



ARCH INSURANCE (EU) DAC
(FORMERLY ARCH MORTGAGE INSURANCE DAC)
2018 SOLVENCY AND FINANCIAL CONDITION REPORT

Arch Insurance (EU) dac
15th April 2019

SOLVENCY AND FINANCIAL CONDITION REPORT

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SUMMARY

Arch Insurance (EU) dac, formerly Arch Mortgage Insurance dac, (“Arch EU” or the “Company”) is an Irish regulated insurance entity authorized by the Central Bank of Ireland. The Company’s ultimate parent is Arch Capital Group Ltd. (“ACGL” and together with its subsidiaries, the “Group” or the “Arch Group”), whose common shares are listed and traded on the NASDAQ stock market in the U.S.

On 4th March 2019, the Company changed its name to Arch Insurance (EU) Designated Activity Company.

Business, Strategy & Performance

On 6th March 2019, the Company received authorisation from the Central Bank of Ireland (“CBI”) to expand its insurance licence, covering all classes of insurance business, except Class 18 ‘Assistance’. The application to the CBI was made in August 2018 as part of the Group’s Brexit strategy. During March 2019, the Company received permission from the CBI to underwrite insurance business in all EEA and EU Member States under the EU Freedom of Services Acts and to open branches in the UK, Italy and Denmark on a Freedom of Establishment basis.

As part of the Company’s Brexit strategy, in the future there will be extensive changes to the Company’s business and risk profile. The Company will expand its activities to write, in addition to the existing mortgage insurance, personal lines motor insurance and specialty property & casualty insurance lines. However, these changes to the Company’s business and risk profile will occur after the reporting period applicable to this Solvency and Financial Condition Report.

The Company has notified the UK Prudential Regulatory Authority (“PRA”) of its intention to apply for a Third Country Branch (if the UK exits the EU). The PRA has confirmed that the Company is permitted to benefit from the Temporary Permissions Regime. This enables the Company to continue to provide mortgage insurance on a Freedom of Services basis into the UK until the earlier of the PRA approval of the Third Country Branch or three years after the UK withdrawal from the EU.

The Company writes credit and suretyship insurance in respect of housing loans advanced by lenders in EU Member States. During 2018 the Company wrote gross premium of €9.6m. The premium written represents growth of 15% compared to the prior year gross written premium of €8.4m. During 2018 the Company reported a pre-tax loss of €0.5m. Prior year pre-tax loss was €13.1m. The lower pre-tax loss in 2018 relative to 2017 is mainly due to higher investment returns. Net investment return was €12.0m higher in 2018 compared to 2017, primarily due to an improvement in foreign exchange gains / (losses) on investments in 2018.

The Company sees heightened interest in its mortgage credit insurance products due to the Basel III banking reforms, which will increase the capital which lenders are required to hold in respect of their mortgage loans and hence make more attractive the Company’s mortgage credit insurance products that provide capital relief to lenders. During 2018, the Company completed a capital relief transaction on a €3 billion residential mortgage loan portfolio. The transaction is the first of its kind in the European mortgage market and represents a valuable new tool for financial institutions in managing their regulatory capital.

The Company purchases reinsurance on the business it writes to protect it against adverse performance and to efficiently manage capital. The Company cedes 90% of its net retained premium under a quota share agreement with a related Group entity, Arch Reinsurance Ltd. (“ARL”), a Bermuda domiciled company which is a wholly owned subsidiary of ACGL with \$11.1 billion (2017: \$10.5 billion) of capital, comprised of shareholders’ equity and debt as at 31 December 2018. More details about the Company’s business and performance can be found in Section A.

System of governance

The Company maintains an effective system of governance, which provides for sound and prudent management of its integrated operations. The Company has designed its system of governance to achieve the following:

- Maintain an adequately transparent organizational structure that has well-defined, clear, consistent and documented lines of responsibility across the integrated operations;
- Ensure staff have the skills, knowledge and expertise necessary to properly discharge their assigned responsibilities;
- Establish and maintain processes to achieve effective internal reporting and communication of information at all relevant levels within the integrated operations;
- Maintain information systems that produce sufficient, reliable, consistent, timely and relevant information concerning all business activities, the commitments assumed and the risks to which the integrated operations are exposed;
- Safeguard the security, integrity and confidentiality of information, taking into account the nature of the information in question; and
- Ensure that any outsourced responsibilities are delegated and managed appropriately, with ultimate responsibility residing with the Board of Directors (“Board”) of the Company.

