0Y5B0IB8SM0ZFG9G81FR70002	SPECIFIC	MAMANN (SACAF)	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Société par actions simplifiée	Non-mutual		0.9999	1.0000	0.9999		Dominant	1.0000	YES		Method 1: Full consolidation
3	YF0Y5B0IB8SM0ZFG9G81GB00805	SPECIFIC	Matthew Parker Street (Nominee No 1) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00806	SPECIFIC	Matthew Parker Street (Nominee No 2) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81IE11009	SPECIFIC	Mercer Diversified Retirement Fund	Other	Fund	Non-mutual		0.2660	0.2660	0.2660		Significant	0.2660	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB01147	SPECIFIC	Acre Platforms Limited	Other	Limited by Shares	Non-mutual		0.4000	0.4000	0.4000		Significant	0.4000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00810	SPECIFIC	Mill NU Properties Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00811	SPECIFIC	Mortimer Street Associated Co 1 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00812	SPECIFIC	Mortimer Street Associated Co 2 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00813	SPECIFIC	Mortimer Street Nominee 1 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00814	SPECIFIC	Mortimer Street Nominee 2 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00815	SPECIFIC	Mortimer Street Nominee 3 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G89LU44081	SPECIFIC	MPS L014 S.à r.l.	Other	Société à Responsabilité Limitée (SARL)	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	969500CGJ8U85YXKYF85	LEI	Myria Asset Management	Other	Société par actions simplifiée	Non-mutual	Autorité des marchés financiers	0.7429	1.0000	0.7429		Dominant	0.7429	YES		Method 1: Sectoral rules
	21380031KS3KAVV9V969	LEI	National Home Warranty Group Inc.	Other	Private Corporation	Non-mutual	Alberta Insurance Council	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
			Nautimax Ltd.	Other	Private Corporation	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	21380059LV9E7JP2W316	LEI	Navigator Investment Services Limited	Credit institution, investment firm and financial institution	Public Company	Non-mutual	Investment Management Association of Singapore	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
	YF0Y5B0IB8SM0ZFG9G81GB00122		NDF Administration Limited	Other	Limited by Shares	Non-mutual	Financial Conduct Authority	0.3333	0.3333	0.3333		Significant	0.3333	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB07038		Neos Ventures Limited	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Limited by Shares	Non-mutual		0.9127	1.0000	0.9127		Dominant	0.9127	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00817		New Broad Street House Nominee 1 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00818		New Broad Street House Nominee 2 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81JE00801		New Broad Street House Unit Trust	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00915		New Broad Street House LP	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81FR70001	SPECIFIC	Newco ZELMIS	Other Other	Société Anonyme Société par actions	Non-mutual Non-mutual		0.9972	1.0000	0.9972		Dominant Dominant	0.9972 0.9999	YES		Method 1: Adjusted equity method Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB07171	SPECIFIC	NEWCO 5	Other	simplifiée Société par actions	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
	YE0Y5B0IB8SM07EG9G81ER70005	CDECIEIC	NEWCO 6	Other	simplifiée	Manager de 1		0 9972	1 0000	0.0070		Descion 1	0.0070	VEC		saude and a court court and a court of the court
	YF0Y5B0IB8SM0ZFG9G81FR70005 YF0Y5B0IB8SM0ZFG9G81GB00819		New Energy Residential Solar Limited	Other Other	Société Anonyme Fund	Non-mutual Non-mutual		1 0000	1.0000	0.9972		Dominant	0.9972	YES		Method 1: Adjusted equity method Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00822 YF0Y5B0IB8SM0ZFG9G81GB00825		Norton Energy SLS Limited  Norwich Union (Shareholder GP) Limited	Other Other	Fund Fund	Non-mutual Non-mutual		1.0000	1.0000	1.0000		Dominant Dominant	1.0000	YES		Method 1: Adjusted equity method Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00825 YF0Y5B0IB8SM0ZFG9G81GB00022		Norwich Union (Shareholder GP) Limited  Norwich Union Life Insurance Company Limited/The	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00826	SDECIEIC	NU 3PS Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00826 YF0Y5B0IB8SM0ZFG9G81GB00828		NU Developments (Brighton) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00828		NU Local Care Centres	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
	0.30010034021 030010000031	Si LUII IC	(Chichester No.1) Limited	Other	runu	. von mutudt		1.0000	1.0000	1.0000		Jonanant	1.0000	ILS		ca.ou 1. rujusicu equity method

