Friends Life Limited

2016 Solvency and Financial Condition Report

AVIVA

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Executive Summary

Executive Summary

The purpose of the Solvency Financial and Condition Report ("SFCR") is to provide information about the capital position at 31 December 2016 of Friends Life Limited ("the Company") based on Solvency II requirements.

The report sets out different aspects of the Company's business and performance, system of governance, risk profile, valuation methods used for solvency purposes and its capital management practices.

Business and performance

The Company is a limited company incorporated and domiciled in the United Kingdom which transacts life assurance and long-term savings business. The Company has both non-profit and with-profits funds and writes primarily pensions, annuities, bonds and protection business. The Company predominantly carries out its business in the UK.

The Company reports to its chief operating decision makers using a non-GAAP financial performance measure referred to as 'operating profit'. The Company regards operating profit as an appropriate measure of underwriting performance. Operating profit for the Company in 2016 was £374 million.

Section A of this report sets out further details about the Company's business structure, key operations, market position and financial performance over the reporting period, split by underwriting performance and investment performance.

System of governance

The Board's responsibility includes ensuring that an appropriate system of governance is in place throughout the Company. To discharge this responsibility, the Board has established frameworks for risk management and internal control using a 'three lines of defence' model and reserves to itself the setting of the Company's risk appetite. A strong system of governance throughout the Company aids effective decision-making and supports the achievement of the Company's objectives for the benefit of customers, shareholders and regulators.

Section B of this report describes the system of governance in place throughout the Company by which the operations of the Company are overseen, directed, managed and controlled, and explains how it complies with the requirements of Solvency II. It describes the following key features:

- The role and responsibility of the Board, its sub-committees and key management committees, and delegation of authority to senior management;
- The remuneration policy, skills requirements and procedures for assessing fitness and propriety for senior management and key function holders;
- The Company's Risk Management Framework ("RMF") and its codification through risk policies and business standards, which set out the risk strategy, appetite and framework and minimum requirements for the Company's operations, and includes the Company's approach to its Own Risk and Solvency Assessment (ORSA) and governance over its internal capital model for Solvency II;
- How the Company's business standards set out mandated control objectives and controls that mitigate operational risks faced by the Company, collectively providing the Company's framework of internal control;
- The role and responsibilities of the four key control functions – Risk Management, Actuarial, Compliance and Internal Audit – and how they are implemented within the Company; and
- The Company's outsourcing policy and information on important outsourced operational functions.

Risk profile

As a long-term insurer, the Company accepts the risks inherent to its core business line of life insurance. Risks are diversified through the Company's scale, geographic spread, the variety of the products and services offered and the channels through which they are sold

The Company receives premiums which are invested in order to maximise risk-adjusted returns, so that the Company can fulfil its promises to customers while providing a return to its shareholders. In doing so, the Company has a preference for retaining those risks which it believes it is capable of managing to generate a return.

The types of risk to which the Company is exposed have not changed significantly over the year and remain credit, market, underwriting, liquidity and operational risks.

Section C of this report further describes the risks to which the Company 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

Assets, technical provisions and other liabilities are valued in the Company's Solvency II Balance Sheet according to the Solvency II regulations. Assets and liabilities are valued at an amount for which they could be exchanged, transferred or settled by knowledgeable and willing third parties in an arm's length transaction.

The value of technical provisions under Solvency II is equal to the sum of a best estimate liability and a risk margin. Under Solvency II, the Company applies the transitional deduction to technical provisions. The transitional deduction (nil as at 31 December 2016) has been approved by the PRA, as detailed further in section F.4.1.

The Company applies a matching adjustment to annuities in the FP and WL with-profits funds and to annuities and some deferred annuities in its non-profit fund. The matching adjustment is 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 to assets that are intended to be held to maturity and have cash flows that are also relatively fixed.

At 31 December 2016, the Company's excess of assets over liabilities was £6,390 million on a Solvency II basis which is £3,086 million higher than the value under UK GAAP. The difference is primarily driven by the value of technical provisions.

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 UK GAAP and Solvency II bases of valuation.

Capital management

The Company manages Own Funds in conjunction with solvency capital requirements. In the calculation of the Solvency Capital Requirement ("SCR"), the Company has chosen to implement a Partial Internal Model, defined as using a combination of Internal Model and Standard Formula approaches to calculate the SCR for different components of its business.

In managing capital, the Company seeks on a consistent basis to:

- Match the profile of its assets and liabilities, taking into account the risks inherent in the business;
- Maintain sufficient, but not excessive, financial strength in accordance with risk appetite, to support new business growth and satisfy the requirements of the Company's regulators and other stakeholders giving the Company's customers assurance of its financial strength;
- Retain financial flexibility by maintaining strong liquidity; and
- Allocate capital rigorously to support value adding growth and repatriate excess capital where appropriate.

At 31 December 2016, the total eligible Own Funds to meet the SCR was £6,559 million, the majority of which was represented by unrestricted tier 1 capital. The Company's SCR, which is calculated using a Partial Internal Model, at 31 December 2016 was £4,231 million. The overall surplus position was £2,328 million which translates to a regulatory cover ratio of 155%.

Section E of this report further describes the objectives, policies and procedures employed by the Company for managing its Own Funds. The section also covers information on structure and quality of Own Funds and calculation of SCR, including information about the Company's Internal Model.

Section A
Business and Performance

In this Chapter

A.1 Business

A.2 Underwriting Performance

A.3 Investment Performance

A.4 Any other information

Section A: Business and Performance

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

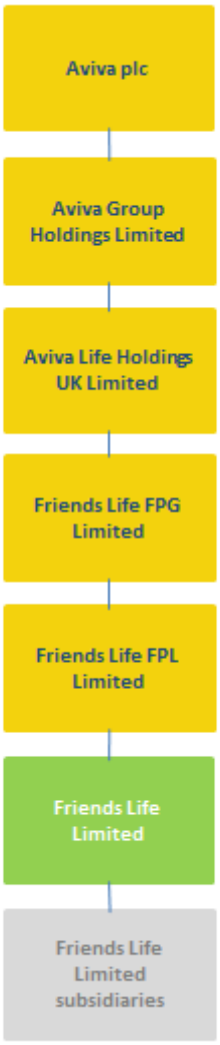
A.1 Business

A.1.1 Business overview

The Company, a limited company incorporated and domiciled in the UK, transacts life assurance and long-term savings business. The Company has both non-profit and with-profits funds and writes primarily pensions, annuities, bonds and protection business. The Company predominantly carries out its business in the UK.

A.1.2 Organisational structure

The following chart shows, in simplified form, the position of the Company within the legal organisational structure of the Aviva plc Group ("the Group") as at 31 December 2016. Aviva plc is the holding company of the Group and is the ultimate parent undertaking of the Company. The immediate parent undertaking of the Company is Friends Life FPL Limited ("FLFPL"), a company incorporated in England.



A complete list of participations in subsidiary undertakings and other related undertakings of the Company is shown in section F.3.

Refer to section B for a detailed description of the system of governance in place within the Company and the Group.

A.1.3 Significant events in the reporting period

On 23 March 2017, the Company received approval from the supervisor to use an Internal Model to calculate the SCR for the non-profit fund, effective from 16 February 2017, with permission to backdate to 31 December 2016. This is described in more detail in section E.

A.1.4 Other information

Qualifying holdings

Qualifying holdings in the Company are held by FLFPL, a limited company incorporated and domiciled in the UK, which holds 100% of the Company's share capital.

Supervisor

The Group's and Company's Supervisor is the Prudential Regulation Authority (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 Company'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

A.2 Underwriting Performance

Operating profit – measurement of performance from underwriting and other activities

The Group reports to its chief operating decision makers using a financial performance measure referred to as 'operating profit'. The Group and the Company regard operating profit as an appropriate measure of underwriting performance.

Operating profit is defined across the Group as International Financial Reporting Standards ("IFRS") profit before income taxes, excluding the following items: investment return variances and economic assumption changes on long-term business, impairment of goodwill, associates, and joint ventures and other amounts expensed, amortisation and impairment of acquired value of in-force business, amortisation and impairment of other intangibles, profit or loss on the disposal and remeasurement of subsidiaries, joint ventures and associates, integration and restructuring costs and other items.

Section A.2.1 shows a reconciliation of the operating profit to the profit and loss account included in the Company's financial statements, which are prepared using UK GAAP Financial Reporting Standard ("FRS") 101.

While these excluded items are significant components in understanding and assessing the Company's financial performance, presentation of operating profit enhances the understanding and comparability of the underlying performance of the business by highlighting net income attributable to ongoing operations.

A.2.1 Performance from underwriting and other activities

The table below presents the operating profit for the Company for the year ended 31 December 2016, as well as the reconciliation of operating profit to UK GAAP profit after tax as included in the Company's financial statements, which incorporates both technical and non-technical profit and loss account items.

	FY16 £m
Gross written premium	1,345
Premiums ceded to reinsurer	(690)
Net earned premiums	655
Net investment income/(expense)	7,278
Other technical income	267
Income	**8,200**
Claims and benefits paid, net of recoveries from reinsurers	(3,725)
Change in technical provisions, net of reinsurance	(3,378)
Change in fund for future appropriations	(13)
Other expenses	(455)
UK GAAP Profit before tax	**629**
Tax attributable	(313)
UK GAAP Profit after tax	**316**
Adjusted for non-operating items:	
Revaluation of investment in subsidiaries	(199)
Management fees in respect of contributions to Group pension schemes	51
Investment return variances and economic assumption changes on long-term business	97
Prior period entity adjustments	27
Non-operating costs	65
Other, primarily tax	17
Operating profit before tax attributable to shareholders	**374**

The operating profit arising in the year predominantly reflects the emergence of surplus on existing business. In addition there are positive impacts arising from longevity assumption changes and the rebalancing of investment portfolios which have reduced UK GAAP technical provisions in respect of annuity business.

Items of income and expenses that do not directly relate to the Group's underwriting and investment activities are disclosed outside of operating profit. These are collectively referred to as 'adjusting items'. The adjusting items are shown in the reconciliation from UK GAAP profit before tax to the operating profit in the table above. Further information on these items is provided in section A.4.

A.2.2 Solvency II lines of business and products

Detailed information on premiums, claims, expenses and changes in technical provisions by Solvency II line of business is presented in Quantitative Reporting Templates ("QRTs") S.05.01 and S.05.02 (included in the Appendices in Section F). A summary of the information presented in these QRTs is shown below.

	Health insurance	Insurance with profit participation	Index-lined and unit-linked insurance	Other life insurance	Total
	£m	£m	£m	£m	£m
Gross premiums written	227	149	273	695	**1,344**
Premiums ceded to reinsurers	(27)	-	(6)	(656)	**(689)**
Net premiums written	200	149	267	39	**655**
Net claims incurred	(118)	(1,647)	(1,342)	(584)	**(3,691)**
Changes in other technical provisions	(4)	(241)	36	(632)	**(841)**
Direct expenses incurred	(24)	(46)	(326)	(44)	**(440)**

The Company sells a diverse range of products through its business. The principal products sold include pensions, annuities, protection and investment products. Some of the Company's insurance and investments products contain a discretionary participation feature, which is a contractual right to receive additional benefits as a supplement to guaranteed benefits. These are referred to as 'participating' contracts.

For business classified as non-participating investment business under UK GAAP the amounts received are treated as deposits under UK GAAP and an investment management fee is earned on the funds deposited. Consequently this business is not captured within UK GAAP net written premiums and therefore not included on the QRTs S.05.01 'Premiums, claims and expenses by line of business' and S.05.02 'Premiums, claims and expenses by country'. Non-participating investment business primarily consists of unit-linked life and pensions business.

A.3 Investment performance

A.3.1 Measurement of investment performance

Net investment income as disclosed in the Company's financial statements represents the Company's overall investment performance for both policyholders and shareholders. Net investment income consists of dividends, interest and rents receivable for the year, realised gains and losses, and unrealised gains and losses on investments held at fair value.

The Company's exposure to investment return varies according to the characteristics of the liability that the assets are held to support. For many types of long-term business, including unit-linked and participating funds, net investment income is broadly offset by corresponding changes in liabilities, limiting the net impact on profit. Therefore returns on policyholder, participating funds and shareholder investments are distinguished from one another:

- Policyholder assets are connected to unit-linked business, where the policyholder bears the investments risk on the assets in the unit-linked funds. Shareholder exposure to loss on policyholder assets is limited to the extent that income arising from asset management charges is based on the value of assets in the funds.
- Participating fund assets relate to a subset of insurance and investment contracts which contain a discretionary participation feature, which is a contractual right to receive additional benefits as a supplement to guaranteed benefits. Shareholder exposure to investment losses on participating funds is generally limited to the shareholder's participation in the fund.
- Shareholder assets are other assets held within our business that are not backing unit-linked liabilities or participating funds.

Operating profit includes an expected investment return on financial investments backing shareholder funds and policyholder funds, with a consistent allowance for the corresponding expected movements in liabilities.

Assets are invested in order to generate a return for both policyholders and shareholders. The financial strength of the Company and both current and future operating results and financial performance are, therefore, in part dependent on the quality and performance of the investment portfolios held by the Company.

The aim is to match appropriate investments to the nature of the underlying liabilities, whilst at the same time considering regulatory requirements, the level of risk inherent within different investments, and the desire to generate superior investment returns, where compatible with the stated strategy and risk appetite.

A.3.2 Investment performance by asset class

The following section summarises the Company's net investment income and provides an analysis of net investment income by fund type.

Net Investment Income - Total	Debt Securities £m	Equity Securities £m	Loans £m	Other financial investment £m	Investment property £m	Other £m	Total £m
Dividends	-	773	-	227	4	-	1,004
Interest	574	31	(69)	42	2	27	607
Net realised gains/(losses)	1,115	1,082	-	314	8	15	2,534
Net unrealised gains/(losses)	1,539	728	3	857	(34)	21	3,114
Rental income less expenses	-	-	-	-	123	-	123
Other income less management charges	-	-	-	(2)	-	(102)	(104)
Total	**3,228**	**2,614**	**(66)**	**1,438**	**103**	**(39)**	**7,278**

The Company's expense for the year in respect of investment management fees amounted to £104 million.

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

Net Investment Income - Total	Debt Securities £m	Equity Securities £m	Loans £m	Other financial investments £m	Investment property £m	Other £m	Total £m
Policyholder assets	510	1,708	-	1,200	57	-	3,475
Participating assets	1,124	694	-	553	46	(29)	2,388
Shareholder assets	1,594	212	(66)	(315)	-	(10)	1,415
Total	**3,228**	**2,614**	**(66)**	**1,438**	**103**	**(39)**	**7,278**

Net investment income primarily consists of realised and unrealised gains on debt securities, equity securities and unit trusts (included within other financial investments).

- Gains on debt securities reflect the returns on underlying indices (Government all stock indices of 7.0% and Corporate bond indices of 6.0%). The return reflects falling yields on gilts and investment grade bonds during 2016.
- Gains on equity securities reflect the returns on underlying indices (FTSE all share indices of 12%, S&P Europe indices of 16% and S&P World indices of 26%).
- Unit trusts are primarily invested in debt and equity funds. Consequently, gains on unit trusts reflect the returns on both debt and equity.

Items within 'Other' primarily consist of investment income in respect of participations and other subsidiaries.

A.3.3 Investment performance: Other information – Investments in securitisations

Securitisation means a transaction or scheme, whereby the credit risk associated with an exposure or pool of exposures is tranched, having both of the following characteristics:

- payments in the transaction or scheme are dependent upon the performance of the exposure or pool of exposures;
- the subordination of tranches determines the distribution of losses during the ongoing life of the transaction or scheme.

The Company holds investments in securitisation vehicles that are not originated by the Company in the form of debt securities. These securities consist of residential mortgage backed securities, commercial mortgage backed securities, asset backed securities, wrapped credit securities and collateralised loan obligation securities.

Net investment income in the Company for the year in respect of these securitisations was £97 million.

The key risks the Company's securitisations are exposed to are market risk and credit risk. The Company's risk management procedures in respect of market risk and credit risk are described in sections C.2.2. and C.3.2.

A.4 Any other information

The Company's operating profit for the period was £374 million. The adjusting items reported below operating profit are outlined below.

Operating profit for the Company is based on expected investment returns on financial investments backing shareholder and policyholder funds over the period, with consistent allowance for the corresponding expected movements in liabilities. The expected rate of return is determined having regard to long-term economic and market forecasts of investment return and asset classification.

Operating profit includes the effect of variances in experience for non-economic items, such as mortality, persistency and expenses, and the effect of changes in non-economic assumptions. Changes due to economic items, such as market value movement and interest rate changes which give rise to variances between actual and expected investment returns, and the impact of changes in economic assumptions on liabilities, are disclosed as non-operating items.

Net investment income, as discussed in section A.3 'Investment performance', includes both the operating and non-operating component of investment return.

Other non-operating items primarily consist of fair value movements on the valuation of subsidiaries, dividends receivable from subsidiaries. and integration costs in respect of the acquired Friends Life business.

Operating profit is not a substitute for profit after tax as determined in accordance with UK GAAP. The Company's definition of operating profit may differ from similar measures used by other companies, and may change over time.

Section B
System of Governance

In this chapter

B.1 General information on the system of governance

B.2 Fit and proper policy

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

B.4 Internal control system

B.5 Internal audit function

B.6 Actuarial function

B.7 Outsourcing

Section B: System of governance

This section of the report sets out information regarding the 'System of Governance' in place within the Company.

Details of the structure of the undertaking's "administrative, management or supervisory body" (defined as including the Board, subsidiary boards and Board sub-committees) are provided. The roles, responsibilities and governance of key functions (defined as the Risk, Compliance, Internal Audit and Actuarial functions) are also provided. Other components of the system of governance are also outlined, including the risk management system and internal control system implemented across the business.

B.1 General Information on the system of governance

B.1.1 Overview of the Company's system of governance

Role and responsibilities of the Board

The Board's role is to be responsible for promoting the long-term success of the Company and for setting the strategy, against which management's performance is monitored. It sets the risk appetite and satisfies itself that financial controls and risk management systems are robust, whilst ensuring the business is adequately resourced. The Board is also responsible for setting the values and supporting the culture of the Company, and ensures appropriate dialogue with shareholders on strategy and remuneration.

The Board's responsibility includes ensuring that an appropriate system of governance is in place. To discharge this responsibility, the Board has established frameworks for risk management and internal control using a 'three lines of defence' model.

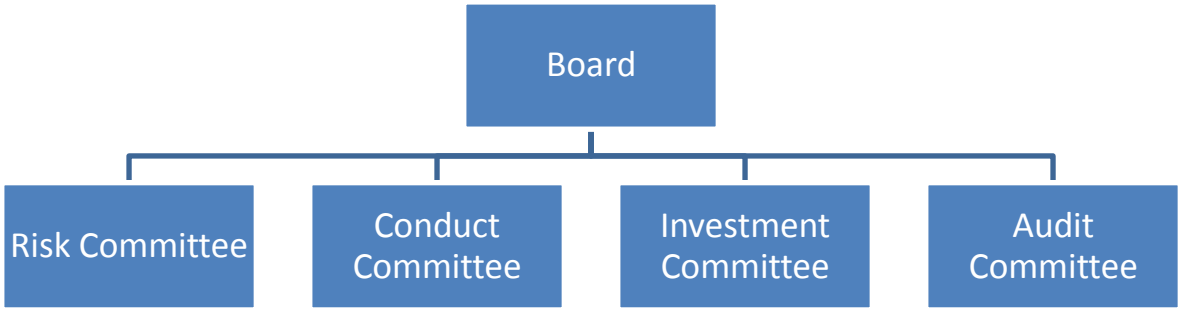
A strong system of governance aids effective decision-making and supports the achievement of business objectives for the benefit of customers, shareholders and regulators.

The Board comprises the Chairman, Chief Executive Officer, Chief Financial Officer and Independent Non-Executive Directors ("NEDs"). The Board's policy is to appoint and retain NEDs, who can apply their wider business knowledge and experiences to their oversight of the Company, and to review and refresh regularly the skills on the Board.

The Board has established and delegated responsibilities to various committees to assist in its oversight of risk management and the approach to internal controls. There is alignment and communication between these committees and there is regular reporting to the Board.

The full duties of the Board and of each of its committees are set out in each respective Terms of Reference. The Terms of Reference list both those items that are specifically reserved for decision by the Board and those matters that must be reported to the Board.

The diagram illustrates the governance structure and a brief description of the main roles and responsibilities of each committee follows:



The ***Risk Committee*** is responsible for assisting the Board in its oversight of risk, reviewing the Company's risk appetite and risk profile in relation to capital, liquidity and franchise, reviewing the effectiveness of the Company's Risk Management Framework, reviewing the methodology used in determining the Company's capital requirements, stress testing, ensuring due diligence appraisals are carried out on strategic or significant transactions, and monitoring the Company's regulatory requirements in relation to prudential matters, as appropriate.

The ***Conduct Committee*** is responsible for assisting the Board in its oversight of conduct issues. This oversight includes oversight of the Company's conduct framework including product design, live selling practices, claims practices, conduct oversight of third parties, the achievement of an appropriate conduct focused culture and the management of good and influential relationships with the regulators. It also sets and reviews the conduct and financial crime risk appetites and ensures that the reputational risk is consistent with the risk preference approved by the Board.

The ***Investment Committee*** is responsible for assessing and approving investment strategy consistent with the risk appetite approved by the Board; considering investment matters that require Board approval (for example the investment into a new asset class); overseeing the relationship between the Company and its investment managers and monitoring investment performance.

The ***Audit Committee*** is responsible for monitoring the integrity of the Company's financial statements and the effectiveness of the systems of internal control and for monitoring the effectiveness, performance, independence and objectivity of the internal and external auditors.

There are also two other Board committees with specific purposes:

- ***With Profits Committee*** provides independent oversight and challenge to ensure that fairness and with-profits customers' interests are appropriately considered in governance structures and decision making processes.
- ***Independent Governance Committee*** provides independent challenge in respect of the interests of relevant scheme members of workplace pensions.

An effective delegated authority framework is an important part of good business governance. A set of transaction categories provide a comprehensive framework for assigning financial authorities to certain individuals consistently across the Company, with limits within each category to ensure they support effective and appropriate decision making.

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

Roles and responsibilities for risk management are based around the 'three lines of defence model' where employees are involved in the management and mitigation of risk. The roles of the three lines of defence each contribute to embedded risk management.

The first line: management monitoring

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 Risk, Conduct, Investment and Audit Committees, and the Board.

The second line: Risk Management, Compliance and Actuarial functions

The Risk Management function is accountable for developing the RMF and for the quantitative and qualitative oversight and challenge of the identify, measure, manage, monitor and report ("IMMMR") process. As the business responds to changing market conditions and customer needs, the Risk Management function regularly monitors the appropriateness of the Company's risk policies and the RMF to ensure they remain up to date.

The Actuarial function is accountable for actuarial methodology, reporting to the relevant governing body on the adequacy of reserves and capital requirements, as well as underwriting and reinsurance arrangements.

The Compliance function supports and advises the business on the identification, measurement and management of its regulatory, financial crime and conduct risks. It is also accountable for monitoring and reporting on the compliance risk profile.

Refer to sections B.3.2, B.4.2 and B.6 for further details on the roles, responsibilities, authority, resources, independence and reporting lines of the Risk Management, Compliance and Actuarial functions respectively, and how their independence is ensured.

The third line: 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, Conduct, Risk and Investment 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 Internal Audit function.