The system of governance is based on the principle of proportionality, such that systems and controls are proportionate to the nature, scale and complexity of the integrated operations. Appropriate and proportionate systems, resources and procedures are in place for the Company’s operations. In this regard, the Board monitors key aspects of the business and is assisted where appropriate by the Risk, Underwriting and Audit Committees of the Board. It is not deemed appropriate or proportionate, given the scale of the business and the governance structure in place to appoint an Investment Committee, Nomination Committee or a Remuneration Committee. In addition, the Board reviews information that would otherwise be addressed by such committees at its meetings. The principles and requirements of the system of governance, particularly risk management, internal control, internal audit and outsourcing, are the responsibility of the Board. The Company’s Chief Risk Officer (“CRO”) monitors the Risk Management Framework for operating effectiveness and reports to the Board as appropriate. The Board has approved formal policies, which are a component of the Company’s Governance Structure. The system of governance is assessed via reviews by the Compliance Officer, together with the CRO and periodic evaluation by Internal Audit. All related findings and/or reports are presented to Audit Committee and the Board. Section B provides further details on the Company’s system of governance.

Risk Profile

The Company's risk appetite framework provides an expression of the level of risk it is willing to accept in pursuit of its strategic objectives. The risk appetite framework provides quantitative and qualitative statements which are used to define the general attitude within the organization towards the desired level of risk. It not only supports the Company's risk management framework; it also enables the Company to make informed business decisions. In general, the Company has an appetite for insurance (underwriting) risk and a tolerance for other forms of risk. The risk philosophy of the Company encompasses all major risks and focuses on attaining the following business objectives:

- Underwrite business that meets agreed targeted returns
- Underwrite only carefully selected business lines
- Manage underwriting volumes in line with the business cycle
- Limit the downside risk such that the Company maintains a sufficient solvency margin.

To meet these objectives and the Company's overall strategy, performance against risk appetites and risk tolerances & limits metrics, as articulated in the Company's Risk Appetite Statement, are monitored by the CRO and reported on to the Risk Committee on a quarterly basis with a defined escalation process for breaches in these key metrics. The Company's risk profile is detailed in Section C.

Valuation for Solvency II purposes

The Company prepares its financial statements in accordance with Generally Accepted Accounting Practice ("GAAP") in Ireland comprised of accounting standards issued by the Financial Reporting Council of the UK, including Financial Reporting Standard 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' and the Irish Companies Act 2014.

The Company's Solvency II balance sheet is prepared on an economic or fair value basis. The most significant differences between the Solvency II balance sheet and the balance sheet prepared on a GAAP basis arise from:

- the valuation of technical provisions and reinsurer's share of technical provisions;
- the valuation of insurance and intermediary balances receivable and reinsurance balances payable;
- the valuation of deferred acquisition costs / deferred ceding commissions; and
- the valuation of deferred tax asset / deferred tax liability.

Section D provides a reconciliation between the valuation of assets and liabilities under GAAP and under Solvency II along with further details on valuation for Solvency II purposes.

Capital Management

The Solvency Capital Requirement coverage ratio as at 31 December 2018 was 338% with Eligible Own Funds of €61.4 million and a Solvency Capital Requirement of €18.2 million. The Company derives its Solvency Capital Requirement from the Standard Formula approach. There were no material changes in Solvency Capital Requirement during the year. The Company has a strong capital base enabling it to meet its solvency requirements and to facilitate the level of activity anticipated throughout its business planning horizon and within the Company's Own Risk and Solvency Assessment. Section E provides details about the Company's Capital Management.