Inclusion in the scope of

### \$.32.01.22 Undertakings in the scope of the Group

										Criteria of	influence				the scope of upervision	Group solvency calculation
ountry	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting rights	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
	YF0Y5B0IB8SM0ZFG9G81GB00832	SPECIFIC	NU Local Care Centres (Chichester No.2) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00833	SPECIFIC	NU Local Care Centres (Chichester No.3) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00834	SPECIFIC	NU Local Care Centres (Chichester No.4) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity methor
	YF0Y5B0IB8SM0ZFG9G81GB00835	SPECIFIC	NU Local Care Centres (Chichester No.5) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00836	SPECIFIC	NU Local Care Centres (Chichester No.6) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00829	SPECIFIC	NU Library For Brighton Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00830	SPECIFIC	NU Local Care Centres (Bradford) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity methor
	YF0Y5B0IB8SM0ZFG9G81GB00837	SPECIFIC	NU Local Care Centres (Farnham) Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00840	SPECIFIC	NU Offices for Redcar Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00845	SPECIFIC	NUPPP (Care Technology and Learning Centres) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity methor
	YF0Y5B0IB8SM0ZFG9G81GB00846	SPECIFIC	NUPPP (GP) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00848		NUPPP Nominees Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00842		NU Schools for Redbridge Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00843		NU Technology and Learning Centres (Hackney) Limited	Other	Fund	Non-mutual		1.0000	1,0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity methor
	YF0Y5B0IB8SM0ZFG9G81FR00312		Obligations 5-7 M	Other	Fund	Non-mutual		0.8130	1.0000	0.8130		Dominant	0.8130	YES		Method 1: Adjusted equity methor
	549300T5CO5TX15CPK15	LEI	The Ocean Marine Insurance Company Limited	Non life insurance undertaking	Limited by Shares	Non-mutual	Prudential Regulation	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	2138004LS49VE7I7XP35	LEI	OIS Ontario Insurance Service Limited	Other	Private Corporation	Non-mutual	Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
					· ·		of Ontario									
	213800GB3M485E5SIJ50	LEI	Opal Information Systems Limited	Other	Limited by Shares	Non-mutual		0.2852	0.2852	0.2852		Significant	0.2852	YES		Method 1: Adjusted equity metho
	2138000DSFH727DWUG33	LEI	Opal (UK) Holdings Limited	Other	Limited by Shares	Non-mutual		0.2852	0.2852	0.2852		Significant	0.2852	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01728		Opus Park Management Limited	Other	Limited by Guarantee	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB01146		Origo Services Limited	Other	Limited by Shares	Non-mutual		0.2161	0.2161	0.2161		Significant	0.2161	YES		Method 1: Adjusted equity metho
	213800UMRAY8892OMK28	LEI	Outsourced Professional Administration Limited	Other	Limited by Shares	Non-mutual		0.2852	0.2852	0.2852		Significant	0.2852	YES		Method 1: Adjusted equity methor
	YF0Y5B0IB8SM0ZFG9G81GB01104	SPECIFIC	Paddington Central III (GP) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB01730	SPECIFIC	Paddington Central III LP	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity methor
	2138002NLLYGLUK8WE42	LEI	Paragon Insurance Company Guernsey Limited	Other	Limited by Shares	Non-mutual	Guernsey Financial Services Commission	0.4652	0.4652	0.4652		Significant	0.4652	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81BE00001	SPECIFIC	Parnasse Square Invest	Other	Société anonyme/Naamloze vennootschap (SA/NV)	Non-mutual		0.9938	1.0000	0.9938		Dominant	0.9938	YES		Method 1: Adjusted equity methor
	549300CO16LZRCVM0U19	LEI	Peak Re Designated Activity Company	Life insurance undertaking	Limited by Shares	Non-mutual	Central Bank of Ireland	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81GB00851	SPECIFIC	Pegasus House and Nuffield House Nominee 1 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00852	SPECIFIC	Pegasus House and Nuffield House Nominee 2 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00916	SPECIFIC	Pegasus House and Nuffield House LP	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81JE00796	SPECIFIC	Pegasus House and Nuffield House Unit Trust	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity methor
	YF0Y5B0IB8SM0ZFG9G81IT00101	SPECIFIC	Petunia Spa	Other	Societá per Azioni (SpA)	Non-mutual	Banca D'Italia	0.5100	1.0000	0.5100		Dominant	0.5100	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81FR00555	SPECIFIC	Pierrevenus	Other	Société civile de placement immobilier à capital variable	Non-mutual		0.7441	1.0000	0.7441		Dominant	0.7441	YES		Method 1: Adjusted equity methor
	549300PMLQBE19M15F61	LEI	Pilot Insurance Company	Non life insurance undertaking	Private Corporation	Non-mutual	Office of the Superintendent of Financial Institutions	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81GB01141	SPECIFIC	Premier Mortgage Service Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity methor
	213800Q93FUZEKDNTD30	LEI	Polaris U.K. Limited	Other	Limited by Shares	Non-mutual		0.3852	0.3852	0.3852		Significant	0.3852	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81PL00151	SPECIFIC	Porowneo.Pl Sp. Z O.O.	Other	SPÓŁKA Z OGRANICZONA ODPOWIEDZIALNOSCIA (Sp.z.o.o.)	Non-mutual		0.9000	1.0000	0.9000		Dominant	0.9000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81GB00853	SPECIFIC	Porth Teigr Management Company Limited	Other	Limited by Shares	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity metho
	YF0Y5B0IB8SM0ZFG9G81FR00563		Primotel Europe	Other	Société Anonyme	Non-mutual		0.9938	1.0000	0.9938		Dominant	0.9938	YES		Method 1: Adjusted equity metho
	213800O61I4R6LJPOK95	LEI	Professional Advisory Holdings Ltd.	Other	Public Company	Non-mutual		0.9338	1.0000	0.9338		Dominant	0.9338	YES		Method 1: Adjusted equity metho
	213800E8WG5HVYH65Y88	LEI	Professional Investment Advisory Services Pte Ltd	Credit institution, investment	Private Company	Non-mutual	Monetary Authority of	0.9242	1.0000	0.9242		Dominant	0.9242	YES		Method 1: Adjusted equity metho Method 1: Sectoral rules
	YF0Y5B0IB8SM0ZFG9G81DE70000		PROJEKTGESELLSCHAFT HAFENSPITZE	firm and financial institution  Other	Gesellschaft mit	Non-mutual	Singapore	0.9431	1.0000	0.9242		Dominant	0.9431	YES		Method 1: Adjusted equity metho
	II 012P01B02M07LG3G0TDF10000	STECIFIC	FROJENIGESELESCHAFT HAFENSFILZE	Other	beschränkter Haftung (GmbH)	Non-mutual		0.3431	1.0000	0.9451		DOMINIANT	0.9431	153		metriou 1. Aujusteu equity metrioi

\$.32.01.22 Undertakings in the scope of the Group

										Criteria of	influence			Inclusion in Group su	the scope of	Group solvency calculation
Country	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting	Other	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
A	YF0Y5B0IB8SM0ZFG9G81CA70007	SPECIFIC	Prolink Insurance Inc.	Other	Private Corporation	Non-mutual	Registered Insurance Brokers of Ontario	0.3433	0.3433	0.3433		Significant	0.3433	YES		Method 1: Adjusted equity method
1	213800RODUR1B5CAL145	LEI	PT Astra Aviva Life	Composite undertaking	Private Company	Non-mutual	Menteri Hukum dan Hak Asasi Manusia Republik Indonesia	0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
В	YF0Y5B0IB8SM0ZFG9G81GB00854	SPECIFIC	Quantum Property Partnership (General Partner) Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00855	SPECIFIC	Quantum Property Partnership (Nominee) Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00856	SPECIFIC	Quarryvale One Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00857	SPECIFIC	Quarryvale Three Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81JE00791	SPECIFIC	Quantum Unit Trust	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	54930085R8U8HOG2DK36	LEI	RAC Pension Trustees Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81DE00552	SPECIFIC	Reschop Carré Hattingen GmbH	Other	Fund	Non-mutual		0.9500	1.0000	0.9500		Dominant	0.9500	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81DE00553	SPECIFIC	Reschop Carré Marketing GmbH	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00872		Rugby Radio Station (General Partner) Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
1	YF0Y5B0IB8SM0ZFG9G81GB00873	SPECIFIC	Rugby Radio Station (Nominee) Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	213800RBUXTOSUDEN413	LEI	Sesame Limited	Credit institution, investment firm and financial institution	Limited by Shares	Non-mutual	Financial Conduct Authority	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Sectoral rules
	YF0Y5B0IB8SM0ZFG9G81FR70011	SPECIFIC	SACAF	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Société par actions simplifiée	Non-mutual		0.9999	1.0000	0.9999		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81DE00554	SPECIFIC	Sachsenfonds GmbH	Other	Fund	Non-mutual		0.9836	1.0000	0.9836		Dominant	0.9836	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81ES00003	SPECIFIC	San Ramon Hoteles	Other	Sociedad de responsabilidad limitada (SRL)	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
1	YF0Y5B0IB8SM0ZFG9G81LU00625	SPECIFIC	Sapphire Ile de France 1 S.à r.l.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00626	SPECIFIC	Sapphire Ile de France 2 S.à r.l.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81FR00529	SPECIFIC	Sapphire Ile de France S.C.I.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB07172	SPECIFIC	SCI CAMPUS MEDICIS ST DENIS	Other	Société civile immobilière (SCI)	Non-mutual		0.3000	0.3000	0.3000		Significant	0.3000	YES		Method 1: Adjusted equity method
	969500PMXFVH4PD2WC96	LEI	SCI Campus Rimbaud St Denis	Other	Société civile immobilière (SCI)	Non-mutual		0.3000	0.3000	0.3000		Significant	0.3000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81FR00572	SPECIFIC	SCI La Coupole Des Halles	Other	Société civile immobilière (SCI)	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81FR00624	SPECIFIC	SCI Pergola	Other	Société civile immobilière (SCI)	Non-mutual		0.9979	1.0000	0.9979		Dominant	0.9979	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81FR00551		SCI Pesaro	Other	Société civile immobilière (SCI)	Non-mutual		0.7948	1.0000	0.7948		Dominant	0.7948	YES		Method 1: Adjusted equity method
	213800P3H6VP4IE2TA21	LEI	Stonebridge Cross Management Limited	Other	Limited by Guarantee	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	213800XGCRNUVFL6YA32	LEI	Scottish & York Insurance Co. Limited	Non life insurance undertaking	Private Corporation	Non-mutual	Office of the Superintendent of Financial Institutions	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81FR00389	SPECIFIC	SOCIETE CIVILE IMMOBILIERE PLEYEL R2	Other	Société civile immobilière (SCI)	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81FR00557	SPECIFIC	Selectipierre – Société Civile	Other	Société civile immobilière (SCI)			0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81FR00556	SPECIFIC	SELECTINVIE Société Civile Immobilière	Other	Société civile de placement immobilier à capital variable	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
	213800F9V6ZECUV2I443	LEI	Aviva Agency Services Inc.	Other	Private Corporation	Non-mutual	Autorité des Marchés Financiers	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81GB00876		Serviced Offices UK GP Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
	213800NVJ6D5GDJ7DN26	LEI	Sesame Group India Private Limited	Other	Private Company	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
	213800HMXWRSS9ZJ4D73	LEI	Sesame Bankhall Group Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	213800SIS1U8O6VJJ697	LEI	Sesame General Insurance Services Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB01058	SPECIFIC	Living in Retirement Limited	Other	Limited by Shares	Non-mutual		0.4652	0.4652	0.4652		Significant	0.4652	YES		Method 1: Adjusted equity method
	96950093NU96X1HBE729	LEI	Sirius	Other	Fund	Non-mutual		0.9930	1.0000	0.9930		Dominant	0.9930	YES		Method 1: Adjusted equity method
	213800B9OO4OQ68FOV67	LEI	SB Loan Administration Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
				Other				1.0000	1.0000	1.0000	_		1.0000	YES		