Implementation and assessment of adequacy of the system of governance

The Company implements its Risk Management Framework and system of internal controls and associated reporting procedures consistently throughout, via group-wide risk policies and business standards. To support an assessment of the effectiveness of the governance, internal control and risk management requirements, the Chief Executive Officer is required to certify annually that:

- there are sound risk management and internal control systems that are effective and fit for purpose in place across the business; and
- material existing or emerging risks within the business have been identified and assessed and the business operates in a manner which conforms to the minimum requirements outlined in the risk policies and business standards.

Linked to this, the Chief Risk Officer must certify that:

- the Risk function has reviewed and challenged the process supporting the Chief Executive Officer's certification and is satisfied that it can provide reasonable assurance of the material accuracy and completeness of the Chief Executive Officer's assessment; and
- no material gaps exist in the RMF as it applies to the Company.

Any material risks not previously identified, control weaknesses or non-compliance with the risk policies and business standards or local delegations of authority, must be highlighted as part of this process.

Changes in the system of governance during 2016

There have been no material changes in the system of governance during the year. It should be noted that, whilst not a change to the overall system of governance in place, the Friends Life Group had an established framework of financial reporting controls in place at the time of acquisition and work to align this with the Aviva Group's financial reporting and control framework ("FRCF") methodology was completed in 2016.

Terms of Reference for all Board Committees were updated during 2016 and changes were approved by the Board.

B.1.2 Remuneration Policy

The vast majority of staff are employed by a fellow subsidiary undertaking of Aviva plc, Aviva Employment Services Limited, which makes a management charge for services, including the provision of staff to the Company. The Group's reward principles and arrangements are designed to incentivise and reward employees for achieving stated business goals in a manner that is consistent with the Company's approach to sound and effective risk management. The Group's remuneration philosophy is based on four key principles which are outlined below:

- Align to the Group's purpose and strategy;
- Incentivise achievement of the Group's annual business plan and longer term strategic objectives of the business;
- Recognise leaders who achieve the required business results through living the Group values and behaviours; and
- Ensure risk based decision making and good governance.

B.1.2.1 Executive directors (''EDs'')

The group-wide Remuneration Committee considers alignment between the strategy and the remuneration of its EDs to be critical. The Remuneration Policy provides market competitive remuneration, and incentivises EDs to achieve both the annual business plan and the longer-term strategic objectives of the business. Significant levels of deferral and an aggregate shareholding requirement align EDs' interests with those of shareholders and aid retention of key personnel. As well as rewarding the achievement of objectives, variable remuneration can be zero if performance thresholds are not met.

Remuneration of executive directors includes a basic salary, variable components, a pension, benefits (including relocation and mobility) and a shareholding requirement.

The variable components include an annual bonus and Long-Term Incentive Plan ("LTIP"). The annual bonus is based on performance in the year. Targets are set annually and pay-out levels are determined by the Remuneration Committee based on performance against those targets. A significant proportion of any bonus awarded is deferred into shares which vest after three years.

The LTIP vests subject to performance against two equally weighted performance measures, absolute return on equity ("ROE") and relative total shareholder return ("TSR") performance, which have been chosen to reflect shareholders' long-term interests. Half of the LTIP vests if ROE exceeds 30% over the three-year performance period. The other half vests if the TSR is in the upper quintile when compared to a number of other external companies over the three year period. The proportion of shares vested is lower if these performance measures are not met, and falls to zero when performance measures fall below pre-set targets.

The Group did not operate any enhanced pension arrangements or early retirement schemes for key management during the reporting period.

B.1.2.2 Non-executive directors (''NEDs'')

NEDs receive a basic annual fee in respect of their Board duties. Further fees are paid for membership and, where appropriate, chairmanship of Board committees. The Chairman receives a fixed annual fee. Fees are reviewed annually taking into account market data and trends and the scope of specific Board duties. The Chairman and NEDs do not participate in any incentive or performance plans or pension arrangements and do not receive an expense allowance.

B.1.2.3 Employees

Remuneration arrangements for employees that are not EDs take account of the seniority and nature of the role, individual performance and local market practice. The aim is to provide employees with remuneration packages that are clear and simple to understand, transparent, consistent and fair. Remuneration includes a basic salary, variable components and a pension.

Variable payments are discretionary and fully flexible as opposed to a contractual entitlement, and there is a possibility of zero awards being made should the performance of the Group and/or individuals require this. Individual awards are based on a calibrated assessment of performance of individuals relative to peers.

The remuneration of employees in the Risk Management function (including Compliance and the Actuarial function) and Internal Audit is determined independently of the financial results of the business areas they oversee. This reinforces the independence of these functions.

B.1.2.4 Material transactions with shareholder and persons exercising significant influence during the period

Key management personnel may from time to time purchase insurance, savings, asset management or annuity products marketed by Group companies on equivalent terms to all employees of the Group. Any transactions with key management personnel deemed to be significant either by size or in the context of their individual financial positions have been conducted on an arms-length basis.

There were no material transactions with the Company's shareholder during the year.

B.2 Fit and proper policy

The Group has the following policies in place to ensure that individuals acting on behalf of the Company are both "fit" and "proper" in line with the PRA's Fit and Proper requirements for individuals subject to the Senior Insurance Manager Regime and the Financial Conduct Authority's (''FCA''s) requirements for Approved Persons:

- 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.

The governance over the fitness and propriety of individuals spans across the employee lifecycle including recruitment, performance management and training. To ensure the Group protects itself against employing individuals who potentially could threaten our people, customers, properties, facilities or reputation, the majority of Fit and Proper 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 Fit and Proper requirements are also applied for individuals who fall within the following categories, as required by Solvency II requirements:

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

For persons responsible for running the undertaking or responsible for key functions this assessment must consider their allocated responsibilities and skills and experience across a skills matrix covering the following areas:

- Insurance and financial markets;
- Business strategy and business models;
- Systems of governance;
- Financial and actuarial analysis; and
- Regulatory framework and requirements.

The group-wide Nomination Committee identifies the skills and experience that it would like to have at Board level. These requirements are set out in a comprehensive skills matrix where Board members are asked via an online questionnaire to self-assess their experience and skills each year. The Skills Matrix is integral to the Committee's planning, discussions for developing further the Board's succession plans and commitment to Board diversity. Additionally, it is an essential tool to review and reflect on the skills that individual directors' currently possess and ascertain areas in which training and development can be strengthened.

Prior to appointing an individual into a key function role, checks take place to ensure that the relevant skills and experience have been identified and agreed for the role. This is achieved by engaging with both internal and external subject matter experts in each specialism to define the skills and experience required for each key function role.

In all cases local business subject matter experts are engaged to ensure that all skills and experience requirements have been identified, including any specific qualifications required to carry out the role. These individual key function role skills and experience requirements and qualifications, where applicable, are captured within individual role descriptions for each role.

Compliance with the initial and ongoing Fit and Proper minimum requirements is reported on a half yearly basis as part of the People Business Standard attestation by the People Director on behalf of the Chief Executive Officer to the Group People function.

B.3 Risk management system including the own risk and solvency assessment (''ORSA'')

B.3.1 Overall risk management system: strategies, processes and reporting procedures

The RMF forms an integral part of the management and Board processes and decision-making framework across the Company. The key elements of this framework comprise risk appetite; risk governance, including risk policies and business standards, and the processes we use to IMMMR risks, including the use of our risk models and stress and scenario testing.

To promote a consistent and rigorous approach to risk management across all parts of the business, there is a set of risk policies and business standards which set out the risk strategy, appetite, and minimum requirements for the Company's operations. On a semi-annual basis the Chief Executive Officer and Chief Risk Officer sign-off compliance with these policies and standards, providing assurance to the relevant oversight committees that there is a consistent framework for managing the business and the associated risks.

For the purposes of risk identification and measurement, risks are usually grouped by risk type: credit, market, liquidity, underwriting and operational risk. Risks falling within these types may affect a number of metrics including those relating to balance sheet strength, liquidity and profit. They may also affect the performance of the products delivered to customers and the service to customers and distributors, which can be categorised as risks to the brand and reputation or as conduct risk.

A regular top-down risk assessment and reporting process is facilitated by the Risk Management function. This includes the consideration of emerging risks and is supported by deeper thematic reviews. This, together with the risk and control self-assessment ("RCSA") process, are the main processes used to identify, measure, manage, monitor and report risks.

They are run separately but are complementary. The RCSA process is run by the first line, with challenge by the Risk Management function. It focuses on operational risks, which are recorded on 'iCARE', the Company's risk management system.

Risk models are an important tool in the measurement of risks and are used to support the monitoring of the risk profile and in the consideration of the risk management actions available. A range of stress tests are carried out (where one risk factor, such as equity returns, is assumed to vary) and scenario tests (where combinations of risk factors are assumed to vary) to evaluate their impact on the business and the management actions available to respond to the conditions envisaged.

The Risk Management function is accountable for quantitative and qualitative oversight and challenge of the IMMMR process and for developing the Risk Management Framework. Internal Audit provides an independent assessment of the risk framework and internal control processes.

Board oversight of risk and risk management across the Company is maintained on a regular basis through the Risk, Conduct and Investment Committees.

The Board has overall responsibility for determining risk appetite, which is an expression of the risk the business is willing to take. Risk appetite is set for capital and liquidity. Economic capital risk appetites are also set for each risk type, calculated on the basis of the Solvency II balance sheet. The position against risk appetite is monitored and reported to the Board on a regular basis.

Risk preferences, being qualitative statements that express the risks that the Company seeks to avoid or minimize, are also set by the Board. Long-term sustainability depends upon the protection of franchise value and good customer relationships. As such, there is a risk preference that the Company will not accept risks that materially impair its reputation and requires that customers are always treated with integrity.

Reporting of risks is provided to Board Committees and the Board by management, alongside Risk and Audit opinions. The Board has set clear expectations that reporting must present an accurate, clear and timely picture of existing and emerging issues, risk exposures and risk management activities and provide demonstrable evidence that the Company is managing its risks.

Under Solvency II, the Internal Model must be embedded at the heart of risk and capital evaluation and its outputs must be used as a key part of a wide range of business and strategic decisions. As well as being a Solvency II requirement, this makes sense from a business perspective – using a model which reflects the actual risk profile of the business drives more informed decisions. An annual Business Use Assessment process takes place which facilities embedding and evidencing of the use of risk management and economic capital in decision making.

It is recognised that it is important to have an appropriate risk 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 is annually signed up to by employees, and a commitment to integrity, ethical behaviour and compliance.

A risk and control goal is set for senior management as part of the annual bonus plan to help drive and reward effective risk management and a robust control environment. This is assessed on an annual basis by the Group Risk Management function.

B.3.2 Risk management function

The Risk Management function is responsible for the design and implementation of the risk management system, and the design and independent validation of economic capital models requiring regulatory approval. The Risk Management function reports to the Board on material risks identified, together with any other specific areas of risk requested by the Board, and assists the Board and management in the effective operation of the risk management system 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.

The Risk Management function has authority to review all areas of the business and has full, free and unrestricted access to all activities, records, property and personnel necessary to complete its work. The scope of Risk's activities extends to all legal entities, joint ventures, partnerships, outsourcing and reinsurance arrangements.

The Risk Management function operates as part of the Global Risk function, which includes the Actuarial and Compliance functions as well as Risk Management. Further information on the Actuarial and Compliance functions is set out in sections B.6 and B.4.2 respectively.

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

Under Solvency II, the Internal Model must be embedded at the heart of risk and capital evaluation and its outputs must be used as a key part of a wide range of business and strategic decisions. As well as being a Solvency II requirement, this makes sense from a business perspective - using a model which reflects the actual risk profile of the business drives more informed decisions. An annual Business Use Assessment process takes place which facilitates embedding and evidencing of the use of risk management and economic capital in decision making.

All key decisions must have the support of the Risk Management function before proceeding and the Chief Risk Officer has the power of veto.

B.3.4 Own Risk and Solvency Assessment (''ORSA'')

The ORSA Report is the outcome of the combined processes and procedures (collectively ORSA processes) in place to manage and assess the risk and solvency position of the Company. The goal of the ORSA is to provide a continuous and forward-looking assessment of the short-term and long-term risks that the Company faces, or may face, ensuring that solvency requirements are met at all times.

The ORSA processes comprise a number of elements of the Risk Management Framework which are embedded in the business through the requirements of supporting risk policies and business standards around strategy, planning, capital management, stress and scenario testing and use of economic capital in decision making.

In combination, these elements create a holistic overview of the elements of risk that may impact the Company, and which should be taken into account by management in day-to-day decision-making, in particular through the use of economic capital, and ensures risk and capital management are connected.

The ORSA Report articulates the Board's formal view of the capital we need to hold, given the risks currently faced by the business and how these might evolve over time, in line with delivery of the business strategy. It summarises a high level description of the key components of the underlying ORSA processes and the key outcomes from these processes.

Consistent with the three lines of defence model, first-line management is responsible for the implementation of the majority of the underlying ORSA processes.

The output from the ORSA processes is reported to the Board and the Board Risk Committee regularly during the year. The ORSA (Supervisory) Report is produced annually, as well as an interim ORSA update following the strategy refresh. The CRO is responsible for producing the ORSA Report which is reviewed and approved by the Risk Committee and the Board.

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 SCR.

Economic capital (as a risk based capital measure) is embedded at the heart of the Company's risk and capital evaluation and is used as a key input to a wide range of business and strategic decisions. The Risk Management Framework, supported by risk policies and business standards, sets out the areas where businesses are expected to use economic capital management information as part of their decision-making and risk management processes. This ensures that requirements to use economic capital are embedded within the instructions of how the relevant processes (for example asset liability management; strategy and planning) are to be performed. Economic capital is calculated using the Company's Partial Internal Model.

B.3.5 Governance over the Internal Model

The Solvency II Internal Model Governance and Data Governance business standards and associated guidance, manuals, logs and reports are part of the overall Risk Management Framework. These combine to ensure that our businesses operate within a controlled environment when developing methodologies and assumptions, and when running processes and systems.

The appropriateness of our Internal Model is tested and confirmed by model validation, review and challenge, weakness and limitation management and general change control processes. In aggregate, these tests ensure there is a robust

governance framework to support the use of the Internal Model in both a production environment and during model development or change.

The Board is responsible for approving any Internal Model changes before Group submission to the College of Supervisors for approval. It is anticipated that there will be one model change application a year (around June each year). The quarterly model change reports and supporting evidence provide the required information to support Board Risk Committee and the College of Supervisors approval.

The Chief Risk Officer is the ultimate Internal Model Owner. In practice the day to day responsibilities are delegated to the Chief Risk Actuary, as he has the accountability to give assurance to the Board that the Internal Model is appropriate for use on an ongoing basis; adequately reflects the business's risk profile; takes into account new information as it becomes available and works effectively. This enables the Board to conclude whether the Internal Model is fit for purpose whilst 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 (refer to the section below for further details) also provides an opinion to the Board on whether the Internal Model is suitably accurate and fit for purpose, and whether or not its approval is recommended. Since approval of the Company's Internal Model Application , work has continued to refine the model change process and update the Solvency II Model Governance Business Standard in accordance with PRA feedback. This Business Standard clarifies how changes or updates to the 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 capital assessment and capital management, the 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 judgment, to ensure that the model and its components are both accurate and reflect management opinion. Tests include benchmarking (the results of the Internal Model and its components are compared against external benchmarks), back-testing (historic experience is compared against the results produced by the model) and sensitivity testing (the analysis of the change in results due to changes in its inputs). The validation tests are run, documented and assessed against criteria set by the Actuarial function, and are designed to draw conclusions on the appropriateness of the Internal Model. The results of this analysis are made available to the Risk Committee and Board.

In addition, separate and independent validation of the Internal Model is performed to give assurance to the Board that the model is appropriate for use on an ongoing basis; adequately reflects the business's risk profile and takes into account new information as it becomes available; is accurate and works effectively. This informs whether the Internal Model is fit for purpose, including informing important strategic and business decisions; capital management; business planning; risk mitigation; investment allocation and product development.

The Board approves the scope and approach proposed by the Enterprise Risk Director (who reports into the Chief Risk Officer) for each independent validation exercise, as required by the Internal Model Independent Validation Business Standard. The Enterprise Risk Director performs the independent validation and provides an opinion to the Board whether the Internal Model is materially fit for purpose.

The independent validation to support year end 2016 concluded that the Internal Model, is materially compliant with Solvency II requirements and is appropriate for calculating solvency capital requirements on an ongoing basis.

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 required controls for effective internal control across the Group. It comprises 5 key principles.

- The Company sets an appropriate culture, including “tone from the top”. This ensures the effective management of exposures, adequate resourcing, effective communication, malpractice reporting, a business ethics code that is annually signed up to by employees, and a commitment to integrity, ethical behaviour and compliance;
- The Company has an organisational structure that supports 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;
- The Company has a Risk Management Framework (see section B.3.1);
- The Company has effective controls for each core business process and that these are monitored and reported upon regularly; and
- The Company has a risk oversight process that provides adequate challenge to the completeness and openness of internal control and risk assessment.

B.4.2 Compliance function

The primary purpose of the Compliance function is to assess and manage the business’s exposure to regulatory risk. In the UK, where a dual regulatory system exists, this activity has been divided between prudential and conduct regulatory risk.

The Compliance function is an integral part of the Risk Management Framework and constitutes a key part of corporate governance. The function is a critical contributor to the safe and sound operation of the business and underpins the achievement of strategic and business goals. The Compliance function is led by the Compliance Director, who reports to the Chief Risk Officer and has delegated authority to manage compliance related risk across the business.

The Compliance function is required to monitor and assess the impact of changes in the legal environment on the operations of the business. Given the highly specialised nature of the work, the Legal function is responsible for this activity. The Compliance function, with support from the Legal function is required to provide input to regulatory developments through consultations and representation to industry bodies.

The Compliance function has authority to review all areas of the business and has full, free and unrestricted access to all activities, records, property and personnel necessary to complete its work.

B.5 Internal audit function

The Internal Audit function provides independent and objective assessment of the robustness of the Risk Management Framework and the appropriateness and effectiveness of internal control to the Board, primarily via the Audit Committee. The Audit Committee receives quarterly control reports from Internal Audit and reviews and challenges management on the actions being taken to improve the quality of the overall control environment and the control culture across the Company.

B.5.1 Independence and objectivity of the Internal Audit function

Internal Audit must be independent from management at all times in order to be effective in performing its activities. The Internal Audit function maintains its independence and objectivity by reporting directly to the Group Chief Audit Officer and the Chairman of the Company’s Audit Committee.

The Audit Committee has a duty to recommend the appointment or dismissal of the Internal Audit Director to the Board and to participate, jointly with the Chief Audit Officer or designee, in the determination of the objectives of the Internal Audit Director and the evaluation of his levels of achievement, including consultation with the Chief Executive Officer.

Internal Audit staff have no direct responsibility or authority over any operational activities reviewed and may not relieve others of such responsibilities. Internal Audit staff previously working on behalf of the Company, but outside of the Internal Audit function, may not perform or manage reviews of the Company for a period of at least one year after the end of their previous role. Internal Audit operates a formal policy of rotating staff to ensure that independence is maintained.

Internal Audit provides the Audit Committee with an annual confirmation of its independence, supported by an independence declaration form signed by all members of Internal Audit staff.

Internal Audit is authorised to review all areas of the Company and has full, free, and unrestricted access to all activities, records, property, and personnel necessary to complete their work.

B.6 Actuarial function

The Actuarial function is accountable for actuarial methodology, reporting to the Board on the adequacy of reserves and capital requirements, and on the adequacy of underwriting and reinsurance arrangements.

The independence of the Actuarial function is derived through its membership in the wider Global Risk function. The Actuarial function is led by the Chief Risk Actuary, who reports to the Company's Chief Risk Officer.

The Actuarial function has authority to review all areas of the business and has full, free and unrestricted access to all activities, records, property and personnel necessary to complete its work.

B.7 Outsourcing

The Group Procurement and Outsourcing Standard is the Company's Outsourcing Policy which sets out the relevant responsibilities, objectives, process, 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. The objective of this standard is to ensure that minimum control objectives and controls for Supplier related activities are followed by the Company, 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 is benchmarked against UK regulatory expectations, FCA, PRA, Solvency II framework and Global Systemically Important Insurers ("G-SII") requirements, and where appropriate, regulatory guidance will be applied as a requirement. Any local regulation that exceeds the UK expectations must supplement this.

The standard applies to all staff involved in supplier related activities and provides direction to staff on their roles and responsibilities in effectively managing supplier activity. 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 critical or important. All staff have a responsibility to comply with this standard if they are involved with supplier related activity.

The Group'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; and
- Supplier management and business continuity – risk based approach to management of supply contracts.

B.7.1 Outsourced functions and activities

The Group outsources a wide range of operational functions and activities, including policy administration, claims handling, customer contact centres and IT services. The Procurement and Outsourcing Standard requires a global Supplier Landscape document to be produced bi-annually to capture details of all critical or important outsourced operational functions and activities.

The Company has outsourced the following critical and important functions:

Supplier Name	Jurisdiction	Services provided
Capita Life & Pensions regulated services Ltd	United Kingdom	Policy Administration Services for Life and Pensions Products
HSBC Bank plc	United Kingdom	Registration and recording of securities, settlement, income, corporate actions and other custody operations; Fund Accounting
JP Morgan	United Kingdom	Providing custodial, settlement and other associated services
HCL Insurance Services Limited	United Kingdom	Policy Administration Services for Life and Pensions Products
State Street Bank	United Kingdom	Registration and recording of securities settlement, income, corporate actions and other custody operations; Fund Accounting
Diligenta Limited	United Kingdom	Provision of Policy Administration & Information Technology Outsourcing Services (including Business Change & supporting services

In addition, the Company has outsourced the following functions to other companies within the Group.

Supplier Name	Jurisdiction	Services provided
Aviva Central Services Limited	United Kingdom	Provision of Finance, People and Information Technology functions
Aviva Employment Services Limited	United Kingdom	Employment of the Company's staff from 1 July 2016
Aviva Investors Global Services Limited	United Kingdom	Investment management services
Aviva Life Services Limited	United Kingdom	Expenses management
Friends Life Funds Limited	United Kingdom	Investment management services
Friends Life Management Services Limited	United Kingdom	Employment of the Company's staff until 30 June 2016 and expenses management
Friends Life Services Limited	United Kingdom	Employment of the Company's staff until 30 June 2016 and expenses management

Section C
Risk Profile

In this chapter

C Overview of the Company's risk profile

C.1 Underwriting risk

C.2 Market risk

C.3 Credit risk

C.4 Liquidity risk

C.5 Operational risk

C.6 Any other information

Section C: Risk profile

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

Overview of the Company's risk profile

For the purposes of risk identification and measurement, and aligned to the Company's risk policies, risks are usually grouped by the following principal risk types: underwriting risk (including life and long-term health), market, credit, liquidity and operational risk.

An overview of the Company's process for identifying, measuring, managing and monitoring the risks it faces is set out below, with further detail provided in sections C.1 to C.5.

Risk identification

The ultimate parent company, Aviva plc, and its related undertakings comprising the Group (including the Company) operate a risk framework which defines the enterprise-wide approach to managing risk, including how the Group identifies, measures, manages, monitors and reports on the risks to which it is, or could be, exposed. The Group has a variety of tools and processes to support the identification and measurement of the material risks the Group is (or could be) exposed to in the short, medium and long-term. The risk framework has been adopted by the Boards of the legal entities within the business collectively referred to as "UK Life" (principally consisting of this Company, Friends Life and Pensions Limited, Aviva Life & Pensions UK Limited and Aviva Annuity UK Limited).