S.32.01.22 Undertakings in the scope of the Group

								Criteria of influence			Inclusion in the scope of Group supervision		e of Group solvency calculation			
Country	Identification code of the undertaking	Type of code of the ID of the undertaking	: Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting rights	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
3B	YF0Y5B0IB8SM0ZFG9G81GB01729	SPECIFIC	Friends SL Nominees Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB01707	SPECIFIC	Undershaft SLPM Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3B	YF0Y5B0IB8SM0ZFG9G81GB00104	SPECIFIC	Friends SLUA Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G81FR00549	SPECIFIC	Societe Concessionaire des Immeubles de la Pepiniere	Other	Société Anonyme	Non-mutual		0.9998	1.0000	0.9998		Dominant	0.9998	YES		Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G81FX70001	SPECIFIC	Société Civile Immobilière « CARPE DIEM »	Other	Société civile immobilière (SCI)	Non-mutual		0.4999	0.4999	0.4999		Significant	0.4999	YES		Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G81FR00544	SPECIFIC	Societe Civile Immobiliere Charles Hermite	Other	Société civile immobilière (SCI)	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G81FR00558	SPECIFIC	Societe Civile Immobiliere Montaigne	Other	Société civile immobilière (SCI)	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G81FR00568	SPECIFIC	Société Civile Immobilière Thomas Edison	Other	Société civile immobilière (SCI)	Non-mutual		0.4999	0.4999	0.4999		Significant	0.4999	YES		Method 1: Adjusted equity method
FR	YF0Y5B0IB8SM0ZFG9G81FR00560	SPECIFIC	Société Française de Gestion et d'Investissement	Other	Société d'investissement à capital fixe-SA (SICAF)	Non-mutual	Autorité des marchés financiers	0.6695	1.0000	0.6695		Dominant	0.6695	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00878		Solar Clean Energy Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	213800EWQSA9QGOT3X46	LEI	Solus (London) Limited	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
GB	YF0Y5B0IB8SM0ZFG9G81GB00881	SPECIFIC	Southgate General Partner Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00882	SPECIFIC	Southgate LP (Nominee 1) Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
JE	YF0Y5B0IB8SM0ZFG9G81JE00588	SPECIFIC	Southgate Unit Trust	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
3B	YF0Y5B0IB8SM0ZFG9G81GB00883	SPECIFIC	Southgate LP (Nominee 2) Limited	Other	Limited by Shares	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
БB	YF0Y5B0IB8SM0ZFG9G81GB00894	SPECIFIC	The Square Brighton Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3B	213800634C1GHSJAB594	LEI	Sesame Bankhall Valuation Services Limited	Other	Limited by Shares	Non-mutual		0.7500	1.0000	0.7500		Dominant	0.7500	YES		Method 1: Adjusted equity method
3B	213800U4N8B1RZ3NDP78	LEI	Sesame Services Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
E	8KEPZEVXKHU6G2R0SD14	LEI	SSgA GRU Euro Index Equity Fund	Other	Fund	Non-mutual		0.4610	0.4610	0.4610		Significant	0.4610	YES		Method 1: Adjusted equity method
E	YF0Y5B0IB8SM0ZFG9G81IX700514	SPECIFIC	State Street IUT Balanced Fund S30	Other	Fund	Non-mutual		0.3120	0.3120	0.3120		Significant	0.3120	YES		Method 1: Adjusted equity method
3B	YF0Y5B0IB8SM0ZFG9G99LU00786	SPECIFIC	Station Road Cambridge LP	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
3B	YF0Y5B0IB8SM0ZFG9G81GB01706	SPECIFIC	Stichting European Secondary Infrastructure Credit	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00943	SPECIFIC	SUE Developments Limited Partnership	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00884	SPECIFIC	SUE GP LLP	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00885	SPECIFIC	SUE GP Nominee Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00919	SPECIFIC	Swan Valley Management Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
CA	21380078QKU7K8SUNV20	LEI	S&Y Insurance Company	Non life insurance undertaking	Private Corporation	Non-mutual	Office of the Superintendent of Financial Institutions	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
ЗB	213800VKR8VVX6OFCA23	LEI	Synergy Financial Products Limited	Other	Limited by Shares	Non-mutual		0.2852	0.2852	0.2852		Significant	0.2852	YES		Method 1: Adjusted equity method
ЗB	YF0Y5B0IB8SM0ZFG9G81GB01056	SPECIFIC	Synergy Sunrise (Sentinel House) Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
БB	YF0Y5B0IB8SM0ZFG9G81GB01057	SPECIFIC	10-11 GNS Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
ЗB	2138007VNE6HST7YCR60	LEI	Tenet Business Solutions Limited	Other	Limited by Shares	Non-mutual		0.4652	0.4652	0.4652		Significant	0.4652	YES		Method 1: Adjusted equity method
3B	213800K81TDSHG5NZQ52	LEI	Tenet Client Services Limited	Other	Limited by Shares	Non-mutual		0.4652	0.4652	0.4652		Significant	0.4652	YES		Method 1: Adjusted equity method
5B	213800LDHNCD94HYTO39	LEI	Tenet Limited	Other	Limited by Shares	Non-mutual		0.4652	0.4652	0.4652		Significant	0.4652	YES		Method 1: Adjusted equity method
GB	213800Q2URHZPC181H78	LEI	Tenet Connect Limited	Other	Limited by Shares	Non-mutual	Financial Conduct Authority	0.4652	0.4652	0.4652		Significant	0.4652	YES		Method 1: Adjusted equity method
GB	21380089YAVOU765US98	LEI	Tenet Group Limited	Other	Limited by Shares	Non-mutual		0.4652	0.4652	0.4652		Significant	0.4652	YES		Method 1: Adjusted equity method
3B	2138008Z5VL5I7SQHW27	LEI	TenetLime Limited	Other	Limited by Shares	Non-mutual	Financial Conduct Authority	0.4652	0.4652	0.4652		Significant	0.4652	YES		Method 1: Adjusted equity method
3B	213800XT7PBSC4U42O44	LEI	TenetSelect Limited	Other	Limited by Shares	Non-mutual		0.4652	0.4652	0.4652		Significant	0.4652	YES		Method 1: Adjusted equity method
3B	213800YJRT3I88MTVZ07	LEI	TenetConnect Services Limited	Other	Limited by Shares	Non-mutual	Financial Conduct Authority	0.4652	0.4652	0.4652		Significant	0.4652	YES		Method 1: Adjusted equity method
ЗB	213800P46W22MDXEUS40	LEI	Tenet Financial Solutions Limited	Non-regulated undertaking carrying out financial activities as defined in Article 1 (52) of Delegated Regulation (EU) 20	Limited by Shares	Non-mutual		0.4652	0.4652	0.4652		Significant	0.4652	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00887	SPECIFIC	TGHC Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
JE	YF0Y5B0IB8SM0ZFG9G81GB00890	SPECIFIC	The Designer Retail Outlet Centres (Mansfield) Unit Trust	Other	Fund	Non-mutual		0.9700	1.0000	0.9700		Dominant	0.9700	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GX00890	SPECIFIC	The Designer Retail Outlet Centres (Mansfield) Limited Partnership	Other	Fund	Non-mutual		0.9700	1.0000	0.9700		Dominant	0.9700	YES		Method 1: Adjusted equity method

Inclusion in the scope of

\$.32.01.22 Undertakings in the scope of the Group

										Criteria of	influence				the scope of upervision	f Group solvency calculation
ountry	Identification code of the undertaking	Type of code of the ID of the undertaking	he	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	CO260
010	YF0Y5B0IB8SM0ZFG9G81GB00891		The Designer Retail Outlet Centres (York) Unit Trust	Other	Fund	Non-mutual	Cooso	0.9700	1.0000	0.9700	COZIO	Dominant	0.9700	YES	C0230	Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GX00891	SPECIFIC	The Designer Retail Outlet Centres (York) Limited Partnership	Other	Fund	Non-mutual		0.9700	1.0000	0.9700		Dominant	0.9700	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81GB00921	SPECIFIC	The Gobafoss Partnership	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	2138006MPUJZINSD3Y02	LEI	Gateway Specialist Advice Services Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81ES00002	SPECIFIC	To do real Estate Investment	Other	Sociedad de responsabilidad limitada (SRL)	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
	213800PRT8BYL8J9B441	LEI	Traders General Insurance Company	Non life insurance undertaking	Private Corporation	Non-mutual	Office of the Superintendent of Financial Institutions	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81GB01060	SPECIFIC	Tenet Platform Services Limited	Other	Limited by Shares	Non-mutual		0.4652	0.4652	0.4652		Significant	0.4652	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00895	SPECIFIC	Tyne Assets (No 2) Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00896	SPECIFIC	Tyne Assets Limited	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	213800Q5EQ3RDNYXII94	LEI	Aviva Lietuva (Joint Stock Ltd Life Insurance and Pension Co Aviva Lietuva)	Life insurance undertaking	Private Company	Non-mutual	Lietuvos bankas (Bank of Lithuania)	0.9000	1.0000	0.9000		Dominant	1.0000	YES		Method 1: Full consolidation
	YF0Y5B0IB8SM0ZFG9G81GB07158	SPECIFIC	UFF Capital Planète A	Other	Fund	Non-mutual		0.9540	1.0000	0.9540		Dominant	0.9540	YES		Method 1: Adjusted equity method
	969500YECIU6X5GOI365	LEI	UFF Cap Défensif	Other	Fund	Non-mutual		0.9990	1.0000	0.9990		Dominant	0.9990	YES		Method 1: Adjusted equity method
	9695008VGCM74RZMN463	LEI	UFF Cap Diversifié	Other	Fund	Non-mutual		0.4940	0.4940	0.4940		Significant	0.4940	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB07159	SPECIFIC	UFF Croissance PME A	Other	Fund	Non-mutual		0.9960	1.0000	0.9960		Dominant	0.9960	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB07160	SPECIFIC	UFF Emergence A	Other	Fund	Non-mutual		0.9870	1.0000	0.9870		Dominant	0.9870	YES		Method 1: Adjusted equity method
	9695006Y7IGF2ESXBG32	LEI	CGP Entrepreneurs	Other	Société par actions simplifiée	Non-mutual		0.7429	1.0000	0.7429		Dominant	0.7429	YES		Method 1: Sectoral rules
	9695000CTGVT005WQ905	LEI	UFF Euro-Valeur 0-100 A	Other	Fund	Non-mutual		0.9780	1.0000	0.9780		Dominant	0.9780	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB07168	SPECIFIC	UFF Euro Valeur A	Other	Fund	Non-mutual		0.9960	1.0000	0.9960		Dominant	0.9960	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB07161		UFF Europe Opportunités A	Other	Fund	Non-mutual		0.9880	1.0000	0.9880		Dominant	0.9880	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB07162		UFF Global Obligations A	Other	Fund	Non-mutual		0.9640	1.0000	0.9640		Dominant	0.9640	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB07163		UFF Global Foncières A	Other	Fund	Non-mutual		0.9790	1.0000	0.9790		Dominant	0.9790	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB07165		UFF Obligations 5-7 A	Other	Fund	Non-mutual		0.9850	1.0000	0.9850		Dominant	0.9850	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB07166		UFF Rendement Diversifié A	Other	Fund	Non-mutual		0.9980	1.0000	0.9980		Dominant	0.9980	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB07167		UFF Sélection Premium A	Other	Fund	Non-mutual		0.9770	1.0000	0.9770		Dominant	0.9770	YES		Method 1: Adjusted equity method
-	YF0Y5B0IB8SM0ZFG9G81FR00398		Ufifrance Immobilier	Other	Fund	Non-mutual		0.2040	0.2040	0.3770		Significant		YES		Method 1: Adjusted equity method  Method 1: Adjusted equity method
	96950093TUTPM3JQ9P57	LEI	Ufifrance Gestion	Other	Société par actions simplifiée	Non-mutual		0.7429	1.0000	0.7429		Dominant	0.7429	YES		Method 1: Sectoral rules
	969500OY3W9YTD4ONN52	LEI	Ufifrance Patrimoine	Other	Société par actions simplifiée	Non-mutual		0.7429	1.0000	0.7429		Dominant	0.7429	YES		Method 1: Sectoral rules
5	213800KJUKBZ3XQGP218	LEI	UKP Holdings Inc.	Other	Corporation	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81GB00097	SPECIFIC	Undershaft (NULLA) Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	213800R324WNWH8U7X39	LEI	Undershaft Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	969500FYD3E89HF4LW17	LEI	Union Financière de France Banque	Credit institution, investment firm and financial institution		Non-mutual	Autorité de Contrôle Prudentiel et de Resolution		1.0000	0.7429		Dominant	0.7429	YES		Method 1: Sectoral rules
	YF0Y5B0IB8SM0ZFG9G81FR00561	SPECIFIC	Victoire Immo 1 – Société Civile	Other	Société civile de placement immobilier à capital variable	Non-mutual		0.9997	1.0000	0.9997		Dominant	0.9997	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81LU00630	SPECIFIC	Victor Hugo 1 S.à r.l.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
3	YF0Y5B0IB8SM0ZFG9G81BB00011	SPECIFIC	Victoria Reinsurance Company Ltd.	Reinsurance undertaking	Private Company	Non-mutual	Office of the Superintendent of Insurance and Pensions, Ministry of Finance, Bridgetown, Barbados	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	213800XNW7Q9I58RUX75	LEI	Aviva Vietnam Life Insurance Company Limited	Life insurance undertaking	Private Company	Non-mutual	Insurance Supervisory Authority – Vietnam Ministry of Finance	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
	213800Q2O9US1IM4TI06	LEI	Vip Conseils	Ancillary services undertaking as defined in Article 1 (53) of Delegated Regulation (EU) 2015/35	Société Anonyme	Non-mutual		0.3404	0.3404	0.3404		Significant	0.3404	YES		Method 1: Adjusted equity method
	YF0Y5B0IB8SM0ZFG9G81FR00562	SPECIFIC	Voltaire S.A.S	Other	Société par actions simplifiée	Non-mutual		0.9999	1.0000	0.9999		Dominant	0.9999	YES		Method 1: Adjusted equity method
1	213800BMVYWVYRF9CC93	LEI	Wayfarer Insurance Brokers Limited	Other	Private Corporation	Non-mutual	Registered Insurance Brokers of Ontario	1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Full consolidation
	21380042RYPHF15XCM29 YF0Y5B0IB8SM0ZFG9G81GB01190	LEI	Winslade Investments Inc. Wealthify Group Limited	Other Other	Corporation Limited by Shares	Non-mutual Non-mutual		1.0000	1.0000 1.0000	1.0000 0.6000		Dominant Dominant	1.0000 0.6000	YES YES		Method 1: Adjusted equity method Method 1: Adjusted equity method