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 key risk identification and measurement processes are set out below.

Exposure measurement and monitoring

The primary basis used by the Company to measure and assess risks is the Solvency II SCR which is calculated as Solvency II Own Funds at risk in a 1-in-200 year loss event over a 1 year time horizon. Solvency II SCR is the basis on which the Company sets solvency (economic capital) risk appetite and is used to assess the significance of risks and to appropriately direct resources to their management. Refer to section E.2 of this report for details of the methodology and assumptions used in the calculation of the Company's Solvency II SCR.

The primary risk types measured in the Company's Solvency II SCR calculation are:

- Underwriting risk – Life and health risk (refer to section C.1);
- Market risk (refer to section C.2);
- Credit risk (refer to section C.3); and
- Operational risk (refer to section C.5).

Some categories of risk are not managed by holding capital, principally liquidity risk, which is measured through the liquidity coverage ratio (see section C.4).

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

The Company also measures and assesses risk in terms of its total gross exposure and sum at risk, as well as monitoring risk indicators that might indicate changes in the 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.5.

Changes in the period to risk profile

Sections C.1 to C.5 include details on the key changes to the Group's risk profile in the reporting period.

Risk mitigation

Risks arising across the Group are mitigated through application of elements of the Group's Risk Management Framework, and in particular business standards in respect of financial risk mitigation and reinsurance. 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

Annually the Group Risk function undertakes an assessment, presented to the Group Board Risk Committee, of the effectiveness of the Group's and business units' overall risk management, including specifically the robustness of their control environments in mitigating operational risk. 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 Company writes a diverse mix of business that is subject to similar risks (mortality, persistency etc.). The Company assesses the relative costs and concentrations of each type of risk through the Internal Model. This analysis enables the Company to assess whether accumulations of risk exceed risk appetite.

The main concentrations of underwriting risk for the Company are longevity, persistency, mortality and morbidity. The Company continually monitors these risks and the opportunities for mitigating actions through reinsurance, improved asset liability matching, or innovative solutions that emerge in the market.

Sensitivity analyses

The Company performs sensitivity analyses and stress and scenario testing in order to understand the impact that changes would have on the Company's risk profile, capital generation and SCR. Refer to section C.6.1 for details on the methodology employed, the assumptions and limitations in performing these analyses and the results obtained.

Prudent Person Principle

The Company ensures that its assets are invested in accordance with the prudent person principle as set out in Article 132 (Directive 2009/138/EC) through the collective application of its risk policies and business standards. These ensure the Company 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 Company's asset liability management business standard and certain provisions of the investment management business standard contain mandatory requirements to ensure that the Company develops its own set of key risk indicators and takes into account the risks associated with its investments without relying solely on the risk being adequately captured by the capital requirements. Risk appetites by risk type are also set and monitored by the Company. 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.

C.1 Underwriting risk

C.1.1 Exposure

Underwriting risk is the risk of loss on underwriting activity caused by an adverse change in the value of liabilities. The principal life and health underwriting risks that the Company is exposed to are described below:

- Longevity risk: The risk that annuitants may live longer than expected;
- Mortality risk: The risk that more policyholders die than expected, either due to general trends or due to pandemics or other specific events e.g. terrorism. This risk impacts claims on life insurance products;
- Morbidity risk: The risk that either more customers fall sick than expected or customers recover at a slower rate than expected. This risk impacts claims on critical illness and income protection products;
- Persistency risk: The risk that fewer customers retain existing policies and continue to pay premiums up to their maturity dates compared to expectations;
- Expense risk: The risk that the future costs of managing and administering customer policies are higher than expected; and
- Policyholder behaviour: The risk that the number and timing of customers exercising various choices e.g. paying additional premiums or extending the length of their policy, differs from expectations.

The Company chooses to take measured amounts of underwriting risk provided it has the appropriate core skills to assess and price the risk, and adequate returns are available.

The Company is exposed to the risks 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.

Measurement

The following measurement and analysis of life and health insurance risks is undertaken by the Company with appropriate frequency 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;
- Economic capital calculations, consistent with Solvency II SCR methodology, for principal underwriting risk types. The impact of policyholder behaviour linked to the take-up of insurance options and guarantees risk is captured in the capital requirements for underwriting risk. An allowance for basis risk in risk transfer arrangements is included, where appropriate, in the capital requirements for the underlying underwriting risks;
- Standard stresses for mortality, morbidity, longevity, expense, lapse and policyholder behaviour risks. This output is also used to inform liquidity risk analysis; and
- 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.

The following analysis is undertaken on an annual basis, or more frequently if required, as part of the planning process to support management and monitoring of risk exposures:

- Business mix sensitivities to determine how economic capital requirements would move under different plan scenarios;
- Stress and scenario tests for assumptions that are identified as critical to the profitability and risk profile of the business based on standard stresses;
- 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; and
- Liability adequacy/reserve coverage analysis is used to identify potential liquidity risks.

At 31 December 2016, the underwriting component of the SCR amounted to £2,463m before diversification and tax.

Changes to risk profile in the reporting period

The main change in underwriting risk profile during 2016 was:

- A general increase in exposure due to both falls in interest rates (which have increased liabilities on the balance sheet) and increases in equity markets.

C.1.2 Risk mitigation

The individual underwriting risks are mitigated and managed as follows:

- Mortality and morbidity risks are mitigated by use of reinsurance and by the existence of life concentration limits. The Company selects reinsurers from those approved by the Group, based on local factors, and monitors the aggregation of risk ceded is within credit risk appetite.
- Longevity risk is mitigated by use of reinsurance and monitored against the latest external industry data, emerging trends and likely or possible future trends. The Company monitors exposure to longevity risk and any associated capital implications for its annuity business.
- Persistency risk is managed 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 or more customers ceasing to pay regular premiums than has been assumed. The Company also implements specific initiatives to improve the retention of policies which may otherwise lapse.
- Expense risk is primarily managed through the assessment of profitability and frequent monitoring of expense levels.

Monitoring the effectiveness of risk mitigation techniques

Implementation of the risk mitigation techniques are discussed and then approved via the Company's governance forums (e.g. the Asset and Liability Committee (''ALCO'')), with ongoing effectiveness being monitored as part of 'business as usual' management information, the Group-wide Business Standards attestation process, and periodic Internal Audit reviews, significant findings from which are reported to the Audit Committee.

C.1.3 Risk concentration

The Company's policy on underwriting risks is to avoid concentrations of risk exposure. Underwriting concentration risk is a reflection of too little diversification within or across underwriting risk types. The Company avoids significant concentrations of underwriting risk through its scale, diversity of product lines and concentration risk limits. Risk transfer solutions, primarily through reinsurance, are employed to transfer risks that the Company 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 underwriting activities and reinsurance arrangements and their management and monitoring are considered in section C.3.3.

C.2 Market risk

C.2.1 Exposure

Market risk is the risk of adverse financial impact resulting from changes in fair values or future cash flows of financial instruments due to fluctuations in interest rates, equity prices and property prices. Market risk arises within the Company due to fluctuations in the relationship between the values of liabilities and the value of investments held.

The principal market risk types that the Company is exposed to are described below:

- Equity price risk: The Company is subject to equity price risk arising from changes in the market values of its equity securities portfolio. The most material exposures are to policyholder with-profits and unit-linked funds, which are exposed to a fall in the value of the funds due to increasing costs of policyholder guarantees and falls in the value of annual management charges respectively.
- Property price risk: The Company is subject to property price risk directly due to holdings of investment properties.
- Interest rate risk: Interest rate risk arises primarily from the Company's nominal and real yield curve exposure within both assets and liabilities. Interest rate risk also exists for policies that carry investment guarantees on early surrender or at maturity, where claim values can become higher than the value of backing assets when interest rates rise or fall.

- Foreign currency exchange rate risk: The Company is subject to currency risk from financial instruments held in currencies other than Sterling.
- Derivative risk: The Company is exposed to market risk through its derivative portfolio. Derivatives are used for efficient investment management, risk hedging purposes or to structure specific retail-savings products.
- Correlation risk: The Company 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 SCR and in scenario analysis.

Measurement

For each of the major components of market risk the Company has put in place additional policies and procedures to set out how each risk should be managed and monitored and the approach to setting appropriate risk limits and tolerances.

The management of market risk is undertaken by the Asset and Liability Management (''ALM'') team, which is responsible for monitoring market risk, including the matching of assets and liabilities. Exposures by individual market risk types is monitored through economic capital modelling, sensitivity testing and stress and scenario testing, as well as specific measures for different risk types (for example, duration matching for interest rate risk). Derivative investment activity is overseen by the ALM and Risk teams, which monitor exposure levels and approval of large or complex transactions.

The principal basis used to measure the Company's exposure to market risks is the Solvency II SCR. The sensitivity of the Solvency II Balance sheet surplus and coverage ratio are also key measures of exposure, particularly to interest rate movements (as the SCR, risk margin and transitional measures on technical provisions are themselves sensitive to movements in interest rates). In addition for each risk category, management is responsible for identifying key parameters to be used for risk measurement. For example:

- Shifts in key interest rate-/currency-related parameters relevant to market risk profile (for example 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 or property;
- Changes in price volatility of individual assets or specific asset classes;
- Changes in realised and/or implied inflation; and
- Portfolio sensitivities (for example duration).

These parameters are monitored regularly and significant changes included in management information reported to the ALCO.

At 31 December 2016, the market risk component of the SCR amounted to £2,805m before diversification and tax, and inclusive of the SCR related to credit risk from corporate and government bond holdings.

Changes to risk profile in the reporting period

The main changes in market risk profile during 2016 are:

- A general increase in risk due to higher asset values on the balance sheet;
- The introduction of a hedge to protect the surplus from falls in equity prices reducing the value of annual management charges.

C.2.2 Risk mitigation

Risk mitigation actions by principal market risk types are described below.

- Equity price risk: Direct equity exposures are limited in line with risk preferences. Investment limits require that the Company holds diversified portfolios of assets thereby reducing exposure to individual entities. The Company actively models the performance of equities through the use of stochastic models, in particular to understand the impact of equity performance on guarantees, options and bonus rates. In the principal with-profits funds, a dynamic hedging strategy is in place which aims to protect the surplus within the funds from adverse changes in asset values, in particular equities. Hedging is in place to protect the surplus from falls in equity prices reducing the value of annual management charges earned from unit-linked funds.

- Property price risk: Investment in property is subject to investment limits, liquidity requirements and the expectations of policyholders. The financial impact from changes in property values is examined through stress and scenario analysis.
- Interest rate risk: The Company typically manages interest rate risk by adopting asset liability matching techniques, including the use of a variety of derivative instruments, to minimise the impact of mismatches between the value of assets and liabilities from interest rate movements. However, where any mismatch is within the Company's risk appetite, the impact is monitored through economic capital measures.
- Foreign currency exchange risk: Currency risk from financial instruments held in currencies other than Sterling is limited as nearly all such holdings are backing either unit-linked or with-profits contract liabilities or mitigated by matching liabilities in local currency or hedging.
- Derivatives risk: Collateral is held against derivative transactions. Speculative derivative activity is prohibited. Over the counter derivative contracts are entered into only with approved counterparties, in accordance with the Company's policies. The Company applies strict requirements to derivative administration and valuation processes, and has a control framework that is consistent with market and industry practice.

Monitoring the effectiveness of risk mitigation techniques

In accordance with the Group Financial Risk Mitigation business standard, the Company assesses and documents the effectiveness of arrangements in place to mitigate market and credit risks (financial risks). This assessment is initially undertaken when structuring arrangements and prior to execution. The assessment considers impacts on key metrics including measures of risk (primarily economic capital) and financial measures, including cash flow, IFRS operating profit and expenses. Where the initial assessment indicates that the impact on key metrics is material, further assessment is carried out at appropriately regular intervals throughout the life of the arrangement. These assessments typically include stress testing and sensitivity analysis. Transactions aimed at mitigating risk may be considered in aggregate with the relevant risks.

The Company's ALM team is responsible for monitoring the Company's market risk, including the effectiveness of risk mitigation techniques in place. The Company prepares regular management information on hedging arrangements to ensure appropriate oversight.

C.2.3 Risk Concentration

The Company monitors its investment exposures, in aggregate across all classes of financial instruments (debt securities, equities and other investments), to individual issuers, geographies, sectors, and asset classes to ensure the Company is not individually exposed to significant risk concentrations. This includes look-through, where information is available, to the underlying investments held within investment funds. Further information on how the Company manages, monitors and limits investment exposures is included in C.3.3.

C.3 Credit risk

C.3.1 Exposure

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 the Company, or variations in market values as a result of changes in expectations related to these risks. Credit risk can provide the returns required to satisfy policyholder liabilities and generate returns for our shareholders. Therefore the Company is prepared to accept a degree of credit risk based on our credit risk analysis capability and the structural investment advantages conferred to insurers with long-dated, relatively illiquid liabilities.

The principal credit risk categories that the Company is exposed to are as follows:

- Spread risk is the risk that credit spreads over risk-free interest rates change. Credit concerns (improving or worsening) with respect to the issuer and market factors such as risk appetite and liquidity within the market can give rise to a change in credit spread.
- Default risk is the risk that a counterparty is unable or unwilling to meet its financial obligations when they fall due.
- Rating migration risk is the risk that a change in the external credit rating of a counterparty adversely impacts the Company.

Exposure of the Company to credit risk arises principally through the following asset holdings:

- Debt securities, including investments in sovereign and corporate bonds.
- Loans including policy loans, loans and advances to banks and mortgage loans.
- Reinsurance assets. Where the Company has reinsurance arrangements in place, credit risk arises in relation to the reinsurance counterparties.
- Other assets. Credit risk arises in relation to other assets, including structured asset investments, bank deposits and derivative counterparties.

Measurement

The principal basis used to measure the Company's exposure to credit risk is the Solvency II SCR. In addition, the following factors are used by the Company when measuring credit risk exposure.

- Maximum exposure: The Company's maximum exposure to credit risk of financial assets and reinsurance assets, without taking collateral, credit hedges or reinvestment risk into account, is represented by the carrying value of the financial assets and reinsurance assets recognised in the Solvency II balance sheet.
- Credit ratings: Credit ratings (both internal and external) are used as indicators of credit risk to help determine risk management actions, investment decisions and asset allocation.
- Loan specific factors: The Company uses loan to value, interest and debt service cover, and diversity and quality of the tenant base metrics to monitor exposures to commercial mortgage loans. The risk characteristics of commercial mortgage loans are assessed before acquisition and are monitored thereafter.

The majority of the Company's credit risk arises from corporate and government bond holdings. This credit risk is reported within the market risk component of the SCR. In addition to this, at 31 December 2016, the counterparty default risk component of the SCR amounted to £323m before diversification and tax.

Changes to risk profile in the reporting period

The main changes in the credit risk profile during 2016 are:

- A general increase in risk due to higher asset values on the balance sheet.

C.3.2 Risk mitigation

The Company's approach to managing credit risk recognises that there is a risk of adverse financial impact resulting from fluctuations in the credit quality of third parties including default, rating transition and credit spread movements. The Company implements credit risk management processes including a limit framework (section C.3.3), operates specific risk management committees, and ensures detailed reporting and monitoring of its exposures against pre-established risk criteria.

The Company may also impose ad-hoc restrictions to control exposures. The Company also uses ad-hoc restrictions to reserve certain counterparties for a particular business activity. For example direct investment in the securities of principal reinsurance counterparties is restricted.

In addition to the risk mitigation techniques described above, specific credit risk mitigation techniques apply to certain portfolios of assets.

Mortgages are secured by property assets. Further credit risk mitigation is provided by maintaining a diversified portfolio in terms of property type, location, tenants and the spread of loans written over time.

The Company has significant securities financing operations. The credit risks within this activity are mitigated by over-collateralisation and minimum counterparty credit quality requirements which are designed to minimise residual risk. The Company operates strict standards around counterparty quality, collateral management, margin calls and controls.

The Company is also exposed to counterparty credit risk through derivative trades. This risk is mitigated through collateralising almost all trades (the exception being certain FX trades where it has historically been the market norm not to collateralise). Residual exposures are captured within the Company's credit management framework.

For unit-linked business the policyholder bears the direct market risk and credit risk on investment assets in the unit funds and the shareholders' exposure to credit risk is limited to the extent of the income arising from asset management charges

based on the value of assets in the fund. The exception to this is credit risk on certain reinsured unit-linked business which is borne by the Company.

Monitoring of the effectiveness of risk mitigation techniques

The processes for monitoring the effectiveness of risk mitigation techniques in respect of credit risk and market risk are set out in section C.2.2.

C.3.3 Risk concentration

The Company operates a credit limit framework, which limits investments in individual issuers, geographies, sectors, and asset classes to ensure it is not exposed to significant concentrations of credit risk. Credit concentrations are monitored as part of the regular credit monitoring process and are reported to the ALCO.

Credit limit framework

The credit limit framework is based on three different layers (counterparty, sector and country) and is supported by a number of escalation frameworks which seek to ensure larger and/or higher risk transactions and activities are escalated appropriately. Specific escalation frameworks exist for ALM and investment decisions, and for derivative transactions.

The counterparty limit framework aims to avoid concentrations to single counterparties and to encourage issuer diversification within the portfolio. The limits combine to restrict the total exposure to a single counterparty, both in terms of balance-sheet exposure and shareholder exposure, and within that restrict the amount of high risk assets or exposures that can be held.

Concentration risk is further managed by sector concentration limits which are used to mitigate against, or manage, concentrations to specific sectors, and geographical areas to ensure appropriate geographical diversification and appropriate exposure limits depending on the risk profile of the country.

Significant concentrations

The Company holds a diversified portfolio of credit risk due to its internal credit limit framework which limits exposure to individual concentrations of risk.

The Company is exposed to concentrations of risk with individual reinsurers, due to the nature of the reinsurance market. The Company places reinsurance with those reinsurers that have acceptable credit ratings. The Company operates a policy to manage its reinsurance counterparty exposures and the impact from reinsurer default is measured regularly, in particular through Solvency II stress and scenario testing.

C.4 Liquidity risk

C.4.1 Exposure

Liquidity risk is the risk that financial obligations to policyholders and other relevant external and internal parties cannot be met in a timely and cost-effective manner as they fall due. Liquidity issues may arise from uncertainty in the value and timing of liabilities as well as uncertainty in the ability to realise assets as cash to meet obligations.

Sources of liquidity risk are those activities or external factors that could alter the liquidity needs and liquidity resources in a stress scenario. The Company is responsible for identifying where liquidity risk exists and the factors that may increase the liquidity risks it faces at either the Company or specific fund level when setting risk appetite. Some examples of sources of liquidity risk are:

- Higher than expected claims. An increase in surrenders (for example a mass lapse event for unit-linked business) could increase the claims paid in the short term but reduce those in the longer term. In addition, increases in the level of annuity claims (for example through fewer deaths than expected) would also increase the claims paid over the medium term.
- Collateral and margin calls on derivatives following movements in underlying market values.
- Timing mismatches in cash inflows and outflows including delays in reinsurance settlements and reinsurance defaults, and mismatches between annuity claims and expenses versus investment income and redemption proceeds.

The non-profit fund is particularly susceptible to spikes in liquidity needs, although these spikes are recognised and actively managed to limit their impact on the Company.

Measurement

Liquidity risk appetite is expressed and measured through both absolute level targets and the Liquidity Coverage Ratio ("LCR") which measures the extent to which liquid assets held and stressed inflows are sufficient to meet liquidity requirements over a specified time horizon. The Company has short and long term risk appetites for legal entities and ring-fenced funds.

Changes to risk profile in the reporting period

There were no material changes in the Company's liquidity risk profile during 2016.

Sensitivity analysis

Stress and scenario testing, including reverse stress tests, is undertaken by the Company for the purpose of recovery planning and to test the resilience of the business plan. This testing specifically considers impacts on the Company's liquidity position.

C.4.2 Risk mitigation

The Company manages and mitigates its exposure to liquidity risk as follows:

- A liquidity risk appetite is set which requires that sufficient liquid resources be maintained to cover net outflows in a stress scenario.
- Maintenance of undrawn committed borrowing facilities.
- Asset liability matching methodology which optimises asset portfolio maturity structures to ensure cash flows are sufficient to meet liabilities when they fall due.
- Stock-lending of assets, in particular sale and repurchase agreements.

In addition the Company has a contingent funding plan that permits limited borrowing from other companies within the Group, and may also request additional borrowing from other Group companies (subject to relevant approvals). To pre-empt the need to initiate the contingent funding plan, the Company sets liquidity buffers and triggers to enable action to be taken before target levels are breached.

Monitoring the effectiveness of risk mitigation techniques

In addition to the overall monitoring of the risk mitigation techniques described in the Overview section, the Company monitors the effectiveness of its liquidity risk mitigation as follows:

- Assurance work (e.g. testing) to ensure that controls that enable effective risk management are in place and work effectively.
- Continual monitoring of actual and projected liquid resources and cash inflows and outflows against liquidity risk appetites and liquidity buffers.

C.4.3 Risk concentration

Concentration of liquidity risk can occur if the Company's assets are invested in a limited number of issuers, asset classes and sectors and, in the event of an external shock, market liquidity for these investments disappears and the assets cannot be realised for cash. The measures taken to avoid such risk concentrations are set out in section C.3.

The diversity of sources of liquidity available to the Company helps reduce concentration of liquidity risk.

C.4.4 Additional information on liquidity risk:

Expected Profit in Future Premiums ("EPIFP")

EPIFP is the expected present value of future cash flows which result from the inclusion in technical provisions of premiums relating to existing insurance and reinsurance contracts that are expected to be received in the future. It is calculated as the difference between:

- The net of reinsurance best estimate liabilities of the contract.

- An alternative scenario for the contract under which no future premiums are paid. Excluding the premiums 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.

The amount of EPIFP was £329 million as at 31 December 2016.

C.5. Operational risk

C.5.1 Exposure

Operational risk is the risk of loss, arising from inadequate or failed internal processes, people and systems, or external events including changes in the regulatory environment. There is a limited tolerance for operational risk and the aim is to reduce this risk as far as is commercially sensible.

Conduct risk is an aspect of operational risk and is the risk that positive customer outcomes are not achieved. It arises throughout the whole product lifecycle from the development of products, from the sales process to servicing policies and handling claims.

Reputational risk can result from operational 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 and 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 if customers' expectations for the product change.

Measurement and monitoring

The RCSA process, as described in section B.3.1, 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. A residual risk impact and probability assessment is then performed. Residual impact is assessed quantitatively on the basis of financial loss and misstatement and qualitatively for reputational and conduct considerations.

To the extent that operational risks cannot be fully mitigated and in recognition of the risk of control failure (i.e. due to ineffectiveness in design or performance), the Company holds economic capital to cover these risks within the Solvency II SCR.

Changes to risk profile in the reporting period

The Company's exposure to risk such as data theft, conduct regulatory breaches and customer service interruption due to IT systems failure increased in 2016 as a result of the following factors:

- The increasing importance to the Company's strategy of digital interaction with our customers and advanced data analytics.
- The conduct agenda of the European Insurance and Occupational Pensions Authority ("EIOPA"), the FCA and other regulators.
- The increasing cyber security threat, as evidenced by a number of high profile cyber security breaches for corporates in the UK and elsewhere.

The exposure is expected to continue to increase into the future.