\$.32.01.22 Undertakings in the scope of the Group

								Criteria of influence					Group supervision		Group solvency calculation	
Country	Identification code of the undertaking	Type of code of the ID of the undertaking	f Legal Name of the undertaking	Type of undertaking	<b>Legal form</b>	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% used for the establishment of consolidated accounts	% voting rights	Other criteria	Level of influence	Proportional share used for group solvency calculation	YES/NO	Date of decision if art. 214 is applied	Method used and under method 1, treatment of the undertaking
C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0210	C0220	C0230	C0240	C0250	C0260
GB	YF0Y5B0IB8SM0ZFG9G81GB07137	SPECIFIC	WEALTHIFY LIMITED	Other	Limited by Shares	Non-mutual	Financial Conduct Authority	0.6000	1.0000	0.6000		Dominant	0.6000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00111	SPECIFIC	Welsh Insurance Corporation Limited/The	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	213800VYHXZ3Y5YXOO05	LEI	Friends Life WL Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00918	SPECIFIC	W Nine LP	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00900	SPECIFIC	W Nine Nominee 1 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00901	SPECIFIC	W Nine Nominee 2 Limited	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
JE	YF0Y5B0IB8SM0ZFG9G81JE00793	SPECIFIC	W Nine Unit Trust	Other	Fund	Non-mutual		0.5000	1.0000	0.5000		Dominant	0.5000	YES		Method 1: Adjusted equity method
PL	YF0Y5B0IB8SM0ZFG9G81PL00703	SPECIFIC	Wroclaw BC Sp Z o.o.	Other	Fund	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method
GB	YF0Y5B0IB8SM0ZFG9G81GB00092	SPECIFIC	The Yorkshire Insurance Company Limited	Other	Limited by Shares	Non-mutual		1.0000	1.0000	1.0000		Dominant	1.0000	YES		Method 1: Adjusted equity method

## F.3 Directors' certificate

We acknowledge our responsibility for preparing the Group Solvency and Financial Condition Report (SFCR) of Aviva plc at 31 December 2019 in all material respects in accordance with the PRA Rules and the Solvency II Regulations, and the approvals, determinations and modifications listed in section F.4.

The Board is satisfied that to the best of its knowledge and belief:

- a) throughout the financial year in question, the Group has complied in all material respects with the requirements of the PRA Rules and the Solvency II Regulations as applicable at the level of the Group and with the approvals, determinations and modifications listed in section F.4; and
- b) it is reasonable to believe that in respect of the period from 31 December 2019 to the date of the publication of the SFCR, the Group has continued so to comply and that it will continue so to comply for the remainder of the financial year to 31 December 2020.

**Jason Windsor** Chief Financial Officer 01 May 2020

# F.4 Approvals, determinations and modifications

The following approvals, determinations and modifications apply for Aviva plc at 31 December 2019:

Approvals		
Approval	Legal entity	PRA/Regulator reference
Matching adjustment in the calculation of technical provisions	Aviva Life & Pension UK Limited (UKLAP) Aviva International Insurance Limited (AII)	24 August 2017: 4657691 6 August 2019: 5143685
Matching Adjustment – Merger of Friends Life limited MAPs	Aviva Life & Pension UK Limited (UKLAP)	8 August 2019: 5143674
Volatility adjustment in the calculation of	Aviva Life & Pension UK Limited (UKLAP)	24 August 2017: 4658257
technical provisions	Aviva International Insurance Limited (AII)	30 November 2015: 2200426
'	Aviva Insurance Limited (AIL), Ocean Marine	30 November 2015: 2191473, 2191475
	& Gresham	&2191491
	Aviva Life & Pensions Ireland DAC	26 November 2019
Transitional measures on technical	Aviva Life & Pension UK Limited (UKLAP)	December 2017 reset: 4850459
provisions		December 2019 reset: 5418763
	Aviva International Insurance Limited (AII)	December 2017 reset: 4850458 December 2019 reset: 5400813
Partial internal model in the calculation of	5 December 2015: IMAP approval for Aviva	5 December 2015: 2243186, 2243951,
the SCR	Group SCR including UKLAP, UKA, AIL, Ocean Marine and AII	2243953, 2243957 and 2243963
	1 March 2016: An extension of scope to	1 March 2016: 2429705, 2429709, 2429715,
	include France Life and major change	2429728 and 2429745
	approval of the partial internal model	2 123 120 und 2 1231 13
	integration technique	
	23 March 2017: An extension of scope to	23 March 2017: 4105641, 4105642, 4105643,
	include Friends Life non-profit business.	4105644, 3605395, 4239664, 4239666
	Major changes approved included revised SII	
	Model Governance Business Standard, credit	
	hedge calibrations, Canadian General	
	Insurance correlations, equity calibrations,	
	asset side credit model, French switch-loss	
	contracts and other cumulative Group-wide	
	changes	
	21 December 2017: An extension in scope to	21 December 2017: 4800491, 4800492,
	include the modelling of Group currency risk	4800493 4800494, 4800495, 4800496,
	and Irish Life Business in UKLAP. Major	4800497
	changes approved included changes relating	
	to the modelling of operational risk,	
	commercial mortgages and lapse risk for	
	UKLAP; allowance of modelling of RBC	
	Insurance Canada; allowing dynamic	
	volatility adjustment in respect of France Life	
	entities (for solo reporting only), new local model change policy, nominal interest rates,	
	interest rate volatility and expense risk for	
	France Life; and other cumulative Group-	
	wide changes	
	10 December 2018: Two extensions of scope	10 December 2018: 5090845,
	and one major change. The first extension of	5090844, 5090869, 4973445
	scope was to include the Friends Life with-	
	profits funds and a second to include the	
	calculation of Aviva Towarzystwo	
	Ubezpieczen na Zycie S.A. (i.e. Poland Life)	
	lapse, equity and interest rate risks'	
	contribution to the Group SCR. The major	
	change is to reflect at the Group level the use	
	of Dynamic Volatility Adjustment for Aviva Vie S.A. and Aviva Epargne Retraite S.A.	
		05.0
	25 October 2019: This approved application	25 October 2019: 5276051, 5276050,
	contained five major changes groupwide in	5276052, 5276048