C.5.2 Risk management and mitigation

Most operational risks are considered preventable and are managed through business controls. Our preference is to improve our business processes through reduction of errors and rework, in order to achieve:

- Reduced operational risk and associated losses, hence improving cost to income ratio and lessening variability in financial performance;
- Improved customer outcomes and employee satisfaction;
- Sustained customer confidence; and

- A positive regulatory reputation.

The Group's business standards set out the minimum control objectives and controls that each business area is expected to have in place. Operational risk limits and tolerances act as quantitative boundaries that constrain specific risk-taking activities at an operational level.

The Company records and analyses operational risk events, arising from inadequate or failed processes, people or systems or external events, to ensure remedial action is taken, lessons are learnt and where the event impacts customers they are treated fairly. As well as events that result in losses, this includes risk events which do not give rise to a financial loss, such as near misses or fortuitous gains and also reputational and customer impacts. The lessons learned enable business areas to highlight areas for improvement, implement corrective actions to avoid recurrence, and improve our risk assessment and understanding of operational risk, feeding into the RCSA process.

Monitoring of the effectiveness of risk mitigation techniques

All of the three lines of defence have an important role to play in monitoring the effectiveness of the controls that are in place in respect of operational risk. More details on these three lines of defence are included in section B.1.1.

C.5.3 Risk concentration

Concentrations of operational risk arise when there is dependency on a single supplier to provide a product or service supporting a business critical function. The Company is 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.

The Company's operations are spread across a number of geographical office locations helping to ensure continuity of service if a catastrophic event results in an office being out of action. Additionally, the Company has a series of business continuity plans in place 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, enabling the Company to leverage the strength of the brand and supporting delivery of the 'True Customer Composite' anchor to our business strategy. The Company is therefore particularly vulnerable to any operational failures that could adversely impact public perception of the 'Aviva' brand.

C.6 Any other information

C.6.1 Sensitivity analyses

As set out in the Risk Profile Overview section, the primary basis used by the Company to measure risks is the Solvency II SCR. The Company performs sensitivity analysis, and 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 Company's risk profile and Solvency II coverage ratio. This section describes the sensitivity analyses performed, and section C.6.2 describes the Company's stress and scenario testing.

The sensitivity analyses performed by the Company include consideration of the sensitivity of the Company's Solvency II cover ratio to a range of economic and non-economic assumptions as follows:

Economic assumptions

- 25 and 100 basis point increases and 25 and 50 basis point decreases in the risk-free rate, including all consequential changes (including assumed investment returns for all asset classes, market values of fixed interest assets, and risk discount rates).
- 50 and 100 basis point increases and 50 basis point decrease in credit spreads for corporate bonds with credit rating A at 10 year duration, with the other ratings and durations stressed by the same proportion relative to a stressed capital requirement.
- 10% increase and 10% and 25% decreases in market values of equity assets.

Non-Economic assumptions

- 10% increase in maintenance expenses and investment expenses.
- 10% increase in lapse rates.
- 5% increase in both mortality and morbidity rates for life assurance.
- 5% decrease in mortality rates for annuity business.

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 on with-profits policies are typically adjusted to reflect changes to future investment returns.

Transitional relief on technical provisions is assumed to be recalculated in the interest rate and annuitant mortality sensitivities. For business where a matching adjustment applies, the matching adjustment is assumed to change by 77.5% of the change in credit spread.

The table below shows the absolute change in cover ratio under each sensitivity:

Sensitivities (net of tax and gross of non-controlling interests)		Absolute change in solvency cover ratio excluding fully ring-fenced funds %
Changes in Economic assumptions	25bps increase in interest rate	5%
	100bps increase in interest rate	18%
	25bps decrease in interest rate	(5)%
	50bps decrease in interest rate	(10)%
	50bps increase in corporate bond spreads	0%
	100bps increase in corporate bond spread	2%
	50bps decrease in corporate bond spread	(1)%
	10% increase in market value of equity	(1)%
	10% decrease in market value of equity	1%
	25% decrease in market value of equity	4%
Changes in Non-Economic assumptions	10% increase in maintenance and investment expenses	(8)%
	10% increase in lapse rates	(0)%
	5% increase in mortality/morbidity rates - life assurance	(4)%
	5% decrease in mortality rates - annuity business	(6)%

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 Company's assets and liabilities are actively managed. Additionally, the Solvency II position of the Company may vary at the time that any actual market movement occurs. For example, the Company'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 actions. Other limitations in the above sensitivity analysis include the use of hypothetical market movements to demonstrate potential risk that only represent the Company's view of possible near-term market changes that cannot be predicted with any certainty, and the assumption that all interest rates move in identical fashion.

C.6.2 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 inform decision-making. A series of stress tests are performed to analyse their impact on the Company's solvency. These tests include the Company 1-in-X reference stresses driven by the Company's risk profile as well as several scenarios as part of the Company's Recovery Planning and Liquidity Risk management planning processes.

Section D
Valuation for Solvency Purposes

In this chapter

D.1 Assets

D.2 Technical Provisions

D.3 Other Liabilities

D.4 Alternative methods of valuation

Section D: Valuation for solvency purposes

The 'Valuation for Solvency Purposes' section of the 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 and liability class.

Assets and liabilities under Solvency II are valued in accordance with the Company's accounting policies under UK GAAP Financial Reporting Standard (FRS) 101, unless stated otherwise in sections D.1 'Assets', D.2 'Technical Provisions' and D.3 'Other liabilities'. A summary of the Company's accounting policies can be found in the Accounting Policies note of the Company's 2016 financial statements.

The table below sets out a summarised balance sheet as at 31 December 2016. It compares assets and liabilities as reported in the financial statements (column a), a reclassified UK GAAP balance sheet as presented in the balance sheet QRT (column b) and the Solvency II balance sheet (column d).

Where differences are present either in respect of the classification or measurement of assets or liabilities between UK GAAP and Solvency II, they have been presented in the below table, columns (c) and (e) and a qualitative description provided for all material items in sections D.1 'Assets', D.2 'Technical Provisions' or D.3 'Other Liabilities'.

Balance Sheet – UK GAAP and Solvency II

As at 31 December 2016	Note from financial statements	Note	UK GAAP (a) £m	UK GAAP reclassified (b) £m	Variance (b-a) (c) £m	Solvency II (d) £m	Variance (d-b) (e) £m
Assets							
Intangible assets	p & 12	D.1.1	15	15	-	-	(15)
Deferred acquisition costs	s & 20	D.1.2	491	491	-	-	(491)
Property, plant and equipment held for own use	o & 14	D.1.3	1	5	4	5	-
Investment property	o & 14	D.1.3	1,020	1,016	(4)	1,016	-
Participations	o & 17	D.1.4	4,111	9,951	5,840	9,810	(141)
Equities	o & 14	D.1.5	2,417	2,109	(308)	2,109	-
Bonds	o & 14	D.1.5	19,699	21,021	1,322	21,021	-
Collective investments undertakings	o & 14	D.1.5	538	451	(87)	451	-
Derivatives	o & 14	D.1.5	746	746	-	746	-
Assets held for index-linked and unit-linked funds	14	D.1.6	27,761	26,467	(1,294)	26,467	-
Loans and mortgages	o & 14	D.1.7	930	1,123	193	1,123	-
Reinsurance recoverables	18	D.1.8	8,132	8,076	(56)	7,078	(998)
Cash and cash equivalents	r	D.1.9	6,491	1,096	(5,395)	1,096	-
Receivables (insurance, reinsurance, intermediaries and trade)	q	D.1.10	231	301	70	301	-
Other assets (including prepayments and accrued income)	q	D.1.11	275	15	(260)	15	-
Total assets			**72,858**	**72,883**	**25**	**71,238**	**(1,645)**
Liabilities							
Technical provisions	v,w & 25	D.2.1	66,137	65,738	(399)	61,701	(4,037)
Provisions other than technical provisions	aa & 28	D.3.1	95	99	4	99	-
Deferred tax liabilities	n & 10	D.3.2	352	352	-	383	31
Derivatives	30	D.3.3	672	672	-	672	-
Financial liabilities other than debts owed to credit institutions	u	D.3.4	-	227	227	227	-
Insurance and intermediaries payables		D.3.4	30	429	399	429	-
Reinsurance payables	29	D.3.4	32	32	-	32	-
Payables (trade, not insurance)	y & 30	D.3.4	572	366	(206)	366	-
Subordinated liabilities	24	D.3.5	856	856	-	927	71
Other liabilities	t	D.3.6	808	808	-	12	(796)
Total liabilities			**69,554**	**69,579**	**25**	**64,848**	**(4,731)**
Excess of assets over liabilities			3,304	3,304	-	6,390	3,086

There are a number of classification differences between the presentation of the balance sheet in the financial statements and the Solvency II balance sheet which have no net asset impact and therefore no impact on Solvency II measurement. The impact of these changes is shown in column c above.

The key reclassifications are as follows:

- Reclassification of £1,294 million of assets backing contracts liabilities which qualify as index-linked under UK GAAP, but not under Solvency II. These assets are reclassified as bonds.
- Reclassification of £5,395 million of liquidity funds in cash equivalents which meet the definition of participations under Solvency II.

A number of valuation differences exist in respect of the assets and liabilities reported in the Company balance sheet under Solvency II compared to UK GAAP FRS 101 as at 31 December 2016. The nature of the material differences are set out in section D.1 'Assets', D.2 'Technical provisions' and D.3 'Other liabilities'. The net impact of these differences is an increase in net assets of £3,086 million. This primarily reflects the differences in assumptions and reserving methodology used under Solvency II compared to UK GAAP.

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 they could be exchanged between knowledgeable willing parties in an arm's length transaction.

A description of the basis of valuation under Solvency II along with the valuation differences between Solvency II bases and the UK GAAP financial statements, by asset class, is provided below.

D.1.1 Intangible assets

Intangible assets recognised in accordance with UK GAAP comprise present value of acquired in force business (PVIF).

PVIF is set to nil in the Solvency II balance sheet as required as the asset cannot be sold separately and instead the associated cash flows are included in the measurement of Solvency II technical provisions.

D.1.2 Deferred acquisition costs

Deferred acquisition costs valued at £491 million for UK GAAP purposes are set to nil in the Solvency II balance sheet as required and instead the associated future profit cash flows supporting the deferred acquisition costs are included in the measurement of Solvency II technical provisions.

D.1.3 Investment property

Investment property is measured at fair value for both Solvency II and UK GAAP purposes. The fair values are assessed by qualified external valuation specialists or by qualified staff and reflect rental income and other assumptions that market participants would use when pricing the investment property under current market conditions. Further information on the valuation of investment properties is included in section D.4.

D.1.4 Participations

The Company's participations in related undertakings are valued in the Solvency II balance sheet at the Company's proportionate equity share of the excess of assets over liabilities (valued on a Solvency II basis) of each related undertaking.

Under UK GAAP, subsidiaries, associates and joint ventures are stated at their fair values, estimated using applicable valuation models.

D.1.5 Financial investments

All financial investments are measured at fair value for both Solvency II and UK GAAP purposes. Fair value is obtained from quoted market prices or, if these 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 a quoted market price for a similar asset is included in section D.4.

D.1.6 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 UK GAAP purposes. This category includes most asset types covered by D.1.5.

D.1.7 Loans and mortgages

Under Solvency II and UK GAAP, loans are measured at fair value. The valuation technique used is an income approach, which reflects the present value of cash flows the loan is expected to generate calibrated as far as possible to market observable parameters.

D.1.8 Reinsurance recoverables

Reinsurance recoverables are calculated as a probability-weighted average of discounted future cash flows relating to reinsurance contracts, adjusted for the expected losses due to counterparty default. Only reinsurance cash flows that relate to cash flows included in the best estimate liability are included. The difference in value under Solvency II compared with UK GAAP is driven by the differences in valuation methodology for technical provisions (refer to section D2.4). All internal reinsurance is valued in the same way as external reinsurance.

D.1.9 Cash and cash equivalents

Cash and cash equivalents comprise cash at bank and in hand, deposits held at call with banks, treasury bills and other short term highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of change in value. Such investments are those with less than three months' maturity from the date of acquisition, or which are redeemable on demand only with an insignificant change in their fair values. The Solvency II fair value of cash is equivalent to the UK GAAP value.

D.1.10 Receivables (insurance, reinsurance, intermediaries and trade)

Under Solvency II, receivables are held at fair value, being the amount for which they could be exchanged between knowledgeable parties in an arm's length transaction. All the Company's receivables are due within one year. Where receivables are expected to be recovered within one year, the Solvency II fair value is considered equivalent to the UK GAAP carrying value.

D.1.11 Other assets

Other assets consist of prepayments and accrued income which are held at fair value under both Solvency II and UK GAAP.

D.2 Technical provisions

This section provides a definition of Solvency II technical provisions, the methodology and main assumptions used in the valuation of the Solvency II technical provisions, the total value of Solvency II technical provisions split by material lines of business, a comparison of the valuation of Solvency II technical provisions with UK GAAP technical provisions and a description of the level of uncertainty in 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.

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 after making allowance for the credit risk adjustment and the volatility adjustment (''VA'') or matching adjustment (''MA'') as required (described in section D.2.2.2).

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

Technical provisions also include the transitional measure on technical provisions (''TMTP'') which allows firms to transition from the Solvency I liabilities to the Solvency II technical provisions over a period of 16 years for business written prior to the Solvency II implementation date of 1 January 2016. This is described in more detail in section D.2.2.1(c).

The following general principles apply to technical provisions valuation:

- The calculation of technical provisions is performed on a going concern basis. This means a proportion of expected future costs (such as general overheads) will be covered by future new 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 deliberate margins for prudence included.

D.2.2 Technical provisions methodology and assumptions

Technical provisions are calculated in accordance with the Solvency II Directive, Delegated Regulations and regulator guidance. This section describes how the rules and guidance have been applied to the Company. Unless otherwise stated the methodology and assumptions apply to all types of business.

D.2.2.1 Methodology

(a) *Valuation methodology*

Cash flow modelling

When deriving the probability-weighted average of the present value of future cashflows, a deterministic valuation approach, based on best estimate assumptions, is used for most of the business. The exception is for contracts with embedded options and guarantees, in particular with-profits participation business, where a more sophisticated stochastic approach based on the average of a number of scenarios is used. Reinsurance cash flows are modelled as well as cash flows gross of reinsurance.

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

Policy grouping

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

Minimum technical provision per policy

Technical provisions for insurance contracts are allowed to be negative where future cash in-flows are expected to exceed future cash out-flows.

The technical provisions of an insurance or reinsurance contract may be lower than the surrender value available to the policyholder of the underlying contract.

Contract Boundaries

The calculation of the best estimate liability allows for any boundaries of the insurance contract. 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 which 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.

An immediate contract boundary also applies to unit-linked regular premium savings and pensions policies which do not have material risk benefits or guarantees.

Unit-linked policies invested in charge capped funds are treated as having an extended contract boundary which includes expected future premiums. As a consequence auto-enrolment default funds, stakeholder pensions and products with voluntary charge caps (set at a similar level to stakeholder pensions) are considered to have an extended contract boundary.

Where contract boundaries are applied, these contracts are treated as paid-up at the valuation date. The expense and lapse assumptions are reviewed to ensure that they are appropriate to the restricted contract boundary.

Financial options and guarantees

Where options and guarantees are contract features, a stochastic approach to valuation is used, unless the risk is immaterial or there is insufficient data to calibrate the model.

Management actions

As part of the best estimate assumptions, the actuarial and statistical methods used to calculate the technical provisions take account of future management actions. These actions reflect what management would reasonably expect to carry out 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 in Solvency II.

The most significant management actions are:

- Changes in regular and final bonus rates;
- Changes to market value reduction factors and surrender bases; and
- Changes to the target payout ratio.

The impact of any assumed management actions on other assumptions is taken into account within a certain valuation scenario. The effects of management actions on policyholder behaviour, and on the related expenses, are taken into consideration. Future management actions allow for relevant legal or regulatory constraints.

The Company 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 a number of areas including:

- The identification of actions that are relevant to the valuation of the technical provisions;
- The identification of specific circumstances in which the actions would or would not be able to be carried out;
- The order in which the actions would be carried out, and the applicable governance requirements;
- Ongoing work required to ensure that the undertaking is in a position to carry out the actions;
- Description of how the actions have been reflected in the calculation of the best estimate liability including a quantitative impact on the best estimate liability;
- Description of the applicable internal reporting procedures for the actions implemented in the calculation of the best estimate liability.

Basis, methods and assumptions applicable to particular classes of business

Unit-linked business

Unit-linked business is valued as the face value of the units at market bid price, together with allowance for non-unit cash flows, including mortality and other claim benefits, future expenses and policy charges. Allowances are included where appropriate for loyalty bonus and for waiver of premium benefits, permanent health benefits, permanent total disability benefits and guaranteed insurability options.

Non-unit reserves are calculated by projecting cash flows on a monthly basis for each month that the policy is expected to remain in force. Explicit allowance is made for future commission where appropriate.

A non-unit reserve is determined along similar lines for unitised with-profits business where the investment liability arises in a with-profits fund, but other policy benefits, charges and expenses arise in the non-profit fund.

Ring-fenced funds ("RFFs")

The treatment of cash flows between RFFs (e.g. with-profits funds) and other funds is also taken into account. For example:

- Where there is an expense charging arrangement between a 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 is held outside the with-profits fund in the non-profit fund.
- Where with-profits business is written on a 100:0 basis and the shareholder is exposed to annual management charges less expenses ("C-E") on this business, the C-E cash flows are reflected in the non-profit fund and all other cash flows are reflected in the with-profits fund.
- Where internal reinsurance exists on with-profits policies, which allocate pre-defined sources of surplus between a with-profits fund and a non-profit fund, the cash flows modelled in each fund will follow the pre-defined formula as defined in the with-profits scheme rules.

The technical provisions take into account all payments to policyholders (and beneficiaries) including future discretionary bonuses consistent with paying out the asset share of the policies, 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 the future discretionary benefits.

In line with Solvency II requirements, technical provisions exclude payments representing surplus funds. As a consequence, for with-profits business, in line with guidance received from the PRA, only future benefits arising from enhancements that are fully consolidated into asset shares have been assumed in the calculation of the technical provisions.

Reinsurance accepted

Reinsurance accepted is valued in the same way as direct written business using a discounted cash flow approach. This is almost entirely business reinsured from Friends Life & Pensions Limited ("FLP").

(b) Valuation components

Cash flows in scope

For life insurance obligations (lines of business 29-32), 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 cash in-flows	Gross cash out-flows
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, renewal commission. Other items which are charged to policyholders (or required to settle the obligations): Taxation
Reinsurance cash in-flows	**Reinsurance cash out-flows**
Reinsurance recoveries in respect of gross claims/benefit payments, Reinsurance commissions including profit commissions. Floating leg payments in respect of longevity swaps.	Future reinsurance premiums (including adjustment premiums and reinstatement premiums). Commission Reinsurance refunds. Fixed leg payments in respect of longevity swaps.

Future premiums

Future premiums are projected using persistency assumptions and contract boundaries appropriate to each class of business. Premium levels will also reflect the impact of other decrements such as mortality.

Death and other claim benefits

Death and other claims benefits are projected using decrements appropriate to each class of business, including persistency, mortality and morbidity.

For deferred annuity products, the value of any benefit payable on death during the deferred period is added to the value of the deferred annuity. For deferred annuities continued beyond the normal pension age, the cash available at the normal pension age is accumulated with interest.

For contracts which have fixed benefit increases the valuation provides for these increases within the discounted cash flow method.

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.

Tax

The best estimate liability includes tax payments charged to policyholders or those which are required to settle the insurance liabilities. This includes the Basic Life Assurance and General Annuity Business ("BLAGAB") tax on investment income less expenses (I-E) but tax on company profits is not included. Policyholder tax is modelled as a separate cash flow rather than implicitly.

For most lines of business, future tax on I-E is based on a deterministic model. For the with-profits participation business, where a stochastic liability model is used, the tax calculation is based on the average I-E over a range of scenarios.

Reserves are established (or credit is taken) for charges to funds reflecting tax on unrealised gains (or losses) for unit-linked business as part of the unit linked liabilities.

Options and guarantees

The most material options and guarantees are in the Company's with-profits funds. 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, the value is included within Reinsurance Recoverables in the balance sheet (see section D.1.8).

(c) Transitional arrangements (unaudited)

The TMTP allows firms to transition from the Solvency I liabilities to the Solvency II technical provisions over a period of 16 years for business written prior to the Solvency II implementation date of 1 January 2016. Amortisation of 1/16th of the TMTP occurs on 31 December each year. The TMTP is recalculated at least every 2 years with the first recalculation on these grounds being on 1 January 2018. A recalculation may also be undertaken if a company's risk profile materially changes.

An unrestricted TMTP is based on the difference between the following two amounts:

- The technical provisions on a Solvency II basis, including the impact of the MA and VA where applicable, and after deduction of amounts recoverable from reinsurance at the valuation date;
- The Solvency I Pillar 2 (ICA) technical provisions, after deduction of the amounts recoverable from reinsurance and allowing for any relevant individual capital guidance (ICG) at the valuation date.

The TMTP is restricted to ensure that the Solvency II financial resources (defined as the sum of the Solvency II technical provisions and other non-technical liabilities after application of transitional relief and the solvency capital requirement) are no lower than the most onerous of the Solvency I Pillar 1 financial resources and Solvency 1 Pillar 2 financial resources (defined as the sum of the Pillar 2 technical provisions, other non-technical liabilities, solvency capital requirement plus ICG).

The TMTP is calculated at company level and is applied to technical provisions for the relevant funds. Within technical provisions the TMTP is applied to the risk margin first. Where the total TMTP exceeds the total risk margin (in respect of business written prior to the Solvency II implementation), the excess is allocated to the best estimate liability. Within risk margin and best estimate liabilities, TMTP is allocated to each line of business in proportion to its contribution to the total deduction. Where a line of business contributes a negative amount to the TMTP, this is zeroised and allocated to the other lines of business.

The transitional measure at 31 December 2016 for FLL was zero. PRA Supervisory Statement 6/16 permits the use of a transitional measure that is less than the maximum calculated amount. In accordance with this the transitional measure at 31 December 2016 for the subsidiary FLP is set to zero rather than the calculated amount of £186m (unaudited). Approval has been received from the PRA to reset the transitional measure to zero following approval of the Partial Internal Model, effective from 16 February 2017.

The Company does not make use of the transitional risk-free interest rate-term structure provision for any of its business.

D.2.2.2 Assumptions

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 deliberate margins for prudence included.

The table below summarises the main assumptions used in the calculation of the best estimate liability:

Economic Assumptions	Non-Economic Assumptions
Risk-free rates	Assured mortality
Credit risk adjustment	Critical illness (morbidity) rates
Matching adjustment	Annuitant mortality
Volatility adjustment	Persistency
Reinsurance counterparty default allowances	Guaranteed annuity option take-up rates
Expense inflation	Expenses
Tax	Income protection inception and termination rates
Asset volatility and correlations (with-profits business only)	

Economic assumptions are reviewed monthly while non-economic assumptions are reviewed at least on an annual basis to ensure that these remain appropriate, relevant and realistic. The choice of assumptions is validated through experience analyses and, where available and appropriate, benchmarked against external sources.

Approximations are employed where credible data is unavailable, predominantly for small blocks of business or assumptions considered to be relatively immaterial.

(a) Economic assumptions

The economic assumptions for all lines of business are set out in the sections below. The basic risk-free rate curves used to value the technical provisions reflect the curves, credit risk adjustment (“CRA”), volatility adjustment (“VA”) and fundamental spread (“FS”) for the matching adjustment (“MA”) published by EIOPA.

Risk free discount rates

The GBP risk-free rates at key durations, used to value the technical provisions at full year 2016 are stated in the table below. The figures shown below allow for a CRA of 17 bps.

Risk-free rates	1 year	5 years	10 years	15 years	20 years	40 years
GBP	0.38%	0.69%	1.08%	1.26%	1.32%	1.16%

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, as shown in the table below.

Currency	Entry point for extrapolation of risk-free rates (years)	Duration to convergence to ultimate forward rate (years)	Ultimate forward rate pa
GBP	50	40	4.2%

Volatility adjustment

The VA is intended to reflect temporary distortions in spreads caused by illiquidity in the market or extreme widening of credit spreads. The VA reduces technical provisions by increasing the discount rate used to calculate the best estimate liability. VAs are prescribed by EIOPA on a currency and country basis.

The PRA has approved the application for the VA to be applied in the Company. The VA is applied to all those liabilities where a MA is not applied with the exception of unit linked business where no application was made.

The GBP VA used at 31 December 2016 is shown in the table below.

Volatility adjustment (bps)	31 December 2016
GBP	30

The impact of Long Term Guarantees and Transitional measures is disclosed in QRT S.22.01.04 using a step-by-step approach. The impact of setting the volatility adjustment to zero is set out below:

31 December 2016 £m	Including volatility adjustment (A)	With volatility adjustment set to zero (B)	Impact of removing volatility adjustment (C) = (B) – (A)
Technical Provisions	61,701	61,993	292
Eligible own funds to meet SCR	6,559	6,461	(98)
SCR	4,231	4,162	(69)
MCR	1,058	1,040	(17)

Note that the quantification of the impact of setting the volatility adjustment to zero is after setting the MA to zero and the removal the TMTPs (nil at 31st December 2016).

Matching adjustment

The MA is 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 to 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 relates to illiquidity risk.

The PRA has approved the application for the MA to be applied in the Company.

The MA used for YE2016 is shown in the table below.

Matching adjustment (bps)	FLL NPF	FLL FP WPF	FLL WL WPF
GBP	117	108	53

The MA is derived from the spread over risk-free on the assigned portfolio of assets, net of an allowance for default and downgrade (known as the fundamental spread). The fundamental spreads applied are prescribed by EIOPA.

The table below shows the asset classes that are considered to be eligible for the MA portfolio with the market value of those assets used for the MA calculation.

31 December 2016 Market Value (£m)	Total eligible assets		
	FLL NPF	FLL FP WPF	FLL WL WPF
UK Government bonds	1,800	87	11
Overseas Government and Supranational bonds	225	76	0
Corporate bonds and private placements	7,582	1,585	13
Infrastructure	116	-	-
Cash	166	27	1
Other	(294)	-	-
Total	9,595	1,775	25

The impact of Long Term Guarantees and Transitional measures is disclosed in QRT S.22.01.04 using a step-by-step approach. The quantification of setting the MA to zero is set out below:

31 December 2016	Including MA (A)	Setting MA to zero (B)	Impact of removing MA (C) = (B) – (A)
Technical Provisions	61,993	63,410	1,417
Eligible own funds to meet SCR/MCR	6,461	4,741	(1,720)
SCR	4,162	5,606	1,444
MCR	1,040	1,401	361

The impact on eligible Own Funds to meet SCR in the table above includes the loss of MA in the FLP subsidiary of the Company. Note that the quantification of the impact of setting the matching adjustment to zero is after the removal of TMTPs (nil at 31 December 2016) and the setting of the VA to zero. In practice the impact may be lower if the Company were able to apply the VA in place of the MA should the latter no longer be available.

Reinsurance counterparty default allowances

Reinsurance counterparty default risk for both internal and external counterparties is allowed for in calculating the best estimate liability. Reinsurance counterparty default in the best estimate liability depends on:

- the probability of default based on the credit rating of the counterparty and the year of projection; and
- the recovery rate which is a constant over time, but varies by reinsurer.

Expense inflation

Future expense inflation is allowed for by using a future inflation RPI curve generated from the Economic Scenario Generator (ESG) model. Expenses are generally assumed to increase in line with RPI. Where future increases are specified in expense agreements, the assumption reflects the terms of that agreement.

Tax

The tax assumptions used at 31 December 2016 are shown in the table below.

Parameter	31 December 2016
Corporation tax (current year)	20%
Corporation tax (future profits)	Reducing to 17% by 2021
Policyholder tax	20%

For BLAGAB business, a rate of taxation of 20% has been assumed in respect of income on fixed interest stock and property. Indexation has been allowed for in projected capital gains before applying the 20% rate for BLAGAB business. No allowance has been made for taxation on UK equity income because income is received net of tax, and there is no allowance for capital gains within the equity yields used. No allowance has been made for policyholder taxation in respect of Gross Roll-up and PHI business because no policyholder tax is charged on this business.

The corporation tax rate for shareholder transfers is set at 20% at 31 December 2016.

Asset volatility and correlations

The following volatility assumptions are required to value the with-profits participation business in the stochastic model:

- Equity volatility - Equity volatility is calibrated to equity implied volatility. The approach to calibration is to capture the volatility of the longest available option term.
- Bond volatility - The model allows for the extra volatility in corporate bonds compared to that in Government bonds as a result of credit risk.
- Property volatility - Property is modelled as an equity type asset using a constant volatility model.

Correlations between asset returns are targeted to best estimate assumptions. These targets have been derived by considering historical behaviour.

(b) Non-economic assumptions

Mortality/morbidity assumptions

The mortality and morbidity assumptions define the proportion of policyholders expected to die or experience a critical illness each year. Assumptions comprise:

- A percentage of base table mortality rates which define the probability of policyholders claiming over the one year period following the start of the model projection.
- Projection factors which determine the change in base rates in future years of the projection. For mortality, this is generally a reduction in future years.

For Accelerated Critical Illness (“ACI”) models, a single assumptions set is used for claims due to critical illness or death. For Stand Alone Critical Illness (“SACI”), the assumption is for claims due to critical illness only. For both ACI and SACI a future deterioration factor (rather than an improvement factor) is currently used.

The primary source of data for setting base assumptions is analysis of the Company’s own experience. Publicly available data from the Continuous Mortality Investigation (CMI) on mortality experience across the industry is also considered. The experience analysis compares actual claims over the investigation period with those predicted by the assumptions that applied for that period. The analysis is carried out for sub-divisions of the business and is supplemented by the inclusion of exposure figures to indicate the credibility of the results.

For term assurance products, where mortality risk is most material, mortality rates generally use a percentage of the industry standard Txx00 tables, while critical illness mortality and morbidity rates are based on a percentage of CIBT02 tables, Different tables apply to males and females and to smokers and non-smokers for products where the smoker status is known.

Annuitant Mortality

Recent mortality experience is regularly reviewed in order to set assumptions. The investigations are performed on both a lives and an amounts basis.

Annuitant mortality assumptions are required for both deferred annuity and in-payment annuity business and, like assurance mortality assumptions, comprise of base tables and future improvements.

Base tables describe the current levels of mortality. For most annuities in payment these are expressed as a percentage of PCMA2000 and PCFA2000 tables projected to 2015. The percentage of these tables applied is based on analyses of recent experience for each of the main cohorts of business originally sold through different companies. The percentages may vary by age. For the main pension annuity business in the Company, the underlying mortality assumption is 100% of PCMA2000/PCFA2000, with a base year of 2000.

Future improvements are based on CMI_2015 with a long-term improvement rate of 1.75% pa for males and 1.5% pa for females.

Persistency assumptions

Recent persistency experience is reviewed annually to assist with setting assumptions for the continuation of premiums being paid by policyholders and for the number of policies remaining in force. In addition consideration is given to factors that may cause future experience to differ from past experience such as changes to pensions regulations.

Lapses, transfers and premium cessation are analysed for each policy year duration and the assumptions are set consistently. Assumptions are set by product, and vary based on expected experience, which may differ by duration, age and size of policy.

For the main unit-linked pensions business, the long-term lapse rate assumptions for age under 65 are provided below:

- Individual 3% - 20%
- Group 5% - 7%

Lapse rate assumptions for this business combine transfers and early retirements. Individual business includes personal pensions, executive personal pensions and individual stakeholder. Group business includes group pensions and designer stakeholder.

Guaranteed annuity option take-up rates

The guaranteed annuity option (GAO) take-up rates define the proportion of policyholders expected to exercise the guaranteed annuity option at maturity. The assumed take-up rates are set based on current experience, and are assumed not to change in the light of future economic conditions, as the guarantees are significantly in the money already.

Expense assumptions

The best estimate liability for future expenses is a combination of the following elements:

- Administrative expenses;
- Investment management expenses;
- Claims management expenses / handling expenses;
- Acquisition expenses, but only to the extent that they are incurred on existing business after the valuation date; and
- Commissions which are expected to be incurred in the future.

These allowances cover all expenses arising within the Company and from the Company's two management services companies, Friends Life Management Services Limited ("FLMS") and Friends Life Services Limited ("FLS"). The full cost incurred by the service companies in managing the policies are charged to the Company so the best estimate expenses is based on an estimate of the underlying costs to the service companies.

Other assumptions

Income Protection

Income protection is modelled using claim inception and termination rates based on CMIR 12 tables respectively, with adjustments based on the historical experience of the portfolio for appropriate rating factors.

Events not in data ("ENID")

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

The Company considers 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 to determine the expected impact on future experience.

(c) Consistency of assumptions

The calculation of the best estimate liability requires a number of projection assumptions to be used. These assumptions are consistently reflected in both the valuation of technical provisions and the calculation of the SCR where necessary.

There are also a number of modelling dimensions across which consistency is ensured. These include using the same asset and liability data for both the SCR calculation and the technical provision valuation and ensuring that the calibrations and calculations used are consistent across the Internal Model. There are a number of specific areas of consistency:

- Insurance risk factor calibrations are often based on estimates of uncertainty, for example predicting future mortality rates for longevity risk. The same methodology is used to calibrate this uncertainty as is used to calculate the best estimate of liabilities – i.e. reflecting the base mortality levels and future mortality improvement factors.
- In order to value the reinsurance recoverables for technical provisions, assumptions are set for the rate of external reinsurer counterparty default. These assumptions are aligned with the counterparty default rates used in the credit portfolio model to calculate the probability of default for credit risk exposures.

D.2.2.3 Risk margin methodology (unaudited)

The risk margin is calculated for the Company using a Cost of Capital ("CoC") approach allowing for diversification between lines of business and is on a net-of-reinsurance basis. The CoC rate is the cost in excess of the risk-free rate, to a 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 CoC rate is used for all insurance companies and is prescribed by EIOPA at 6% per annum.

The risk margin is underpinned by the non-hedgeable SCR ("nhSCR").This takes into account the following risks:

- Life underwriting risk;
- Health underwriting 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 Company has no material non-hedgeable market risk.

The rate used to discount the projected nhSCR is the basic risk-free rate (including credit risk adjustment), with no allowance for volatility or matching adjustments.

Projection of the SCR

The Company adopts a mix of approaches to non-hedgeable risk projections. For some risks the projected run-off is modelled explicitly and no approximation is made. For others the Company makes use of risk carriers, where a suitable statistic is chosen which can be readily projected and used as a proxy.

The projected risks are then aggregated using a correlation matrix approach at each future time period to derive the nhSCR. Adjustments are made to reflect the differences between the correlation matrix approach and the Internal Model.

Diversification

The risk margin allows for diversification as follows:

- Diversification is taken into account at the Company level;

- No diversification is assumed between RFFs and the rest of the business;
- Diversification between a MA portfolio and the rest of the non-MA business within that fund is permitted.

Loss absorbing capacity

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

Allocation of the risk margin to Solvency II lines of business

The risk margin is allocated to lines of business using an approximate approach.

D.2.2.4 Simplified methods

Simplified methods are used only where it would be disproportionate to apply an accurate method and where the impact on the technical provisions is not material. Examples of where simplifications have been applied are:

- For some older products with GAOs, the most onerous GAO rate series is assumed where the actual series is not identified in the data.
- For some older products, subsidiary benefits are ignored where they are not likely to increase the liability. (e.g. rider benefits paid for by mortality charging, where the mortality charge exceeds the expected cost, even in a stress scenario)
- Manual adjustments to results calculated by the main valuation systems, often involve approximations. Manual adjustments are usually made where a product or product feature is difficult to model, or where there is a data deficiency.

Other simplifications have already been mentioned. e.g. grouping of data to value with-profits guarantees, valuing less material guarantees deterministically rather than stochastically.

D.2.3 Value of Technical Provisions by Line of Business

The following table sets out the technical provisions for the Company, split by Solvency II lines of business, as detailed in Annex I to the Level 2 Delegated Acts. Note that Solvency II line of business numbers 1 to 28 refer to Non-life insurance business and are not applicable to the Company. The best estimate liability and the risk margin are provided separately. These figures are gross of reinsurance and after the impact of transitional measures (nil at 31 December 2016).

#	Line of Business (YE2016 £m)	Technical provisions	Best Estimate	Risk Margin (unaudited)
29	Health insurance	730	691	40
30	Insurance with profit participation	13,680	13,445	235
31	Index-linked and unit-linked	32,173	31,912	261
32	Other life insurance	13,826	13,142	684
33	PPOs health	-	-	-
34	PPOs not health	-	-	-
D	Life insurance obligations	60,410	59,189	1,221
35	Health reinsurance	-	-	-
36	Life reinsurance	1,291	1,259	32
E	Life reinsurance obligations	1,291	1,259	32
	Total	61,701	60,448	1,253

The methodology and assumptions used to calculate the technical provisions are set out in section D.2.2 above.

D.2.4 Comparison of Solvency II Technical Provisions to UK GAAP Technical Provisions

Solvency II technical provisions are comprised of two components – the best estimate liability and the risk margin. By contrast, the UK GAAP provisions are a single calculation of liabilities, with appropriate margins for risk included within the assumptions and/or methodology. There is also a different approach to discounting.

There are specific differences in the methods used relating to the risk margin, non-unit reserves and with-profits business. The material differences between the assumptions used relate to discount rates, mortality rates, lapse rates and expense assumptions. These differences are outlined in this section.

The following table summarises the Company's gross technical provisions split by Solvency II line of business. The Solvency II technical provisions are shown gross of reinsurance and include the impact of any transitional measures (nil at 31 December 2016).

#	Insurance liability As at 31 December 2016	Best Estimate Liability (BEL) £m	Risk Margin (RM) (unaudited) £m	Solvency II technical provisions £m	UKGAAP technical provisions £m	Difference £m
29	Health insurance	691	40	730	925	195
30	Insurance with profit participation	13,445	235	13,680	16,086	2,406
31	Index-linked and unit-linked	31,912	261	32,173	33,020	846
32	Other life insurance	13,142	684	13,826	14,455	629
33	PPOs health	-	-	-	-	-
34	PPOs not health	-	-	-	-	-
D	Life insurance obligations	59,189	1,221	60,410	64,486	4,076
35	Health reinsurance	-	-	-	-	-
36	Life reinsurance	1,259	32	1,291	1,252	(39)
E	Life reinsurance obligations	1,259	32	1,291	1,252	(39)
	Total	60,448	1,253	61,701	65,738	4,037

Key areas of difference between the methods used to calculate Solvency II technical provisions and the methods used to calculate UK GAAP technical provisions are:

UK GAAP margins

Under UK GAAP explicit margins for uncertainty are added to various best estimate assumptions including discount rates, mortality rates, lapse rates, expense assumptions and reinsurance counterparty default rates. The key exception is participating business. Margins for uncertainty are not included in the Solvency II best estimate liability. This results in a decrease in Solvency II best estimate liabilities relative to UK GAAP technical provisions in respect of this adjustment.

Treatment of with-profits business

Under UK GAAP enhancements to asset shares that the Company expects to pay in order to treat policyholders fairly, are included in liabilities, together with consequent impacts on guarantee costs, irrespective of whether the enhancement is classified as 'permanent' under Solvency II. Neither UK GAAP nor Solvency II liabilities include the value of future shareholder transfers. This results in a decrease in Solvency II best estimate liabilities relative to UK GAAP technical provisions in respect of this adjustment.

These differences relate to line of business 30 (Insurance with profit participation).

Treatment of unit-linked business

Under UK GAAP, the technical provisions for unit linked business are based on current unit value, plus an allowance for non-unit cash flows, but only where this would increase the technical provisions. Under Solvency II, the technical provisions are lower than the unit value reflecting the profits expected to emerge in respect of future management charges expected to be earned from existing business. This results in a decrease in Solvency II best estimate liabilities relative to UK GAAP technical provisions in respect of this adjustment.

This is most relevant to line of business 31 (Index-linked and unit-linked).

Discount Rates

The Solvency II best estimate liability is valued using a risk-free rate curve with an allowance for credit risk and a MA or VA where applicable.

For non-participating life insurance contracts, UK GAAP technical provisions are valued using a flat 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.

Contract Boundaries

In addition to the unit liability, Solvency II technical provisions include profits or losses from future cash flows on existing business, with the exception of future contract boundary premiums. However the UK GAAP liability for these contracts is just the unit liability, with no allowance for any future cash flows. Hence contract boundaries are not a reason for the difference between UK GAAP and Solvency II liabilities.

Risk Margin (unaudited)

In addition to the best estimate liability, Solvency II technical provisions include a risk margin. This is analogous to the additional margins held under UK GAAP to cover uncertainty.

D.2.5 Level of uncertainty in value

Set out below are the main areas of uncertainty over the calculation of liabilities.

Life Insurance Technical Provisions

The best estimate liability corresponds 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 reflect estimates 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 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 asset share liabilities.
- Uncertainty in policyholder behaviour, e.g. for estimating lapse rates for different policy types and for different durations of a policy.

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 considering 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 cash flow projection models which are used to determine the best estimate liability are subject to a model base-lining exercise, which undertakes to reproduce the model's results from first principles, taking into account any information obtained from policy documents and operational procedures.

Guarantees on long-term savings products

As a normal part of operating activities, the Company has written contracts that provide guarantees and options for policyholders, including interest rate guarantees, in respect of certain long-term insurance and investment products. In providing these guarantees and options, the Company's capital position is sensitive to fluctuations in financial variables including interest rates, inflation, 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, should they currently be above that 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.

Regulatory compliance

The Company's insurance business is subject to dual local regulation, directly authorised by both the PRA (for prudential regulation) and the FCA (for 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 Company has 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 could have a negative impact on the Company's reported results.

D.3 Other liabilities

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 liabilities could be transferred or settled between knowledgeable willing parties in an arm's length transaction.

A description of the basis of valuation under Solvency II along with valuation differences between the Solvency II bases and the UK GAAP financial statements, by liability class, is provided below.

D.3.1 Provisions other than technical provisions

Under Solvency II and UK GAAP, provisions are valued using expected cash flows discounted, where the effect of the time value of money is material, using a pre-tax discount rate (or rates) that reflects current market assessments of the time value of money and those risks specific to the liability that have not been reflected in the best estimate cash flows.

D.3.2 Deferred tax liabilities

Deferred tax for Solvency II valuation purposes is determined in accordance with IAS 12 principles on 'temporary differences' between the economic value of assets or liabilities on the Solvency II balance sheet and their tax base. Deferred tax assets are recognised separately on the Solvency II balance sheet to the extent they cannot be offset against corresponding deferred tax liabilities. At 31 December 2016 the Company had no net deferred tax assets.

Deferred tax balances in the Solvency II balance sheet differ from those recognised in the UK GAAP balance sheet as a result of:

- Differences between the UK GAAP and Solvency II balance sheet valuation basis (as described in section D.1 and the remainder of section D.3) and consequential impact on recognition of deferred tax assets and liabilities, the largest impact being as a result of the revaluation of technical provisions; and
- UK GAAP assets and liabilities with an associated deferred tax balance treated as having no economic value under Solvency II.

The net Solvency II deferred tax liability arises mainly on unrealised gains on investments.

Unused tax losses and credits

The Company has unrecognised gross tax losses (excluding capital losses) and other temporary differences of £74 million to carry forward against future taxable income of the necessary category. The losses have no expiry date.

The Company has no unrecognised capital losses.

D.3.3 Derivatives

Under Solvency II, derivative liabilities are measured at fair value in accordance with UK GAAP, excluding any adjustments for changes in own credit standing of the Company since issuance. Fair values are obtained from quoted market prices, or if these are not available, by using valuation techniques such as discounted cash flow models or option pricing models. All derivatives are classified as assets when their fair values are positive and as liabilities when their fair values are negative.

D.3.4 Financial liabilities (including payables)

Financial liabilities (including payables) consist of the following headings listed in the Solvency II balance sheet QRT:

- Financial liabilities other than debts owed to credit institutions;
- Insurance and intermediaries payables;
- Payables (trade, not insurance);

Each of these categories is valued according to the methodology described below.

Financial liabilities expected to be paid within one year are valued on the Solvency II and UK GAAP balance sheets at the amounts expected to be paid.

Under Solvency II, non-current financial liabilities are measured at fair value, adjusted to eliminate movements in fair value due to changes in the own credit standing of the Company. This is achieved by determining the timing and monetary amount of expected outflow of cash or other resources and discounting the projected cash flows using a current risk free rate adjusted for the credit spread at initial recognition of the liability. Under UK GAAP, non-current financial liabilities are either carried at amortised cost or fair value under the fair value option.

D.3.5 Subordinated Liabilities

Under Solvency II, subordinated liabilities are valued on a fair value basis adjusted to eliminate the impact of changes in the own credit standing of the Company, with reference to the market value of similar group issued instruments which are externally listed. For UK GAAP they are valued at their original nominal value. These items are included within own funds for Solvency II and more detail on the instruments can be found in section E.

D.3.6 Other liabilities

Other liabilities expected to be paid within one year are valued on the Solvency II and UK GAAP balance sheets at the amounts expected to be paid.

The UK GAAP balance sheet includes £692 million within other liabilities in respect of the fund for future appropriations (FFA). In certain participating long-term insurance and investment business, the nature of the policy benefits is such that the division between shareholder reserves and policyholder liabilities is uncertain. Amounts whose allocation either to policyholders or shareholders has not been determined by the end of the year are held within liabilities as a FFA. If the aggregate carrying value of liabilities for a particular participating business fund is in excess of the aggregate carrying value of its assets, the difference is held as a negative FFA balance, subject to recoverability from margins in that fund's participating business.

Amounts related to deferred income have no value under Solvency II as they are not separable, and their economic value cannot be realised through a disposal.

D.3.7 Contingent liabilities

Under Solvency II reporting, material contingent liabilities are required to be recognised in the balance sheet. The Company has no material contingent liabilities under Solvency II.

D.4 Alternative methods of valuation

D.4.1 Company approach to valuation

The Company applies the Group Asset Valuation Business Standard to the valuation of its assets and liabilities. This sets out a control framework in respect of valuation, including assets and liabilities valued under alternative methods of valuation. This standard defines the following control objectives:

- **Primary valuation –** Parties responsible for primary valuations must ensure that appropriate valuation techniques are selected and justified.
- **Independent price verification ("IPV") –** A party independent of the primary valuation process must have sufficient controls in place to ensure valuations of all asset classes are reasonable. Controls should be commensurate with the materiality of the assets.
- **Valuation uncertainty –** The extent of uncertainty within valuations must be understood, quantified where possible and reported to senior management.
- **Reporting bases –** Where appropriate the valuation must be performed consistently across reporting bases. Where a consistent basis is not used, then a reconciliation of differences should be understood, documented and reported.
- **Client supplied prices –** Client supplied prices should be identified, and sufficient IPV controls exercised to provide assurance over the quality of the valuation.