	Business and	System of	Risk	Valuation for	Capital	Other
Summary	Performance	Governance	Profile	Solvency Purposes	Management	Information

Approval	Legal entity	PRA/Regulator reference	
	total. Two relating to an update o	f the	
	Interest Rate Calibration – one wit	th and one	
	without Aviva Towarzystwo Ubezr	oieczen na	
	Zycie S.A. One for a revised metho	odology to	
	model Matching Adjustment in St	ress for	
	UKLAP. One to update the Aviva G		
	Solvency II Model Governance Bus	•	
	Standard and one to update the F		
	Internal Model Change Policy for A		
	and AER.		

In Aviva plc, there are no ancillary own funds, 'non-standard' items in own funds, use of transitional measure on the risk-free interest rate, application of the duration-based equity risk sub-module for standard formula operations or application of undertaking specific parameters for standard formula operations.

### **Determinations**

Correspondence with the PRA in the first half of 2015 in respect of fungibility and transferability of own funds as set out in Article 330 of the Solvency II Delegated Acts.

### Modifications

There are no modifications. No permission has been sought for the following:

- Non-disclosure of information in the SFCR;
- A single Group-wide SFCR;
- Exclusion of entities from the scope of Group supervision; and
- Use of the deduction and aggregation method in the calculation of the Group SCR.

UK entities within the Group that fall below the small business threshold have not been audited during the period.

# F.5 Audit opinion

Report of the external independent auditors to the Directors of Aviva plc ('the Company') pursuant to Rule 4.1 (2) of the External Audit Part of the PRA Rulebook applicable to Solvency II firms

# Report on the Audit of the relevant elements of the Group Solvency and Financial Condition Report

### Opinion

Except as stated below, we have audited the following documents prepared by the Company as at 31 December 2019:

- The 'Valuation for solvency purposes' and 'Capital management' sections of the Group Solvency and Financial Condition Report of the Company as at 31 December 2019, ('the Narrative Disclosures subject to audit'); and
- Group templates S.02.01.02, S.22.01.22, S.23.01.22 and S.32.01.22 ('the Templates subject to audit').

The Narrative Disclosures subject to audit and the Templates subject to audit are collectively referred to as the 'relevant elements of the Group Solvency and Financial Condition Report'.

We are not required to audit, nor have we audited, and as a consequence do not express an opinion on the **Other information** which comprises:

- Information contained within the relevant elements of the Group Solvency and Financial Condition Report set out above which is, or derives from the Solvency Capital Requirement, as identified in the Appendix to this report;
- The 'Summary', 'Business and performance', 'System of Governance' and 'Risk profile' elements of the Group Solvency and Financial Condition Report;
- Group templates S.05.01.02, S.05.02.01 and S.25.02.22;
- Information calculated in accordance with the previous regime used in the calculation of the transitional measure on technical provisions, and as a consequence all information relating to the transitional measure on technical provisions as set out in the Appendix to this report;
- The written acknowledgement by management of their responsibilities, including for the preparation of the Group Solvency and Financial Condition Report ('the Directors' certificate'); and
- Information which pertains to an undertaking that is not a Solvency II undertaking and has been prepared in accordance with PRA rules other than those implementing the Solvency II Directive or in accordance with an EU instrument other than the Solvency II regulations ('the sectoral information') as identified in the Appendix to this report.

To the extent the information subject to audit in the relevant elements of the Group Solvency and Financial Condition Report includes amounts that are totals, sub-totals or calculations derived from the Other information, we have relied without verification on the Other information.

In our opinion, the information subject to audit in the relevant elements of the Group Solvency and Financial Condition Report of the Company as at 31 December 2019 is prepared, in all material respects, in accordance with the financial reporting provisions of the PRA Rules and Solvency II regulations on which they are based, as supplemented by the supervisory approvals and determinations detailed in section F.4: 'Approvals, determinations and modifications' of the Group Solvency and Financial Condition Report.

## **Basis for opinion**

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) including ISA (UK) 800 and ISA (UK) 805, and applicable law. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the relevant elements of the Group Solvency and Financial Condition Report section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the Group Solvency and Financial Condition Report in the UK, including the FRC's Ethical Standard as applied to public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the Directors' use of the going concern basis of accounting in the preparation of the Group Solvency and Financial Condition Report is not appropriate; or
- the Directors have not disclosed in the Group Solvency and Financial Condition Report any identified material uncertainties that may cast significant doubt about the Company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the Group Solvency and Financial Condition Report is authorised for issue.

However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the Company's ability to continue as a going concern.

# Emphasis of matter - basis of accounting

We draw attention to the 'Valuation for solvency purposes', 'Capital management' and 'Approvals, determinations and modifications' sections of the Group Solvency and Financial Condition Report, which describe the basis of accounting. The Group Solvency and Financial Condition Report is prepared in compliance with the financial reporting provisions of the PRA Rules and Solvency II regulations, and therefore in accordance with a special purpose financial reporting framework. The Group Solvency and Financial Condition Report is required to be published, and intended users include but are not limited to the Prudential Regulation Authority. As a result, the Group Solvency and Financial Condition Report may not be suitable for another purpose. Our opinion is not modified in respect of this matter.

### Other information

The directors are responsible for the Other information.

Our opinion on the relevant elements of the Group Solvency and Financial Condition Report does not cover the Other Information and we do not express an audit opinion or any form of assurance conclusion thereon.

In connection with our audit of the Group Solvency and Financial Condition Report, our responsibility is to read the Other Information and, in doing so, consider whether the Other Information is materially inconsistent with the relevant elements of the Group Solvency and Financial Condition Report, or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the relevant elements of the Group Solvency and Financial Condition Report 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 in this regard.

### Responsibilities of Directors for the Group Solvency and Financial Condition Report

The directors are responsible for the preparation of the Group Solvency and Financial Condition Report in accordance with the financial reporting provisions of the PRA rules and Solvency II regulations, which have been supplemented by the approvals and determinations made by the PRA under section 138A of FSMA, the PRA Rules and Solvency II regulations on which they are based, as detailed in section F.4: 'Approvals, determinations and modifications' of the Group Solvency and Financial Condition Report.

The directors are also responsible for such internal control as they determine is necessary to enable the preparation of a Group Solvency and Financial Condition Report that is free from material misstatement, whether due to fraud or error.

### Auditors' Responsibilities for the Audit of the relevant elements of the Group Solvency and Financial Condition Report

It is our responsibility to form an independent opinion as to whether the information subject to audit in the relevant elements of the Group Solvency and Financial Condition Report is prepared, in all material respects, in accordance with financial reporting provisions of the PRA Rules and Solvency II regulations on which they are based.