D.4.2 Assets and liabilities to which an alternative valuation approach applies

For the financial year ending 2016, the following classes of assets and liabilities were subject to valuation under alternative valuation methods:

- Over the Counter derivatives;
- Private equity fund holdings;
- Investment Property;
- Commercial mortgages/Commercial real estate loans;
- Collateralised loan obligations; and
- Other illiquid debt securities.

D.4.3 Justification for use of an alternative valuation approach

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

- The individual nature of the asset means that there is no quoted price available (for example, investment property); or
- The asset is not actively traded in a market (such as holdings in unlisted private equity funds).

Alternative valuation methods include the use of estimates and assumptions that are not market observable. Where estimates and assumptions are used by the Company in valuing its assets and liabilities, they are based on a combination of independent third-party evidence and internally developed models, calibrated to market observable data where possible.

D.4.4 Assumptions underlying the valuation approach and assessment of valuation uncertainty

The Company performs an annual exercise to assess valuation uncertainty across its investment portfolio. The main assumptions underlying the valuation approach and assessment of valuation uncertainty for the categories identified in section D.4.1 are described below:

Over the Counter ("OTC") derivatives (£33 million)

OTC derivatives are mark to model assets and liabilities whose valuation may involve an element of subjectivity in both the selection of valuation methodology and parameterisation of model inputs. The extent of valuation uncertainty is assessed by comparing valuations against counterparty statements. The contracts are priced using mid-market inputs (such as swap curves and equity volatilities), as a practical expedient to using the prudent end of the bid-ask range for market inputs. The

valuation impact of moving from mid to bid is estimated within the wider valuation uncertainty analysis undertaken by the Company.

Valuation uncertainty has been assessed as moderate for this asset class.

Private equity fund holdings (£715 million)

Fair values for unlisted private equity funds are based on net asset value statements provided by fund administrators. The valuation of underlying equities is compliant with guidelines published by the British Venture Capital Association, the European Private Equity and Venture Capital association and other international bodies.

Valuation uncertainty has been assessed as significant for this asset class.

Investment property (£2,334 million)

Investment property is valued at least annually by external chartered surveyors in accordance with guidance issued by The Royal Institution of Chartered Surveyors, and using estimates during the intervening period. Valuations are performed by surveyors in accordance with methodologies described in the RICS "red book". A property gross value is calculated by dividing the expected rental cash flows by an appropriate rental yield. Future cash flows are calculated based on the surveyor's expectation of rental receipts during and after the current tenancy ends, typically based on an assessment of rents charged on comparable properties.

The extent of uncertainty systemic within the valuation of investment properties has been assessed based on ranges of expected rental yields provided by seven independent surveyors, by property type. Back testing analysis is also performed to understand the extent of valuation uncertainty for this asset class. Valuation uncertainty has been assessed as significant for this asset class.

Commercial mortgages/Commercial real estate loans (£100 million)

The mortgages are valued using a model that calculates a credit risk adjusted value for each mortgage. The credit risk adjusted contractual future cash flows are calculated by stochastically forecasting how the future loan repayments are impacted on by a large number of inputs. The key inputs feeding into the credit risk calculation are changes in property value, probability of tenant defaults, expected rental growth and property growth and likelihood of the borrower continuing to service the loan if the tenant defaults. The credit risk adjusted cash flows are then discounted at a risk free rate plus a liquidity premium calibrated to lending on new loans.

Valuation uncertainty arises from variation in the expected range of the key inputs feeding into the credit risk calculation and the liquidity premium. Valuation uncertainty has been assessed as moderate for this asset class.

Collateralised loan obligations (£293 million)

Collateralised lending with banks comprises loans to banking counterparties that have been collateralised with illiquid securities. Fair values are calculated using valuation models which incorporate a number of assumptions, including probability of counterparty default and expected loss in the event of counterparty default. Expected loss in the event of counterparty default is driven by assumptions describing the expected liquidation period of the collateral, the volatility of the collateral during this liquidation period and the extent to which we believe there is a correlation between the collateral value and counterparty default probability.

Valuation uncertainty arises from variation in the expected range of a number of the key assumptions described above. Valuation uncertainty has been assessed as moderate for this asset class.

Other Illiquid Debt Securities (£1,970 million)

Other privately placed notes are valued using discounted cash flow methodologies. Discount factors are constructed using risk free rates, credit and illiquidity spreads appropriate for the security in question. Valuation uncertainty has been assessed as moderate for this asset class

D.4.5 Adequacy of the valuation compared to experience

The Company operates IPV controls across all assets. For asset types where a secondary source is available (such as OTC 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 includes 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 asset classes where a secondary source is not available and there is no secondary trading activity (such as investment property and private equity), the Company relies on the implementation of accepted valuation standards by parties independent of the Group as described above (e.g. valuation of investment property in line with the methodologies described in the RICS “red book”). These are asset classes with considerable valuation uncertainty and 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 these back testing analyses are presented in the Company's valuation uncertainty assessments.

Section E
Capital Management

In this chapter

E.1 Own Funds

E.2 Solvency Capital Requirement (SCR) and Minimum Capital Requirement (MCR)

E.3 Use of duration-based equity risk sub-module in the calculation of the SCR

E.4 Difference between the Standard Formula and Internal Model

E.5 Non-compliance with the MCR and non-compliance with the SCR

Section E: Capital Management

This section of the report describes the internal operational structures and procedures underlying the Company's capital management process covering structure and quality of Own Funds; SCR and MCR; methodology for calculation of the SCR; differences between Internal Model and Standard Formula and any other material information.

E.1 Own Funds

E.1.1 Management of Own Funds

The primary objective of capital management is to optimise the balance between return and risk, whilst maintaining economic and regulatory capital in accordance with risk appetite. In managing Own Funds, the Company seeks to:

- Match the profile of its assets and liabilities, taking account of the risks inherent in the business;
- Maintain sufficient, but not excessive, financial strength to support new business growth and satisfy the requirements of its policyholders and its regulator, the PRA;
- Retain financial flexibility by maintaining strong liquidity; and
- Allocate capital efficiently, applying it to support value adding growth and repatriating excess capital to the Group through dividends.

In order to achieve these objectives, Own Funds are monitored via projections over a three year planning horizon. The Company also uses a number of sensitivity tests to understand the volatility of earnings, the volatility of its capital requirements, and to manage its capital more efficiently. Sensitivities to economic and operating experience are regularly produced on the Company's key financial performance metrics to inform decision making and planning processes, and as part of the framework for identifying and quantifying the risks to which the Company is exposed.

For long-term business in particular, sensitivities of market consistent performance indicators to changes in both economic and non-economic experience are continually used to manage the business and to inform the decision making process.

There have been no material changes to the objectives, policies or processes with respect to the management of Own Funds during the year.

E.1.2 Own Funds by tier

The table below sets out the Company's Own Funds at 31 December 2016:

31 December 2016	Total £m	Tier 1 unrestricted £m	Tier 1 restricted £m	Tier 2 £m	Tier 3 £m
Ordinary share capital	**702**	702	-	-	-
Surplus funds	**3,019**	3,019	-	-	-
Preference shares	**500**	-	316	184	-
Reconciliation reserve	**1,411**	1,411	-	-	-
Subordinated liabilities	**927**	-	355	572	-
Total basic own funds after adjustments	**6,559**	5,132	671	756	-
Restrictions	**-**	-	-	-	-
Total eligible own funds to meet the SCR	**6,559**	5,132	671	756	-
Restrictions to meet the MCR	**(544)**	-	-	(544)	-
Total eligible own funds to meet the MCR	**6,015**	5,132	671	212	-

The majority of the Company's Own Funds is unrestricted Tier 1 capital. This consists of ordinary share capital, surplus funds and the reconciliation reserve, which reconciles the total excess of assets over liabilities with identifiable Own Funds instruments (refer to section E.1.4). There are no restrictions on cancellation of the Company's dividends prior to payment, as set out in the Company's Articles of Association.

The Company has issued intra-group debt instruments to Friends Life Holdings plc ("FLH") which are classified as either subordinated liabilities or preference shares depending on the nature of the underlying instrument.

Instrument	SII classification	SII tier	Date of next call	£m
Step-up Tier One Insurance Capital Securities (STICS)	Preference shares	Tier 1 restricted and Tier 2	1 July 2020 and then five yearly	500
Upper Tier two subordinated debt	Subordinated liabilities	Tier 1 restricted	9 November 2018 and then annually	572
Lower Tier two subordinated debt	Subordinated liabilities	Tier 2	At maturity on 22 April 2022	355

The instruments do not meet the Solvency II requirements for recognition as Tier 1 restricted or Tier 2 Own Funds. However, as all of this debt qualified directly under Solvency I without benefit of a waiver, it is eligible to use the transitional arrangements under Solvency II. The debt is grandfathered either as Tier 1, if it is perpetual or as Tier 2 if it is dated. The transitional provisions apply for 10 years from the implementation of Solvency II or until the item is exchanged or converted.

Restricted Tier 1 Own Funds include paid-in preference share and their related share premium account, subordinated liabilities and Tier 1 Own Fund instruments grandfathered under transitional arrangements. These are distinguished from 'unrestricted' Tier 1 Own Funds as they are subject to further quantitative restrictions.

The tiering presentation of the preference shares reflect the relegation of capital due to the guarantees that the Company has made to the external debtholders of FLH. The adjustment is made to represent the reduction in quality of the Company's capital by the guarantees made and align it with the tiering of the external capital instruments. It relegates Own Funds from restricted Tier 1 to Tier 2.

At 31 December 2016, total basic Own Funds equal the total eligible Own Funds to meet the SCR, with no tiering limit restrictions. The total eligible Own Funds to meet the MCR are reduced by £544 million. This is because the amount of Tier 2 capital allowed to meet the MCR is restricted to 20% of the MCR.

E.1.3 Surplus funds

The Company has recognised £3,019 million of surplus funds which meet the criteria for classification as Tier 1 Own Funds. These are with-profits funds, where accumulated profits have not yet been made available for policyholders or beneficiaries. The surplus Own Funds in excess of notional SCR within a with-profits fund is restricted via an adjustment to the reconciliation reserve shown in section E1.4 below (Adjustment for restricted Own Fund items in respect of RFFs).

E.1.4 Reconciliation reserve

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

31 December 2016	**Total £m**
Solvency II excess of assets over liabilities	**6,390**
Other Basic Own Funds items	(4,222)
Adjustment for restricted Own Fund items in respect of RFFs (unaudited)	(757)
Reconciliation reserve	**1,411**

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

- Other Basic Own funds items that have been separately identified on the Own Funds QRT being; share capital, preference shares and surplus funds.
- The surplus Own Funds over notional SCR held within RFFs (refer to section E.1.6).

E.1.5 Differences between UK GAAP net assets 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 of the Company and the excess of assets over liabilities as calculated under Solvency II.

31 December 2016	Total £m
Total Company equity on a UK GAAP basis	**3,304**
Elimination of intangible assets, deferred acquisition costs and deferred income payable	(401)
Technical provision valuation differences (net of reinsurance recoverables)	4,290
Inclusion of risk margin (net of transitional deductions)	(1,253)
Elimination of FFA from liabilities	692
Net deferred tax adjustments	(30)
Revaluation of participations	(141)
Other adjustments onto Solvency II basis (including fair value adjustments)	(71)
Solvency II excess of assets over liabilities	**6,390**

The increase in net assets of £3,086 million results from solvency valuation differences.

The elimination of intangible assets, DAC and deferred income payable is described in sections D.1.1, D1.2 and D.3.5 respectively.

Technical provision valuation differences and the inclusion of the risk margin are described in section D.2.4.

The elimination of FFA from liabilities is described in section D.3.5.

Net deferred tax adjustments are described in section D.3.2.

Revaluation of participations is described in D.1.4.

Other adjustments onto Solvency II basis consists of the fair value adjustment on subordinated liabilities which are described in section D.3.4.

E.1.6 Restricted Own Funds items in respect of RFFs and MAPs (unaudited)

As at 31 December 2016, the total of excess of assets and liabilities within RFFs and MA portfolios amounted to £3.3 billion, of which £0.8 billion is restricted from the Company's Own Funds.

- Where a RFF exists, the Own Funds in excess of notional SCR of the RFF are restricted and deducted from the Company's Own Funds. This is reflected as an adjustment to the reconciliation reserve. The with-profits funds in the Company are treated as RFFs.
- The Company's MA portfolio does not have a surplus in excess of its SCR and, as a consequence, no restriction to Own Funds has been applied.

There are no other restrictions on Own Fund items.

E.2 Solvency capital requirement (SCR) and minimum capital requirement (MCR)

E.2.1 Solvency capital requirement (SCR) (unaudited)

The Company SCR at 31 December 2016 is £4,231 million.

The Company SCR includes the results of the following sub-funds:

- FLL NPF - Includes a matching adjustment portfolio, other non-profit and unit linked business and the assets and liabilities of the shareholder fund.
- FP WPF - As well as with-profits business, it includes a matching adjustment portfolio and unit linked portfolio (units reinsured to the FLL NPF and FLP NPF).
- FPLAL WPF - Primarily with-profits business
- FLC OWPF - Primarily with-profits business
- FLC NWPF - Primarily with-profits business
- FLAS WPF - Includes significant portfolios of non-profit and unit linked business (units reinsured to FLL NPF) as well as with-profits business.
- WL WPF - Includes a significant portfolio of unit linked business (units reinsured to FLL NPF) as well as with-profits business, and a small matching adjustment portfolio.

The contribution of the non-profit fund to the Company SCR is calculated using an Internal Model. The SCR of the six with-profits funds is calculated using the Standard Formula. No diversification is assumed between with-profit funds and the rest of the business, so the IM and SF components are aggregated by adding capital from the two components.

Friends Life and Pensions Limited ("FLP") is a UK regulated 100% owned insurance subsidiary of FLL. It includes the Secure Growth Fund ("SGF"), a small with-profits fund where the SCR is calculated by Standard Formula, but the rest is calculated using an Internal Model approach. Diversification is assumed between the SCR in respect of FLP NPF and the rest of FLL NPF.

The table below shows the results of the Company SCR as at 31 December 2016 split by sub-fund/ material subsidiaries:

SCR split by sub-fund	**£m**
FLL NPF (excluding FLP)	1,504
FLP NPF	896
Less IM diversification between FLL and FLP NPFs	(73)
Total Internal Model component	**2,327**
FLL FP WPF	593
FLL FPLAL WPF	30
FLL FLC OWPF	167
FLL FLC NWPF	569
FLL FLAS WPF	422
FLL WL WPF	21
FLP SGF	102
Total standard formula component	**1,904**
Company SCR	**4,231**

A more detailed breakdown of the Company SCR by risk module is shown below, including the split of each module between Internal Model and Standard Formula. Each risk module includes the impact of diversification within that module, and the diversification line includes diversification between risk modules. Other risks and adjustments include the loss absorbing capacity of technical provisions and the loss absorbing capacity of deferred tax.

SCR by risk module (£m)	Total	IM	SF
Market risk	2,805	1,560	1,245
Counterparty default risk	323	76	248
Life underwriting risk	2,463	1,493	969
Health underwriting risk	0	0	0
Non-life underwriting risk	0	0	0
Operational risk	534	452	82
Other risks and adjustments	(216)	(182)	(34)
Total undiversified modules	5,909	3,399	2,510
Diversification	(1,678)	(1,072)	(606)
SCR excluding capital add-on	4,231	2,327	1,904
Capital add-on already set	0	0	0
SCR	4,231	2,327	1,904

The nature of the Company's with-profits model is that the impact of some management actions which are only applied in stress scenarios, is estimated by calculating the maximum possible impact and then restricting it to allow for the reduced level of management action required that would actually apply based on the pre-management action balance sheet in the stress scenario. If the standard approach were applied as prescribed, and this approach were applied to each individual stress, then the loss absorbing capacity of technical provisions would be overstated. To allow for this, the impact of management actions is applied only once, in a 'combined stress' scenario based on the prescribed standard formula stresses. The loss absorbing capacity of technical provisions is still restricted to the value of future discretionary benefits. This approximation has been shown to be prudent.

The SCR of the Company reduced during 2016 after restating the starting value to allow for the use of a Partial Internal Model. The main reasons for this change were the implementation of improved hedging strategies and the transfer of the Friends Provident International Limited insurance subsidiary to Aviva Group Holdings Limited, partially offset by adverse economic changes, particularly interest rate movements.

E.2.2 Minimum capital requirement (MCR)

The MCR represents the minimum level below which the amount of financial resources of a firm should not fall.

The MCR is calculated using a linear formula that applies prescribed factors to capital-at-risk and the best estimate liability (net of reinsurance). The factors applied to the best estimate liability vary by type (with-profits guaranteed benefits, with-profits discretionary benefits, index/unit-linked and other). The MCR is subject to a floor, equal to 25% of the SCR, and a cap, equal to 45% of the SCR. There is an absolute floor of €3.7 million.

The MCR for the Company at 31 December 2016 is £1,058 million.

E.2.3 Standard Formula simplifications (unaudited)

Where the SCR is calculated using the Standard Formula, the Solvency II regulations specify 23 simplified calculations that may be used across all of the Standard Formula risk modules except operational risk. The use of these simplifications is disclosed in QRT S.25.02.21, where applicable. The Company has not used any of these simplified calculations to calculate the SCR at 31 December 2016.

E.2.4 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. The use of these USPs must be disclosed in QRT S.25.02.21, where applicable. The Company has not used any USPs to calculate the SCR at 31 December 2016.

E.2.5 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.

In addition, regulators have the option to specify that any capital add-ons or the SCR impact of any required USPs do not need to be disclosed separately to the total SCR, during a transitional period. The PRA has chosen to exercise this option with a two-year transitional period.

Firms have the right to apply a reduced Standard Formula equity stress to equities purchased on or before 1 January 2016, for a transitional period ending on 31 December 2022. The Company has applied the reduced stress to subsidiary undertakings in the with-profits funds.

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. The Company does not use the duration-based equity risk sub-module in the calculation of the SCR.

E.4 Differences between the Standard Formula and Internal Model (unaudited)

E.4.1 Use of the Internal Model in the Company's business

The Internal Model provides input to a number of key business processes and activities. Therefore the outputs from the Internal Model are used in day-to-day risk management and business decisions across the Company. "Use" does not imply that the Internal Model is used to directly run the business, but rather that the outputs of the Internal Model and the Internal Model itself are used to support decision-making, whilst 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. The outputs of the Internal Model are used internally and externally in risk based performance reporting and risk and financial strength reporting to senior management and the Board.

The granular metrics produced by the Internal Model are also used to set strategy and support a series of other activities, including:

- Strategy and business planning: allocating capital between business areas 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 products and their inherent risks;
- Transactions: assessing the appropriateness of potential 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;
- Asset and liability management: measuring the impact of market changes on assets and liabilities to drive investment and hedging strategy.

Further details on how the Internal Model is fully integrated into the Group's risk management system are given in section B.3.5.

E.4.2 Undertakings in scope of the Internal Model

The Group is a large multinational insurance organisation operating across a variety of business lines; this drives the risk profile and, by extension, the design and structure of the Internal Model. The Group uses a Partial Internal Model. The Company, as part of the Group, makes use of the Group Partial Internal Model.

The Group Partial Internal Model has been designed to allow each legal entity within the Group to run the business with a focus on risk. This means that the Internal Model has been designed to produce capital figures at a range of levels and granularities, from legal entity to fund level (and in some cases to a product or asset level), allowing for diversification between risk types at each of those levels. Producing and understanding the capital requirements at different levels of granularity is crucial to ensure that the model outputs can be effectively used in the day-to-day running of the business.

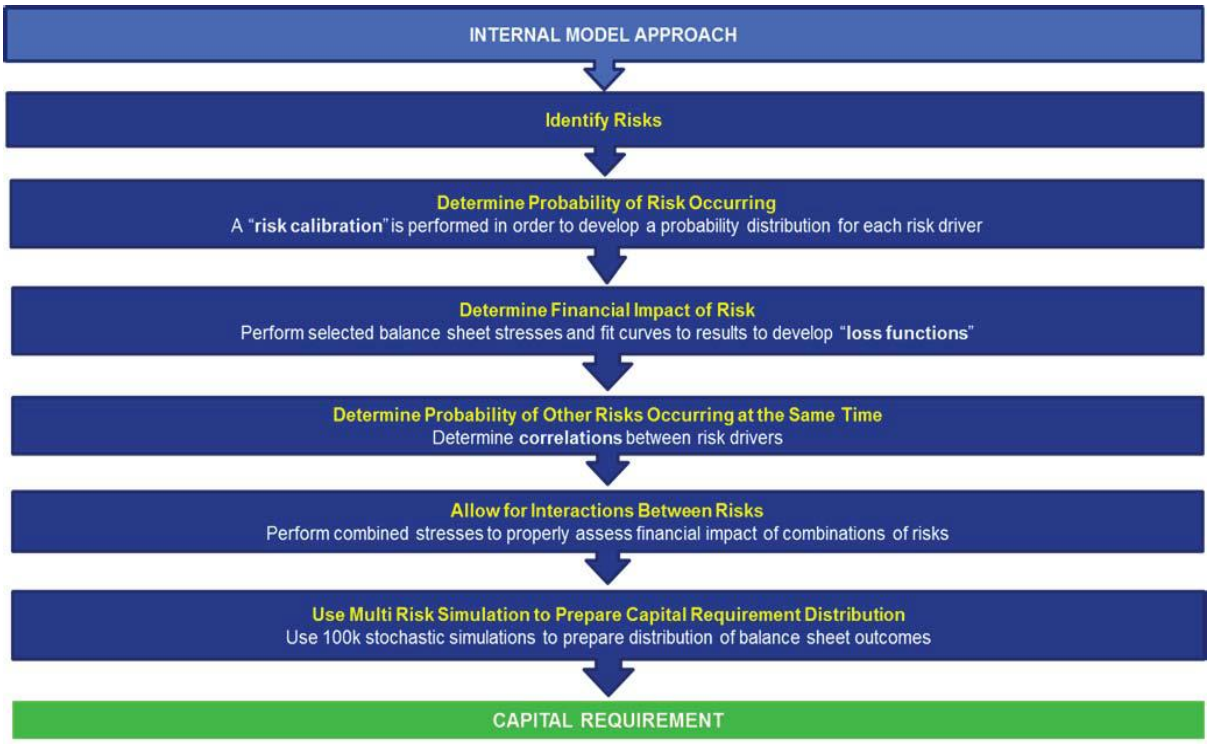
The funds and subsidiaries of the Company included in the Internal Model scope are listed in section E.2.1.

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.

An overview of the Company's approach is shown below.



Overview of the Company's modelling approach

The Company'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 model is 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 the Company.

For the majority of risk factors, standard statistical distributions fitted via the standard risk factor calibration process are used. However, for some risk types, such as credit risk or operational risk, distributions are derived from further modelling processes. This approach is appropriate given both the materiality of the risk types and the desire to ensure the risk's behaviour is accurately reflected.

A wide range of testing and review processes are used 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. Within the Company, these components are distinct blocks of business, rather than risks. 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 Directive 2009/138/EC is used.

E.4.3.2 Data used in the Internal Model

The key data used in the Company's Internal Model is listed below:

- Accounting data (UK GAAP) – this is used in the valuation of certain liabilities;
- Policy data – this includes claims as well as policies in force and past policies;
- Operational risk data – an external database of information with regards to industry operational risk losses is used. This is provided by the Operational Risk Insurance Consortium (ORIC);
- Financial market data – the 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. The data used is largely taken from the accounting process and, therefore, most data will be included under the heading 'accounting data'; and
- Other data – data that does not fall under the above five categories.

The Solvency II Data Governance Group 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 Integration of the Standard Formula into the Partial Internal Model

As described in section E.4.3.1 the Company has chosen to implement a Partial Internal Model using integration Technique 2 to combine results of the Internal Model and Standard Formula as described in Annex XVIII of the Delegated Act.

This technique requires an upper and lower bound to be specified for correlations between the entire Internal Model block and each of the Standard Formula risk modules. A correlation matrix is then constructed with correlations between Standard Formula and Internal Model risk modules within these bounds. The correlations are chosen so that the SCR aggregated using this correlation matrix is maximised.

All of the business using the standard formula approach is in with-profits funds. The integration approach does not allow for any diversification between these with-profits funds and the rest of the business.

E.4.4 Differences between Standard Formula and Internal Model methodologies and underlying assumptions

The main difference between the Standard Formula and Internal Model approach is that the methodology and assumptions used in the Internal Model are tailored to the Company's risk profile, whereas the Standard Formula uses a standardised approach.

The Standard Formula prescribes formulae to calculate the capital required driven by exposure to various risks; for the Internal Model we 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 we hold 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 also use a different treatment for loss absorbing capacity of technical provisions. Under the Internal Model net loss functions are used, whereas in the standard formula an adjustment is made to the gross SCR for the loss absorbing capacity of technical provisions. The calculation of the loss absorbing capacity of tax also differs between the two approaches as this is specified by the standard formula calculation.

Another key difference is in the modelling approach used to aggregate the results. For the Internal Model, the Company determines an aggregate distribution of losses by combining marginal risk distributions for each risk using a Gaussian Copula and applying loss functions. 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 the Company's approach compared to the Standard Formula is that fat tailed risks are captured (i.e. risks where the probability of extreme values is higher than using the normal distribution) and non-linear loss profiles. In addition, the Company is 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 the Company is exposed, whereas the Standard Formula only considers a subset of risks. These are detailed below.

Market risks module

- The Internal Model considers changes in market volatility, which are not explicitly modelled in the Standard Formula. Equity volatility risk is particularly important for modelling business with guarantees in the Company.
- The Internal Model includes credit risk on sovereign bonds, which is not currently modelled under Standard Formula. The Internal 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.
- The Internal Model explicitly models inflation risk which is not included in the Standard Formula.
- For equity risk, only exposure to asset price falls are reflected in the Standard Formula, whereas the Internal Model allows for the full distribution of equity returns which allows exposure to equity values rising or falling to be captured.

Counterparty default module

- The Standard Formula considers all counterparty default risk under one module, whereas the Internal Model allows for the type of the counterparty and the nature of the exposure.

Life Insurance module

- The Standard Formula assumes standard portfolios, whereas the Internal Model calibrations are tailored to the Company's specific portfolios.

Operational Risk

- The Internal Model models operational risks using a scenario based approach. The Standard Formula uses a formulaic approach.

A key feature of the Internal Model compared with the Standard Formula is that the Internal Model captures fat tailed risks and non-linear loss profiles. In addition the Internal Model calculates the diversification benefit more granularly and, in particular, captures important features such as geographical diversification.

The aggregation of results of subsidiary companies also differs between the Internal Model and Standard Formula. Under the Standard Formula, FLP is treated as a non-strategic participation of the Company which means that:

- The Own Funds are valued on a Standard Formula basis, but presented as a participation asset of the Company balance sheet, rather than split out on a line-by-line granular basis; and
- The SCR is derived using the transitional measure for standard equity risk under which a 22% stress applies initially (for certain equities) increasing linearly to the relevant full stress at 31 December 2022, with further allowance made for diversification with other Standard Formula risks.

E.5 Non-compliance with the MCR and non-compliance with the SCR (unaudited)

The Company did not fail to comply with the MCR or SCR (unaudited) at any time during 2016.

Section F

Other Information

In this Chapter

F.1 Public disclosure templates

F.2 Glossary

F.3 Additional information on related undertakings

F.4 Approvals and determinations

F.5 Directors' statement

F.6 Audit opinion

F.1 Public disclosure templates

The following pages contain the Company's public disclosure templates, as listed below:

- S.02.01.02 Balance Sheet
- S.05.01.02 Premiums, claims and expenses by line of business
- S.05.02.01 Premiums, claims and expenses by Country
- S.12.01.02 Life and health SLT technical provisions
- S.22.01.21 Impact of long term guarantees and transitional measures
- S.23.01.01 Own Funds
- S.25.02.21 Solvency Capital Requirement – For undertakings using the standard formula and partial internal model
- S.28.01.01 Minimum Capital Requirement – Only life or only non-life insurance or re-insurance activity

Annex I
S.02.01.02
Balance Sheet
Amounts in 000s

		Solvency II Value
		C0010
Assets		
Intangible assets	R0030	
Deferred tax assets	R0040	
Pension benefit surplus	R0050	
Property, plant & equipment held for own use	R0060	4,675
Investments (other than assets held for index-linked and unit-linked contracts)	R0070	35,153,504
Property (other than for own use)	R0080	1,016,176
Holdings in related undertakings, including participations	R0090	9,809,788
Equities	R0100	2,109,005
- Equities - Listed	R0110	2,084,628
- Equities - Unlisted	R0120	24,377
Bonds	R0130	21,021,252
- Government Bonds	R0140	8,862,427
- Corporate Bonds	R0150	11,932,707
- Structured Notes	R0160	0
- Collateralised securities	R0170	226,117
Collective Investments Undertakings	R0180	451,125
Derivatives	R0190	746,159
Deposits other than cash equivalents	R0200	
Other investments	R0210	
Assets held for index-linked and unit-linked contracts	R0220	26,467,043
Loans & mortgages	R0230	1,122,536
- Loans on policies	R0240	11,987
- Loans & mortgages to individuals	R0250	
- Other loans & mortgages	R0260	1,110,549
Reinsurance recoverables from:	R0270	7,078,077
- Reinsurance recoverables - Non-life and health similiar to non-life	R0280	
- Reinsurance recoverables - Non-life excluding health	R0290	
- Reinsurance recoverables - Health similar to non-life	R0300	
- Reinsurance recoverables - Life and health similar to life, excluding health and index-linked and unit-linked	R0310	367,012
- Reinsurance recoverables - Health similar to life	R0320	245,057
- Reinsurance recoverables - Life excluding health and index-linked and unit-linked	R0330	121,955
- Reinsurance recoverables - Life index-linked and unit-linked	R0340	6,711,065
Deposits to cedants	R0350	
Insurance & intermediaries receivables	R0360	62,150
Reinsurance receivables	R0370	67,849
Receivables (trade, not insurance)	R0380	170,872
Own Shares (held directly)	R0390	
Amounts due in respect of own fund items or initial fund called up but not yet paid in	R0400	
Cash and cash equivalents	R0410	1,095,792
Any other assets, not elsewhere shown	R0420	15,128
Total assets	R0500	71,237,625

Liabilities		
Technical provisions - Non-life	R0510	
- Technical provisions - Non-life (excluding health)	R0520	
- TP calculated as a whole - Non-life (excluding health)	R0530	
- Best Estimate - Non-life (excluding health)	R0540	
- Risk margin - Non-life (excluding health)	R0550	
- Technical provisions - Health (similar to non-life)	R0560	
- TP calculated as a whole - Health (similar to non-life)	R0570	
- Best Estimate - Health (similar to non-life)	R0580	
- Risk margin - Health (similar to non-life)	R0590	
Technical provisions - Life (excluding index-linked and unit linked)	R0600	28,653,574
- Technical provisions - Health (similar to life)	R0610	730,372
- TP calculated as a whole - Health (similar to life)	R0620	
- Best Estimate - Health (similar to life)	R0630	690,658
- Risk margin - Health (similar to life)	R0640	39,714
- Technical provisions - Life (excluding health and index-linked and unit-linked)	R0650	27,923,202
- 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	26,981,587
- Risk margin - Life (excl health, index-linked and unit-linked)	R0680	941,615
Technical provisions - Index-linked and unit-linked	R0690	33,047,247
- TP calculated as a whole - Index-linked and unit-linked	R0700	
- Best Estimate - Index-linked and unit-linked	R0710	32,775,973
- Risk margin - Index-linked and unit-linked	R0720	271,274
Contingent liabilities	R0740	
Provisions other than technical provisions	R0750	98,539
Pension benefit obligations	R0760	
Deposits from reinsurers	R0770	
Deferred tax liabilities	R0780	383,006
Derivatives	R0790	671,915
Debts owed to credit institutions	R0800	
Financial liabilities other than debts owed to credit institutions	R0810	226,746
Insurance & intermediaries payables	R0820	428,990
Reinsurance payables	R0830	32,359
Payables (trade, not insurance)	R0840	366,296
Subordinated liabilities	R0850	926,972
- Subordinated liabilities not in BOF	R0860	
- Subordinated liabilities in BOF	R0870	926,972
Any other liabilities, not elsewhere shown	R0880	12,419
Total liabilities	R0900	64,848,064

Excess of assets over liabilities	R1000	6,389,561

Annex I
S.05.01.02
Premiums, claims and expenses by line of business
Amounts in 000s

		Line of Business for: life insurance obligations						Life reinsurance obligations		
		Health Insurance (direct business)	Insurance with profit participation	Index-linked and unit-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	Health reinsurance (reinsurance accepted)	Life reinsurance	Total
		C0210	C0220	C0230	C0240	C0250	C0260	C0270	C0280	C0300
Premiums written										
Gross - Direct Business	R1410	227,363	149,203	273,156	695,287					1,345,009
Reinsurers' share	R1420	27,082	545	5,802	656,134					689,563
Net	R1500	200,282	148,658	267,354	39,152					655,446
Premiums earned										
Gross - Direct Business	R1510	227,363	149,203	273,156	695,287					1,345,009
Reinsurers' share	R1520	27,082	545	5,802	656,134					689,563
Net	R1600	200,282	148,658	267,354	39,152					655,446
Claims incurred										
Gross - Direct Business	R1610	149,925	1,651,123	1,346,352	1,230,174					4,377,574
Reinsurers' share	R1620	31,517	3,984	4,438	646,378					686,317
Net	R1700	118,408	1,647,139	1,341,914	583,796					3,691,257
Changes in other technical provisions										
Gross - Direct Business	R1710	-9,535	365,113	-22,475	632,893					965,995
Reinsurers' share	R1720	-13,959	123,955	14,392	428					124,817
Net	R1800	4,424	241,158	-36,867	632,464					841,178
Expenses incurred	R1900	23,863	45,897	326,356	44,181					440,298
Other expenses	R2500									316,554
Total expenses	R2600									756,851

Annex I

S.05.02.01

Premiums, claims and expenses by Country

Amounts in 000s

		Home Country	Top 5 countries (by amount of gross premius written) - life obligations					Total Top 5 and home country
		C0150	C0160	C0170	C0180	C0190	C0200	C0210
	R1400							
		C0220	C0230	C0240	C0250	C0260	C0270	C0280
Premiums written								
Gross	R1410	1,218,267						1,218,267
Reinsurers' share	R1420	685,824						685,824
Net	R1500	532,444						532,444
Premiums earned								
Gross	R1510	1,218,267						1,218,267
Reinsurers' share	R1520	685,824						685,824
Net	R1600	532,444						532,444
Claims incurred								
Gross	R1610	4,278,797						4,278,797
Reinsurers' share	R1620	664,808						664,808
Net	R1700	3,613,989						3,613,989
Changes in other technical provisions								
Gross	R1710	909,584						909,584
Reinsurers' share	R1720	117,528						117,528
Net	R1800	792,056						792,056
Expenses incurred	R1900	414,585						414,585
Other expenses	R2500							316,554
Total expenses	R2600							731,139

Annex I

S.12.01.02

Life and Health SLT Technical Provisions

Amounts in 000s

		Insurance with profit participation	Index-linked and unit-linked insurance		Other life insurance			Annuities stemming from non-life insurance contracts and relating to insurance obligations other than health insurance	Accepted Reinsurance	Total (Life other than health insurance, incl. Unit
				Contracts without options and guarantees	Contracts with options or guarantees		Contracts without options and guarantees	Contracts with options or guarantees			
		C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0090	C0100	C0150
Technical provisions calculated as a whole	R0010										
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default associated to TP as a whole	R0020										
Technical provisions calculated as a sum of BE and RM											
Best Estimate											
Gross Best Estimate	R0030	13,444,904		31,770,890	141,047		13,047,039	94,949		1,258,731	59,757,560
Total Recoverables from reinsurance and SPV after the adjustment for expected losses due to counterparty default	R0080	102,036		6,710,800	265		11,764	8,155			6,833,019
Best estimate minus recoverables from reinsurance and SPV - Total	R0090	13,342,868		25,060,090	140,782		13,035,275	86,794		1,258,731	52,924,541
Risk Margin	R0100	235,451	261,440			684,040				31,958	1,212,890
Amount of the transitional on Technical Provisions											
Technical Provisions calculated as a whole	R0110										
Best estimate	R0120										
Risk margin	R0130										
Technical provisions - Total	R0200	13,680,355	32,173,377			13,826,028				1,290,689	60,970,449

		Health Insurance (direct business)		Annuities stemming from non-life insurance contracts and relating to health insurance obligations	Health reinsurance (reinsurance accepted)	Total (Health similar to life insurance)
		Contracts without options and guarantees	Contracts with options or guarantees			
		C0160	C0170	C0180	C0190	C0200	C0210
Technical provisions calculated as a whole	R0010						
Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default associated to TP as a whole	R0020						
Technical provisions calculated as a sum of BE and RM							
Best Estimate							
Gross Best Estimate	R0030		690,651			7	690,658
Total Recoverables from reinsurance and SPV after the adjustment for expected losses due to counterparty default	R0080		245,057				245,057
Best estimate minus recoverables from reinsurance and SPV - Total	R0090		445,594			7	445,601
Risk Margin	R0100	39,714				0	39,714
Amount of the transitional on Technical Provisions							
Technical Provisions calculated as a whole	R0110						
Best estimate	R0120						
Risk margin	R0130						
Technical provisions - Total	R0200	730,365				7	730,372

Annex I

S.22.01.21

Impact of long term guarantees and transitional measures

Amounts in 000s

		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
Technical Provisions	R0010	61,700,822			292,417	1,416,903
Basic Own Funds	R0020	6,559,285			-98,285	-1,720,018
Eligible own funds to meet Solvency Capital Requirement	R0050	6,559,285			-98,285	-1,720,018
Solvency Capital Requirement	R0090	4,230,883			-69,267	1,444,203
Eligible own funds to meet Minimum Capital Requirement	R0100	6,015,240			-101,748	-1,647,807
Minimum Capital Requirement	R0110	1,057,721			-17,317	361,051

Annex I
S.23.01.01
Own Funds
Amounts in 000s

		Total	Tier 1 Unrestricted	Tier 1 Restricted	Tier 2	Tier 3
		C0010	C0020	C0030	C0040	C0050
Basic own funds before deduction for participations in other financial sector as foreseen in article 68 of Delegated Regulation 2015/35						
Ordinary share capital (gross of own shares)	R0010	702,000	702,000			
Share premium account related to ordinary share capital	R0030					
Total initial funds, members' contributions or the equivalent basic own - fund item for mutual and mutual type undertakings	R0040					
Subordinated mutual member accounts	R0050					
Surplus funds	R0070	3,018,876	3,018,876			
Preference shares	R0090	500,000		316,744	183,256	
Share premium account related to preference shares	R0110					
Reconciliation reserve	R0130	1,411,437	1,411,437			
Subordinated liabilities	R0140	926,972		354,639	572,333	
An amount equal to the value of net deferred tax assets	R0160					
Own fund from financial statements do not meet the criteria to be classified as Solvency II own funds	R0180					
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						
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					
Total basic own funds after deductions	R0290	6,559,285	5,132,313	671,383	755,589	
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					
Other ancillary own funds	R0390					
Total ancillary own funds	R0400					
Available and eligible own funds						
Total available own funds to meet the SCR	R0500	6,559,285	5,132,313	671,383	755,589	
Total available own funds to meet the MCR	R0510	6,559,285	5,132,313	671,383	755,589	
Total eligible own funds to meet the SCR	R0540	6,559,285	5,132,313	671,383	755,589	
Total eligible own funds to meet the MCR	R0550	6,015,240	5,132,313	671,383	211,544	
SCR	R0580	4,230,883				
MCR	R0600	1,057,721				
Ratio of Eligible own funds to SCR	R0620	1.5503				
Ratio of Eligible own funds to MCR	R0640	5.6870				

		C0060
Reconciliation Reserve		
Excess of assets over liabilities	R0700	6,389,561
Own shares (direct/indirect)	R0710	
Foreseeable dividends, distributions and charges	R0720	
Other basic own fund items	R0730	4,220,876
Adjustment for restricted own fund items in respect of matching adjustment portfolios and ring fenced funds	R0740	757,249
Reconciliation reserve	R0760	1,411,437
Expected profits		
Expected profits included in future premiums (EPIFP) - Life business	R0770	329,469
Expected profits included in future premiums (EPIFP) - Non-life business	R0780	
Total Expected profits included in future premiums (EPIFP)	R0790	329,469

Annex I

S.25.02.21

Solvency Capital Requirement - For undertakings using the standard formula and partial internal mod

Amounts in 000s

Unique number of component	Component Description	Calculation of the Solvency Capital Requirement	Amount modelled	USP	Simplifications
C0010	C0020	C0030	C0070	C0080	C0090
100000	Market Risk	2,805,260	1,560,101		
200000	Counterparty Risk	323,291	75,509		
300000	Life underwriting risk	2,462,553	1,493,185		
400000	Health underwriting risk				
500000	Non-life underwriting risk				
701000	Operational risk	533,823	452,163		
801000	Other risks				
802000	Loss-absorbing capacity of technical provisions	-20,200			
803000	Loss-absorbing capacity of deferred tax	-148,972	-134,692		
804000	Other adjustments	-47,017	-47,017		

Calculation of Solvency Capital Requirement		C0100
Total undiversified components	R0110	5,837,182
Diversification	R0060	-1,664,388
Capital requirement for business operated in accordance with Art. 4 of Directive 2003/41/EC	R0160	
Solvency Capital Requirement excluding capital add-on	R0200	4,230,883
Capital add-ons already set	R0210	
Solvency capital requirement	R0220	4,230,883
Other information on SCR		
Amount/Estimate of the overall loss-absorbing capacity of technical provisions	R0300	-1,449,530
Amount/Estimate of the overall loss-absorbing capacity of deferred taxes	R0310	-148,972
Capital requirement for duration-based equity risk sub-module	R0400	
Total amount of Notional Solvency Capital Requirements for remaining part	R0410	1,846,329
Total amount of Notional Solvency Capital Requirements for ring fenced funds (other than those related to business operated in accordance with Art. 4 of Directive 2003/41/EC (transitional))	R0420	1,538,467
Total amount of Notional Solvency Capital Requirements for matching adjustment portfolios	R0430	1,081,244
Diversification effects due to RFF nSCR aggregation for article 304	R0440	

Annex I

S.28.01.01

Minimum Capital Requirement - Only life or only non-life insurance or reinsurance activity

Amounts in 000s

Linear formula component for non-life insurance and reinsurance obligations

		C0010
MCRNL Result	R0010	

		Net (of reinsurance/SPV) best estimate and TP calculated as a whole	Net (of reinsurance) written premiums in the last 12 months
		C0020	C0030
Medical expense insurance and proportional reinsurance	R0020		
Income protection insurance and proportional reinsurance	R0030		
Workers' compensation insurance and proportional reinsurance	R0040		
Motor vehicle liability insurance and proportional reinsurance	R0050		
Other motor insurance and proportional reinsurance	R0060		
Marine, aviation and transport insurance and proportional reinsurance	R0070		
Fire and other damage to property insurance and proportional reinsurance	R0080		
General liability insurance and proportional reinsurance	R0090		
Credit and suretyship insurance and proportional reinsurance	R0100		
Legal expenses insurance and proportional reinsurance	R0110		
Assistance and proportional reinsurance	R0120		
Miscellaneous financial loss insurance and proportional reinsurance	R0130		
Non-proportional health reinsurance	R0140		
Non-proportional casualty reinsurance	R0150		
Non-proportional marine, aviation and transport reinsurance	R0160		
Non-proportional property reinsurance	R0170		

Linear formula component for life insurance and reinsurance obligations

		C0040
MCRL Result	R0200	512,294

		Net (of reinsurance/SPV) best estimate and TP calculated as a whole	Net (of reinsurance/SPV) total capital at risk
		C0050	C0060
Obligations with profit participation - Guaranteed benefits	R0210	7,422,050	
Obligations with profit participation - Future discretionary benefits	R0220	6,283,297	
Index-linked and unit-linked insurance obligations	R0230	26,064,908	
Other life (re)insurance and health (re)insurance obligations	R0240	13,599,886	
Total capital at risk for all life (re)insurance obligations	R0250		137,653,587

Overall MCR calculation

		C0070
Linear MCR	R0300	512,294
SCR	R0310	4,230,883
MCR cap	R0320	1,903,897
MCR floor	R0330	1,057,721
Combined MCR	R0340	1,057,721
Absolute floor of the MCR	R0350	3,332
		C0070
Minimum Capital Requirement	R0400	1,057,721

F.2 Glossary

Product definitions

Annuity	A type of policy that pays out regular amounts, either immediately and for the remainder of a person's lifetime, or deferred to commence from a future date. Immediate annuities may be purchased for an individual and his or her dependants or on a bulk purchase basis for groups of people. Deferred annuities are accumulation contracts, which may be used to provide benefits in retirement and may be funded by a policyholder by payment of a series of contributions or by a capital sum. Annuities may be guaranteed, unit-linked or index-linked.
Bonds and savings	These are accumulation products with single or regular premiums and unit-linked or guaranteed investment returns.
Collective investment schemes (SICAVs)	This is an open-ended investment fund, structured as a legally independent joint stock company, whose units are issued in the form of shares.
Critical illness cover	Pays out a lump sum if the insured person is diagnosed with a serious illness that is specified within the insurance policy
Group pension	A pension plan that covers a group of people, which is typically purchased by a company and offered to their employees.
Income drawdown	The policyholder can transfer money from any pension fund to an income drawdown plan from which they receive an income. The remainder of the pension fund continues to be invested, giving it the potential for growth.
Individual savings accounts (ISAs)	Tax-efficient plans within the UK for investing in stocks and shares, cash deposits or life insurance investment funds, subject to certain limits.
Investment sales	Comprise retail sales of mutual fund-type products such as unit trusts, individual savings accounts (ISAs) and open ended investment companies (OEICs).
Mortgage endowment	An insurance contract combining savings and protection elements which is designed to repay the principal of a loan or a mortgage.
Mortgage life insurance	A protection contract designed to pay off the outstanding amount of a mortgage or loan in the event of the death of the insured.
Open ended investment company (OEIC)	A collective investment fund structured as a limited company in which investors can buy and sell shares.
Pension	A means of providing income in retirement for an individual and possibly his/her dependants.
Personal pension	A pension plan tailored to the individual policyholder, which includes the options to stop, start or change their payments.
Protection	An insurance contract that protects the policyholder or his/her dependants against financial loss on death or ill-health.
Regular premium	A series of payments are made by the policyholder, typically monthly or annually for part of or all of the duration of the contract.
Single premium	A single lump sum is paid by the policyholder at the start of the contract.
Stakeholder pensions	Low cost and flexible pension plans governed by specific regulations.