Our objectives are to obtain reasonable assurance about whether the relevant elements of the Group Solvency and Financial Condition Report 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 it 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 decision making or the judgement of the users taken on the basis of the Group Solvency and Financial Condition Report.

A further description of our responsibilities for the audit is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

This report, including the opinion, has been prepared for the Board of Directors of the Company in accordance with External Audit rule 2.1 of the Solvency II firms Sector of the PRA Rulebook and for no other purpose. We do not, in providing this report, accept or assume responsibility for any other purpose or to any other party save where expressly agreed by our prior consent in writing.

### Other matter

The Company has authority to calculate its Group Solvency Capital Requirement using a partial internal model ('the Model') approved by the Prudential Regulation Authority in accordance with the Solvency II Regulations. In forming our opinion (and in accordance with PRA Rules), we are not required to audit the inputs to, design of, operating effectiveness of and outputs from the Model, or whether the Model is being applied in accordance with the Company's application or approval order.

## Report on other legal and regulatory requirements

## **Sectoral information**

In our opinion, in accordance with Rule 4.2 of the External Audit Part of the PRA Rulebook, the sectoral information has been properly compiled in accordance with the PRA rules and EU instruments relating to that undertaking from information provided by members of the Group and the relevant insurance group undertaking.

### Other information

In accordance with Rule 4.1 (3) of the External Audit Part of the PRA Rulebook for Solvency II firms we are also required to consider whether the Other information is materially inconsistent with our knowledge obtained in the audit of the Company's statutory financial statements. 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 in this regard.

The engagement partner on the audit resulting in this independent auditors' report is Andrew Kail.

PricewaterhouseCoopers LLP Chartered Accountants London 1 May 2020

# Appendix – relevant elements of the Group Solvency and Financial Condition Report that are not subject to audit

The relevant elements of the Group Solvency and Financial Condition Report that are not subject to audit comprise:

- The following elements of Group template S.02.01.02:
- Row R0550: Technical provisions non-life (excluding health) risk margin
- Row R0590: Technical provisions health (similar to non-life) risk margin
- Row R0640: Technical provisions health (similar to life) risk margin
- Row R0680: Technical provisions life (excluding health and index-linked and unit-linked) risk margin
- Row R0720: Technical provisions Index-linked and unit-linked risk margin
- The following elements of Group template S.22.01.22
  - Column C0030 Impact of transitional on technical provisions
  - Row R0010 Technical provisions
- Row R0090 Solvency Capital Requirement
- The following elements of Group template S.23.01.22
  - Row R0020: Non-available called but not paid in ordinary share capital at group level
  - Row R0060: Non-available subordinated mutual member accounts at group level
  - Row R0080: Non-available surplus at group level
  - Row R0100: Non-available preference shares at group level
  - Row R0120: Non-available share premium account related to preference shares at group level
  - Row R0150: Non-available subordinated liabilities at group level
  - Row R0170: The amount equal to the value of net deferred tax assets not available at the group level
  - Row R0190: Non-available own funds related to other own funds items approved by supervisory authority
  - Row R0210: Non-available minority interests at group level
  - Row R0380: Non-available ancillary own funds at group level
  - Rows R0410 to R0440 Own funds of other financial sectors
  - Row R0680: Group SCR
- Row R0740: Adjustment for restricted own fund items in respect of matching adjustment portfolios and ring fenced funds
- Row R0750: Other non available own funds
- Elements of the Narrative Disclosures subject to audit identified as 'unaudited'.

### F.6 Additional information on the COVID-19 global pandemic

On 11 March 2020, the World Health Organization declared the outbreak of a strain of novel coronavirus disease, COVID-19, a global pandemic. Governments in affected areas have imposed a number of measures designed to contain the outbreak, including business closures, travel restrictions, stay at home orders and prohibition of gatherings and events. The spread of COVID-19 has resulted in a sharp economic downturn in jurisdictions in which the Group operates and the global economy more widely, as well as causing increased volatility and declines in financial markets. If the pandemic is prolonged, or further diseases emerge that give rise to similar effects, the adverse impact on the global economy could be deepened and result in further declines in financial markets.

As an insurance group Aviva is impacted by the COVID-19 pandemic through its insurance products, asset holdings as well as ongoing difficult conditions in the global financial markets and the economy generally. General insurance products are impacted as a result of disruption to business and travel insured by the Group; life protection products as a result of increased mortality; savings products as a result of potentially lower future premiums and higher future outflows; and income protection, critical illness and health insurance products as a result of increased morbidity, offset by a potential reduction in annuity payments. The Group is also keeping its underwriting, pricing and strategy under review given changes in the risk profile of future new business and expected future investments. The Group is also exposed to market and credit risk associated with the significant volatility in financial markets arising from COVID-19. The Group's balance sheet exposure has been reviewed and actions are being taken to further reduce the sensitivity to economic shocks. The Group continues to maintain strong solvency levels and expects to continue to meet its capital requirements. Since the onset of the pandemic the Group has remained operational, with key activities such as cash payments and transaction processing being maintained, IT systems remaining operational, and employees including frontline customer facing staff being supported to ensure that that we are there to support our customers when they need us most. Notwithstanding the Group's strong capital and liquidity position and the operational and financial actions that are being taken, deterioration in the situation could have further adverse implications arising from the impacts on financial markets, insurance exposures and operations.

Figures presented in the SFCR and the associated Quantitative Reporting Templates (QRTs) have been prepared based on conditions and best estimate assumptions at 31 December 2019 and have therefore not been adjusted for any impacts of COVID-19 including any impacts on technical provisions.

On 8 April 2020, the Board of Directors agreed to withdraw its recommendation to pay the 2019 final dividend to ordinary shareholders in June 2020. The Board of Directors expects to reconsider any distributions to ordinary shareholders in the fourth quarter of 2020. This decision was taken in the wake of the unprecedented challenges COVID-19 presents for businesses, households and customers, and the adverse and highly uncertain impact on the global economy. Regulatory authorities, including EIOPA, the PRA and regulators of other Aviva subsidiaries, have responded by publicly urging restraint on dividend payments by insurers to shareholders. In light of the significant uncertainties presented by COVID-19, the Board agreed with our regulators that it is prudent to suspend dividend payments at this time.

The following summarises the impact of COVID-19 on the information contained within sections A to E of the SFCR where this is considered relevant

## **Business and performance**

Information presented in Section A of this report represents the performance of the business as reported in the Group's financial statements for the 12-month period to 31 December 2019.

### System of governance

The Group's overarching risk management and internal control system is actively responding to the challenges of the COVID-19 outbreak and remains intact. Work is in progress in capturing some aspects of change to the control environment to make allowances for the operational constraints. Any moderations are being closely monitored and subject to appropriate governance.

Government travel restrictions and social distancing measures in our major markets have required us to implement contingency plans and changes to some of our operational processes to ensure continued uninterrupted service to our customers, and to protect staff, while minimising the impact on the quality of service provided. These plans involve almost all of our staff being able to work from home, including customer contact centre staff. The changes to operational processes that have been implemented have been designed to ensure customer service, data protection and staff well-being risks are at a level accepted by Management.

### Risk profile

The current process for monitoring the risks, the risk-mitigation techniques in place and the material concentrations of risk to which the Group is exposed as a result of COVID-19 for each of the Group's key risk types are set out in this section.