Term assurance	A simple form of life insurance, offering cover over a fixed number of years during which a lump sum will be paid out if the life insured dies within the specified time period.
Unit trusts	A form of open ended collective investment constituted under a trust deed, in which investors can buy and sell units.
Whole life	A protection policy that remains in force for the insured's whole life with a lump sum paid out on death. Traditional whole life contracts have fixed premium payments that typically cannot be missed without lapsing the policy. Flexible whole life contracts allow the policyholder to vary the premium and/or amount of life cover, within certain limits.

General terms

99.5% percentile	An event that would be expected to occur once on every 200 years.
Alternative valuation methods	Valuation methods that are consistent with Article 75 of the SII Directive other than those which solely use the quoted market prices for the same or similar assets or liabilities.
Basis risk	The risk resulting from the situation in which the exposure covered by the risk-mitigation technique does not correspond to the risk exposure of the insurance or reinsurance undertaking.
Best estimate liabilities (BEL)	The expected present value of future cash flows for a company's current insurance obligations, calculated using best estimate assumptions, projected over the contract's run-off period, taking into account all up-to-date financial market and actuarial information.
Concentration risk	All risk exposures with a loss potential which is large enough to threaten the solvency or the financial position of insurance and reinsurance undertakings.
Contract boundaries	A contract boundary is the first point in time in the lifetime of an insurance policy at which the insurer has the ability to review the premiums charged at the individual policy level, without any contractual constraints. For policies in which such a point does not exist, the contract boundary is the same as the full term of the contract. Under Solvency II, if a contract boundary on an insurance contract is less than the full term of the contract the expected future premiums and obligations that relate to cover which may be provided after that date are not recognised in the measurement of the insurance liabilities.
Credit risk	The risk of loss or of adverse change in the financial situation, resulting from fluctuations in the credit standing of issuers of securities, counterparties and any debtors to which insurance and reinsurance undertakings are exposed, in the form of counterparty default risk, spread risk or market risk concentrations.
Deferred acquisition costs (DAC)	The costs directly attributable to the acquisition of new business for insurance and investment contracts may be deferred to the extent that they are expected to be recoverable out of future margins in revenue on these contracts.
Diversification benefit	The reduction in the risk exposure of insurance and reinsurance undertakings and groups related to the diversification of their business, resulting from the fact that the adverse outcome from another risk, where those risks are not fully correlated.
Expected profit included in future premium (EPIFP)	The expected present value of future cash flows which result from the inclusion in technical provisions of premiums relating to existing insurance and reinsurance contracts that are expected to be received in the future, but that may not be received for any reason, other than because the insured event has occurred, regardless of the legal or contractual rights of the policyholder to discontinue the policy.
Fair value	The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (i.e. an exit price).

Financial Conduct Authority (FCA)	The FCA is an independent public body and is independent of the Bank of England. It is responsible for the conduct business regulation of financial services firms (including those firms subject to prudential regulation by the PRA) and the prudential regulation of firms not regulated by the PRA. The FCA has three statutory objectives: securing an appropriate degree of protection for consumers, protecting and enhancing the integrity of the UK financial system and promoting effective competition in the interests of consumers.
Financial Reporting Standard (FRS) 101	A UK GAAP financial reporting standard which allows the Company to use the recognition and measurement bases of International Financial Reporting Standards (IFRS) in its individual entity financial statements, while being exempt from a number of disclosures required by full IFRS.
Inherited estate	The assets of the long-term with-profit funds less the realistic reserves for non-profit policies written within the with-profit funds, less asset shares aggregated across the with-profit policies and any additional amounts expected at the valuation date to be paid to in-force policyholders in the future in respect of smoothing costs and guarantees.
International financial reporting standards (IFRS)	These are international accounting regulations that all publicly listed companies in the European Union are required to use.
Life business	Businesses selling life and pensions contracts.
Liquidity premium	An addition to the risk-free rate used when projecting investment returns and discounting cash flows on certain types of contracts where the liabilities are illiquid and have cash flows that are predictable.
Liquidity risk	The risk that insurance and reinsurance undertakings are unable to realise investments and other assets in order to settle their financial obligations when they fall due.
Longevity risk	Risk associated with increasing life expectancy trends among policyholders and pensioners.
Long-term and savings business	Collective term for life insurance, pensions, savings, investments and related business.
Look through	The Company considers the risks, assets, liabilities of its subsidiary as if they were its own.
Market risk	The risk of loss or of adverse change in the financial situation resulting, directly or indirectly, from fluctuations in the level and in the volatility of market prices of assets, liabilities and financial instruments.
Matching adjustment	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 to assets that are intended to be held to maturity and have cash flows that are also relatively fixed.
Minimum capital requirement (MCR)	The Minimum Capital Requirement is the minimum amount of capital that an insurer needs to hold to cover tis risks under the Solvency II regulatory framework. If an insurer's capital falls below the MCR then authorisation will be withdrawn by the regulator unless a firm is able to meet the MCR within a short period of time.
Morbidity	Rate of disease or how likely someone will fall ill, varying by such parameters as age, gender and health, used in pricing and calculating liabilities for policyholders of life and annuity products.
Mortality	Rate of death, varying by such parameters as age, gender and health, used in pricing and calculating liabilities for policyholders of life and annuity products which contain mortality risks.
Net written premiums	Total gross written premiums for the given period, minus premiums paid over or 'ceded' to reinsurers.
Operating expenses	The day-to-day expenses involved in running the business including the staff costs. For the avoidance of doubt, operating expenses excludes commission, non-operating integration and restructuring costs, and amortisation and impairment of AVIF and intangible assets.

Operating profit	This is a non-GAAP financial performance measure. It is based on expected investment returns and stated before tax and before non-operating items including impairment of goodwill and amortisation and impairment of acquired value of in-force business, the profit or loss on disposal and remeasurement of subsidiaries and other items.
Operational risk	The risk of loss arising from inadequate or failed internal processes, personnel or systems, or from external events.
Outsourcing	An arrangement of any form between an insurance or reinsurance undertaking and a service provider, whether a supervised entity or not, by which that service provider performs a process, a service or an activity, whether directly or by sub-outsourcing, which would otherwise be performed by the insurance or reinsurance undertaking itself.
Own Funds	Under Solvency II, capital available to cover the SCR and MCR is referred to as own funds. This includes the excess of assets over liabilities in the Solvency II balance sheet (calculated on best estimate, market consistent assumptions and net of transitional measures on technical provisions), subordinated liabilities that qualify as capital under Solvency II, and off-balance sheet own funds approved by the regulator. Own funds eligible to cover the SCR and MCR also reflect any tiering restrictions.
Persistency	The rate at which policies are retained over time and therefore continue to contribute to premium income and funds under management.
Prudential Regulatory Authority (PRA)	The PRA is a part of the Bank of England and is responsible for the prudential regulation of deposit taking institutions, insurers and major investment firms. The PRA has three statutory objectives: • A general objective to promote the safety and soundness of the firms it regulates • An objective specific to insurance firms, to contribute to the securing of an appropriate degree of protection for those who are or may become insurance policyholders; and • A secondary objective to facilitate effective competition.
Purchased value of in force (PVIF)	The present value of future profits on a portfolio of long-term insurance and investment contracts, acquired either directly or through the purchase of, or investment in, a business.
Qualifying holding	A direct or indirect holding in an undertaking which represents 10% or more of the capital or of the voting rights or which makes it possible to exercise a significant influence over the management of that undertaking.
Required capital	The amount of assets, over and above the value placed on liabilities in respect of covered business, whose distribution to shareholders is restricted.
Risk-adjusted returns	Adjusting profits earned and investment returns by how much risk is involved in producing that return or profit.
Risk margin	The amount an insurance company would require, in excess of best estimate liabilities, in order to take over and meet the whole portfolio of insurance and reinsurance obligations. It reflects the cost of providing capital equal to the Solvency II capital requirement for non-hedgeable risks necessary to support the insurance obligations over their lifetime. Risk margin represents the value of deviation risk of the actual outcome compared with the best estimate, expressed in terms of a defined risk measure.
Solvency II	These are insurance regulations designed to harmonise EU insurance regulation. Primarily this concerns the amount of capital that European insurance companies must hold under a measure of capital and risk. Solvency II became effective from 1 January 2016.
Solvency II cover ratio	Own funds divided by the Solvency Capital Requirement.
Solvency II surplus	Own funds less the Solvency Capital Requirement.

Solvency Capital Requirement (SCR)	The Solvency Capital Requirement is the amount of capital the regulator requires an insurer to hold to meet the requirements under the Solvency II regulatory framework. Holding capital in excess of the SCR demonstrates an insurer has adequate financial resources in place to meet all its liabilities as and when they fall due and that there is sufficient capital to absorb significant losses. Firms may use their own internal model, the European Insurance and Occupational Pensions Authority (EIOPA) prescribed standard formula or a partial internal model to determine SCR.
Special Purpose Vehicle	Any undertaking, whether incorporated or not, other than an existing or insurance or reinsurance undertaking, which assumes risks from insurance or reinsurance undertakings and which fully funds its exposure to such risks through the proceeds of a debt issuance or any other financing mechanism where the repayment rights of the providers of such debt or financing mechanism are subordinated to the reinsurance obligations of such an undertaking.
Transitional measures on technical provisions (TMTP)	TMTP is an adjustment to Solvency II technical provisions to bring them into line with the pre-Solvency II equivalent as at 1 January 2016 when the regulatory basis changed, to smooth the introduction of the new regime. This will decrease linearly over the 16 years following Solvency II implementation but may be recalculated to allow for material changes to the risk profile of the relevant business, subject to agreement with the regulator. TMTP may also be recalculated every 24 months at the request of either the firm or the regulator.
Underwriting risk	The risk of loss or of adverse change in the value of insurance liabilities, due to inadequate pricing and provisioning assumptions.
UK Corporate Governance Code	The code sets out guidance in the form of principles and provisions on how companies should be directed and controlled to follow good governance practice.

F.3 Additional information on related undertakings

The following table is a complete list of the Company's related undertakings as at 31 December 2016 and includes information in relation to the % ownership, class of shares held and country of incorporation of each related undertaking.

Subsidiary or related undertaking	% Ownership	Share class	Country of incorporation
1-5 Lowndes Square Management Company Limited	4%	£0.25 A Ordinary shares	United Kingdom
	100%	£0.25 B Ordinary shares	United Kingdom
6-10 Lowndes Square Management Company Limited	4%	£0.25 A Ordinary shares	United Kingdom
20 Lowndes Square Management Company Limited	7%	£0.25 A Ordinary shares	United Kingdom
	100%	£0.25 B Ordinary shares	United Kingdom
41-42 Lowndes Square Management Company Limited	11%	£0.25 A Ordinary shares	United Kingdom
	100%	£0.25 B Ordinary shares	United Kingdom
43 Lowndes Square Management Company Limited	7%	£0.25 A Ordinary shares	United Kingdom
	100%	£0.25 B Ordinary shares	United Kingdom
44-49 Lowndes Square Management Company Limited	3%	£0.25 A Ordinary shares	United Kingdom
	100%	£0.25 B Ordinary shares	United Kingdom
	100%	£0.25 B Ordinary shares	United Kingdom
Aberdeen UK Tracker Fund	25%	Open Ended Investment Company	United Kingdom
Architas MA Active Growth Fund	21%	Open Ended Investment Company	United Kingdom
Architas Multi-Manager Protector Funds ICVC – Diversified Protector 70	51%	Open Ended Investment Company	United Kingdom
Architas Multi-Manager Protector Funds ICVC – Diversified Protector 80	35%	Open Ended Investment Company	United Kingdom
ASL Caravel Limited Partnership	100%	Limited Partner	United Kingdom
ASL Clipper Limited Partnership	100%	Limited Partner	United Kingdom
ASL Mainsail Limited Partnership	100%	Limited Partner	United Kingdom
ASL Schooner Limited Partnership	100%	Limited Partner	United Kingdom
ASL/SLAS Xebec Limited Partnership	100%	Limited Partner	United Kingdom
Atlas Park Management Company Limited	100%	Company limited by guarantee	United Kingdom
Aviva Investors Corporate Bond Fund	86%	Open Ended Investment Company	United Kingdom
Aviva Investors Emerging Markets Local Currency Bond Fund	28%	SICAV	Luxembourg
Aviva Investors Global Aggregate Currency Hedged Bond Fund	84%	SICAV	Luxembourg
Aviva Investors Global Convertible Absolute Return Fund	37%	SICAV	Luxembourg
Aviva Investors Multi-Strategy Target Income Fund	34%	Open Ended Investment Company	United Kingdom
Aviva Investors Sterling Liquidity Fund	38%	Open Ended Investment Company	United Kingdom
Aviva Investors Strategic Bond Fund	22%	Open Ended Investment Company	United Kingdom
Aviva Investors UK Equity MoM Fund	22%	Open Ended Investment Company	United Kingdom
AXA Ethical Distribution Fund	35%	Open Ended Investment Company	United Kingdom
AXA Property Trust Limited	28%	Closed End	Guernsey
AXA Rosenburg Global Investment Company ICVC – American Fund	46%	Open Ended Investment Company	United Kingdom
AXA Rosenburg Global Investment Company ICVC – Asia Pacific ex Japan Fund	46%	Open Ended Investment Company	United Kingdom
AXA Rosenburg Global Investment Company ICVC – Global Fund	46%	Open Ended Investment Company	United Kingdom
AXA Rosenburg Global Investment Company ICVC – Japan Fund	46%	Open Ended Investment Company	United Kingdom
AXA Sun Life Private Equity (No 1) Limited Partnership	100%	Limited Partner	United Kingdom
AXA UK Infrastructure Investment SAS	100%	€1.00 Subscriber shares	France
Axcess 10 Management Company Limited	100%	Company limited by guarantee	United Kingdom

Cumberland Place Management Company Limited	67%	£1.00 Ordinary shares	United Kingdom
Exeter Properties Inc.	95%	US$ Common Stock WPV shares	United States
	100%	US$ Series A Pref WPV Shares	United States
F&C Commercial Property Trust Fund	21%	Closed End	Guernsey
F&C European Capital Partners Limited Partnership	30%	Limited Partner	United Kingdom
F&C European Growth and Income Fund	41%	SICAV	Luxembourg
F&C Global Bond Fund	30%	Open Ended Investment Company	United Kingdom
F&C Institutional Investment Funds ICVC – Institutional UK Equity Fund	51%	Open Ended Investment Company	United Kingdom
F&C North American Fund	20%	Open Ended Investment Company	United Kingdom
F&C Pacific Growth Fund	30%	Open Ended Investment Company	United Kingdom
F&C Strategic Bond Fund	22%	Open Ended Investment Company	United Kingdom
FPB Holdings GmbH	100%	€1.00 Series A shares	Germany
	100%	€1.00 Series B shares	Germany
FPPE Fund Public Limited Company	100%	€1.00 Subscriber shares	Ireland
Friends AELRIS Limited	100%	£1.00 Stock shares	United Kingdom
Friends Life and Pensions Limited	100%	£1.00 Ordinary shares	United Kingdom
Friends Life Funds Asia Pacific Ex Japan Fund	22%	Mutual Fund	United Kingdom
Friends Life Funds Distribution Fund	100%	Mutual Fund	United Kingdom
Friends Life Funds Europe Equity Ex UK Fund	22%	Mutual Fund	United Kingdom
Friends Life Funds Global Equity Alpha Fund	100%	Mutual Fund	United Kingdom
Friends Life Funds Japan Equity Fund	26%	Mutual Fund	United Kingdom
Friends Life Funds Sterling Corporate Bond Fund	23%	Mutual Fund	United Kingdom
Friends Life Funds Sterling Gilt Fund	23%	Mutual Fund	United Kingdom
Friends Life Funds Stewardship UK Equity Income Fund	43%	Mutual Fund	United Kingdom
Friends Life Funds Strategic Global Equity Fund	100%	Mutual Fund	United Kingdom
Friends Life Funds UK Equity Fund	62%	Mutual Fund	United Kingdom
Friends Life Funds UK Equity Income Fund	100%	Mutual Fund	United Kingdom
Friends Life Marketing Limited	100%	£1.00 Ordinary shares	United Kingdom
Friends SL Nominees Limited	100%	£1.00 Ordinary shares	United Kingdom
Glasgow Airport Business Park Management Company Limited	100%	Limited by guarantee	United Kingdom
Gobafoss Partnership Nominee No 1 Ltd	100%	£1.00 Ordinary shares	United Kingdom
Haspa TrendKonzept Fund	20%	FCP	Luxembourg
Hengrove Park Bristol (Phase I) Management Company Limited	100%	£1.00 Ordinary shares	United Kingdom
Livingbridge IV Limited Partnership	32%	Limited Partner	United Kingdom
London & St Lawrence Investment Company plc	24%	Closed End	United Kingdom
Opus Park Management Limited	100%	Limited by guarantee	United Kingdom
Patriarch Classic B&W Global Freestyle Fund	23%	FCP	Luxembourg
SLAS Topsail Limited Partnership	100%	Limited Partner	United Kingdom
Stonebridge Cross Management Limited	100%	Limited by guarantee	United Kingdom
Suntrust Limited	100%	£1.00 Ordinary shares	United Kingdom
UKP Holdings Inc.	100%	US$1.00 Common Stock shares	United States
	100%	US$100.00 Non-Cumulative Preferred Stock	United States
Winslade Investments Inc.	100%	US$ Common Stock WPV shares	United States
	100%	US$ Series A Pref WPV	United States
	100%	US$ Series B Pref WPV	United States

F.4 Approvals and determinations

The following approvals, determinations and modifications apply for the Company at 31 December 2016:

F.4.1 Approvals

Approval		PRA / regulator reference
Matching adjustment in the calculation of technical provisions		2198300
Volatility adjustment in the calculation of technical provisions	FLL	2201130
Transitional measures on technical provisions[1]		3908473
Partial internal model in the calculation of the SCR	Inclusion of Friends Life non-profit business[2]	4239664

1 The transitional measure at 31 December 2016 for FLL was zero. PRA Supervisory Statement 6/16 permits the use of a transitional measure that is less than the maximum calculated amount. In accordance with this the transitional measure at 31 December 2016 for the subsidiary FLP is set to zero rather than the calculated amount of £186m (unaudited). Approval has been received from the PRA to reset the transitional measure to zero following approval of the Partial Internal Model, effective from 16 February 2017.

2. The major model change and extension written approval notice received from the PRA takes effect from 16 February 2017. Formal confirmation from the PRA dated 27 July 2016 and 23 March 2017 confirmed that this can be backdated to 31 December 2016.

In the Company, 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.

F.4.2 Modifications

There are no modifications. No permission has been sought for the following:

Non-disclosure of information in the SFCR.

F.5 Directors' statement

We acknowledge our responsibility for preparing the Solvency and Financial Condition Report of Friends Life Limited at 31 December 2016 in all material respects in accordance with the PRA Rules, 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 to 31 December 2016, the Company has complied in all material respects with the requirements of the PRA Rules and the Solvency II Regulations as applicable to the Company, 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 2016 to the date of the publication of the SFCR, the Company has continued so to comply and that it will continue so to comply for the remainder of the financial year to 31 December 2017.

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J M Windsor

Director

17 May 2017

F.6 Audit opinion

Report of the external independent auditors to the Directors of Friends Life Limited ('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 Solvency and Financial Condition Report

Opinion

Except as stated below, we have audited the following documents prepared by the Company as at 31 December 2016:

- The 'Valuation for solvency purposes' and 'Capital Management' sections of the Solvency and Financial Condition Report of the Company as at 31 December 2016, ('**the Narrative Disclosures subject to audit**'); and
- Company templates S.02.01.02, S.12.01.02, S.22.01.21, S.23.01.01 and S.28.01.01 ('**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 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 Solvency and Financial Condition Report set out above which are, or derive from the Solvency Capital Requirement, as identified in the Appendix to this report;
- The 'Executive summary', 'Business and performance', 'System of governance' and 'Risk profile' elements of the Solvency and Financial Condition Report;
- Company templates S05.01.02, S05.02.01 and S.25.02.21;
- 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 Solvency and Financial Condition Report ('**the Responsibility Statement**').

To the extent the information subject to audit in the relevant elements of the 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 Solvency and Financial Condition Report of the Company as at 31 December 2016 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 supervisory approvals. determinations.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK and Ireland) (ISAs (UK & I)), International Standard on Auditing (UK) 800 and International Standard on Auditing (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 Solvency and Financial Condition Report* section of our report.

Emphasis of Matter - Basis of Accounting

We draw attention to the 'Valuation for solvency purposes' and 'Capital Management' sections of the Solvency and Financial Condition Report, which describe the basis of accounting. The 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 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 Solvency and Financial Condition Report may not be suitable for another purpose. Our opinion is not modified in respect of this matter.

Responsibilities of Directors for the Solvency and Financial Condition Report

The Directors are responsible for the preparation of the 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 under the PRA Rules and Solvency II regulations on which they are based, as detailed in section F.4 of the 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 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 Solvency and Financial Condition Report

It is our responsibility to form an independent opinion, in accordance with applicable law, ISAs (UK & I) and ISAs (UK) 800 and 805 as to whether the information subject to audit in the relevant elements of the Solvency and Financial Condition Report 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. ISAs (UK & I) require us to comply with the Auditing Practices Board's Ethical Standard for Auditors.

An audit involves obtaining evidence about the amounts and disclosures in the relevant elements of the Solvency and Financial Condition Report sufficient to give reasonable assurance that the relevant elements of the Solvency and Financial Condition Report are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the Company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Directors; and the overall presentation of the relevant elements of the Solvency and Financial Condition Report. In addition, we read all the financial and non-financial information in the Solvency and Financial Condition Report to identify material inconsistencies with the audited relevant elements of the Solvency and Financial Condition Report. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

This report, including the opinion, has been prepared for the Directors of the Company to comply with their obligations under 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 save where expressly agreed by our prior consent in writing.

Other Matters

The Company has authority to calculate its 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

In accordance with Rule 4.1 (3) of the External Audit Part of the PRA Rulebook for Solvency II firms we are required to read the Other Information and consider whether it is materially inconsistent with the relevant elements of the Solvency and Financial Condition Report and our knowledge obtained in the audits of the Solvency and Financial Condition Report and 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.

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17 May 2017

- The maintenance and integrity of the Aviva plc website is the responsibility of the directors; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the Solvency and Financial Condition Report since it was initially presented on the website.
- Legislation in the United Kingdom governing the preparation and dissemination of Solvency and Financial Condition Reports may differ from legislation in other jurisdictions.

Appendix – relevant elements of the Solvency and Financial Condition Report that are not subject to audit

The relevant elements of the Solvency and Financial Condition Report that are not subject to audit comprise:

- The following elements of 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 template S.12.01.02
  - Row R0100: Technical provisions calculated as a sum of BE and RM - Risk margin
  - Rows R0110 to R0130 – Amount of transitional measure on technical provisions

- The following elements of template S.22.01.21
  - Column C0030 – Impact of transitional on technical provisions
  - Row R0010 – Technical provisions
  - Row R0090 – Solvency Capital Requirement

- The following elements of template S.23.01.01
  - Row R0580: SCR
  - Row R0740: Adjustment for restricted own fund items in respect of matching adjustment portfolios and ring fenced funds

- The following elements of Company template S.28.01.01
  - Row R0310: SCR

- Elements of the Narrative Disclosures subject to audit identified as ‘unaudited’.