The Group performs sensitivity analyses, stress and scenario testing in order to understand the impact that changes in underlying risk calibrations and correlations of those risks would have on the Group's risk profile and SCR. See section C.7 for details of the methodology employed in sensitivity analysis, the assumptions and limitations in performing these analyses and the results obtained at 31 December 2019.

### **Underwriting risk**

### **GI and Health**

Our GI and Health exposures to COVID-19, together with mitigants, are as follows:

Business Interruption: For the significant majority of the Group's UK General Insurance commercial policies, where policy wordings are
determined by the company, cover is based on a specified list of diseases. These policies exclude business interruption due to new and
emerging diseases, like COVID-19. Policy wordings clearly identify the diseases covered and also highlight that new and emerging diseases
are not covered. Business interruption losses stemming from the current COVID-19 outbreak are therefore not covered under the significant
majority of policies but there is a risk that litigation will be required to provide legal clarity in terms of the events and the cover provided
under broker determined business interruption policy wordings where we are the lead or follow insurer. There is also an exposure to

business interruption policies in Canada where we have agreed there is cover under a specific pandemic risk cover for Canadian dentists, and in Ireland. There is a similar risk of litigation being required in these jurisdictions to provide legal clarity on other business interruption policy wordings.

- Travel Insurance: We are potentially exposed to claims due to travel cancellation, disruption and sickness where this is insured by the Group, primarily in the UK. We are only exposed to losses after recoveries have been made from travel providers (e.g. tour operators or airlines) and agents. Travel disruption is not part of our Aviva UK Direct cover and was removed as a policy option on 9 March but is included as standard in the majority of the added value accounts with our banking partners. We ceased accepting new Aviva UK Direct business, except annual cover renewals from 13 March. Prior to these actions we took pricing actions to limit our potential exposure to new business. Any potential losses are partially mitigated through profit commission and future pricing agreements with distribution partners.
- Reinsurance: The Group purchases reinsurance protections on its property portfolio that includes coverage for business interruption and will seek reinsurance recoveries of those of its business interruption losses that are covered by reinsurance.
- Other: The economic disruption and anticipated recession arising from COVID-19 are likely to lead to increased claims across a wide range of policies, including credit, directors and officers and surety covers. There are also likely to be adverse impacts on future premium volumes.

### Life

The principal Life underwriting risks impacted by the COVID-19 pandemic are mortality and morbidity risks, where our greatest geographic exposure is to the UK. Going forward, there is also uncertainty over the impact this pandemic will have on future behaviour (e.g. persistency).

We have reinsurance in place across all our markets to reduce our net exposure to potential losses. In the UK we have extensive quota share reinsurance in place on Individual Protection business and for large UK Group Life protection we have surplus reinsurance for individual claims. In Individual Protection we have also introduced additional underwriting questions, adjusted pricing and will refer more cases to manual underwriting.

In all of our markets, underwriting procedures on Individual Life Protection products limit our exposure to cohorts of the population at highest risk of COVID-19 (i.e. the elderly and those with pre-existing conditions). While we have greater potential net exposure through Group Life Protection, we have taken pricing actions to limit our potential exposure from new business. We expect there to be some offset to increased protection claims as a result of COVID-19 from technical provision releases on our UK annuity portfolio.

While we have some exposure to income protection claims arising from COVID-19, our policy terms typically include a deferment period only after which benefits become payable to policyholders, and in most cases we expect the deferment period to be longer than the symptomatic period of COVID-19. This materially decreases our exposure.

### Market risk

As a result of the significant financial market impact of COVID-19, particularly to equity markets and interest rates, we have taken a number of actions to reduce our exposure to equity and interest rate risk across all our markets. Actions include purchasing tactical derivative hedges, asset disposals and reallocations and reducing new business sales in certain markets and products.

### Credit risk

Our business model includes taking significant credit risk, primarily to generate returns for policyholders. As a result of the financial market impact of COVID-19 we have taken a number of actions to reduce our exposure to credit spread and counterparty default risk across our major markets. Actions include purchasing tactical derivative hedges, asset disposals and reallocation and reducing new business sales in certain markets and products. We continue to monitor credit quality in our Commercial Mortgage and Equity Release Mortgage portfolios. We are also exposed to increased risk of reinsurance recovery, given the global impact of COVID-19 on the insurance industry.

### Liquidity risk

The Group operates to a liquidity risk appetite which requires that sufficient liquid resources be maintained to cover net outflows in a stress scenario. At the end of February 2020 the Group's centre liquidity, comprising cash and liquid assets, remained strong at £2.4 billion (February 2019: £1.6 billion). To mitigate any potential risk to Group liquidity if there was a significant further worsening of impacts from the COVID-19 pandemic, the Group has access to £1.65 billion of undrawn committed credit facilities.

### Operational risk

COVID-19 is resulting in increased level of inherent operational risk through new practices including enforced remote working, staff absences for sickness and childcare, market volatility and through our outsourcing arrangements. There are also new risks relating to extensive working from home; including cyber, data loss and occupation health. We are adjusting our processes and controls to ensure operational risks remain at an acceptable level.

### Asset management risk

In our asset management business our focus has been on our operational processes, including those around trading and liquidity management within our funds, to ensure continued and uninterrupted service to our customers.

Due to the adverse impact of COVID-19 on the UK and Irish commercial property sectors, and in particular the difficulty in being able to assign values to our commercial property portfolios, we have temporarily suspended our commercial property funds to redemptions.

### Valuation for solvency purposes

The COVID-19 pandemic has resulted in declines in global financial markets with a corresponding impact on the valuation of certain financial assets held at fair value within the Group's balance sheet. The pandemic has also resulted in an increase in volatility in financial markets, increasing the valuation uncertainty of assets and liabilities valued using an alternative method for valuation as described in section D.4. The Group has taken a number of actions to reduce exposure to market risk and credit risk and will continue to monitor its balance sheet exposure.

Technical provisions have been prepared based on conditions and best estimate assumptions at 31 December 2019 and have therefore not been adjusted for any impacts of COVID-19.

Life insurance technical provisions will be impacted through life protection products, as a result of increased mortality, and through income protection, critical illness and health insurance products, as a result of increased morbidity. These impacts may be offset by a potential reduction in future annuity payments. Life insurance technical provisions will also be impacted by economic movements, although these are expected to be somewhat matched by movements in financial assets backing the liabilities.

General insurance technical provisions will be impacted as a result of disruption to businesses and travel insured by the Group; which may be partially offset by a potential reduction in motor claims.

We review the best-estimate assumptions used in the calculation of technical provisions on an ongoing basis and will update them accordingly for the expected impacts of COVID-19. However, given the rapidly evolving nature of the situation, it is not practicable at this stage to quantify the potential valuation impact of the pandemic and related financial market impacts, on the financial assets and technical provisions of the Group.

### Capital management

The capital of the Group is monitored on an ongoing basis and the Group continues to maintain strong solvency levels and expects to continue to meet its Solvency Capital Requirements. Notwithstanding this, the COVID-19 pandemic and the associated volatility in financial markets will most likely have an adverse impact on the Group's own funds and solvency cover ratio. The Group's balance sheet exposure and solvency position has been reviewed and actions are being taken to protect the solvency position and further reduce the sensitivity to economic shocks.