SECTION A – BUSINESS AND PERFORMANCE

A.1 Business

A.1.1 Name and Legal Form of the Undertaking

Arch EU is incorporated in Ireland as a designated activity company (“dac”). A dac is a corporate form for a private company limited by shares, which activities are limited by its objects clause, and its constitution comprises a memorandum and articles of association. The address of the registered office of the Company is:

Arch Insurance (EU) dac
Level 2, Block 3, The Oval
160 Shelbourne Road, Ballsbridge
Dublin 4, Ireland

This Solvency and Financial Condition Report (“SFCR”) covers the Company on a solo basis.

A.1.2 Insurance Supervisor and Group Supervisor

Insurance Supervisor
Central Bank of Ireland
PO Box 559
Dublin 1, Ireland

Group Supervisor
Bermuda Monetary Authority
BMA House
43 Victoria Street
Hamilton HM 12 Bermuda

A.1.3 External Auditor

PricewaterhouseCoopers
One Spencer Dock
North Wall Quay
Dublin 1, Ireland

A.1.4 Description of the ownership details including proportion of ownership interest

Arch Financial Holdings Europe II Limited, a private company limited by shares and incorporated in Ireland, owns 100% of the equity share capital of the Company.

A.1.5 Group Structure

The Company’s ultimate parent and ultimate controlling party is ACGL, a Bermuda public limited liability company. ACGL prepares group financial statements and is the largest group for which group financial statements are drawn up and of which the Company is a member. Copies of the ACGL group financial statements are available on ACGL’s website located at

www.archcapgroup.com or on the website of the U.S. Securities and Exchange Commission located at www.sec.gov.

An organization chart illustrating the Company's position in the Group is included as **Appendix 1**.

A.1.6 Material Lines of Business and Geographical areas where business is conducted

The following table sets forth summary information regarding gross premiums written, by line of business and geographical region for the year to 31 December 2018 and year to 31 December 2017;

	2018	2018	2017	2017
Gross Written Premiums	Amount	% of	Amount	% of
	€'000	Total	€'000	Total
Gross Premium	9,628		8,401	
Gross written premiums - line of business				
Credit and Surety	9,628	100%	8,401	100%
Gross written premiums - geographical region				
Northern Europe	4,249	44%	4,796	57%
Eastern Europe	2,845	30%	3,418	41%
Western Europe	2,170	22%	0	0%
Southern Europe	364	4%	187	2%
Total	9,628	100%	8,401	100%

A.1.7 Significant Business or Other Events

On 6th March 2019, the Company received authorisation from the Central Bank of Ireland ("CBI") to expand its insurance licence, covering all classes of insurance business, except Class 18 'Assistance'. The application to the CBI was made in August 2018 as part of the Group's Brexit strategy. During March 2019, the Company received permission from the CBI to underwrite insurance business in all EEA and EU Member States under the EU Freedom of Services Acts and to open branches in the UK, Italy and Denmark on a Freedom of Establishment basis.

As part of the Company's Brexit strategy, in the future there will be extensive changes to the Company's business and risk profile. The Company will expand its activities to write, in addition to the existing mortgage insurance, personal lines motor insurance and specialty property & casualty insurance lines. However, these changes to the Company's business and risk profile will occur after the reporting period applicable to this Solvency and Financial Condition Report.

The Company has notified the UK Prudential Regulatory Authority ("PRA") of its intention to apply for a Third Country Branch (if the UK exits the EU). The PRA has confirmed that the

Company is permitted to benefit from the Temporary Permissions Regime. This enables the Company to continue to provide mortgage insurance on a Freedom of Services basis into the UK until the earlier of the PRA approval of the Third Country Branch or three years after the UK withdrawal from the EU.

A.2 Underwriting Performance

Since the Company prepares its financial statements in accordance with Generally Accepted Accounting Practice (“GAAP”) in Ireland (accounting standards issued by the Financial Reporting Council of the UK, including Financial Reporting Standard 102 ‘The Financial Reporting Standard applicable in the UK and Republic of Ireland’ and Irish law), the underwriting performance information given in this section is on an Irish GAAP basis.

The following table summarizes the profit and loss account for the technical account for year ended 31 December 2018 and year ended 31 December 2017.

Profit and loss account for the technical account	2018 €'000	2017 €'000
Gross written premiums	9,628	8,401
Outward reinsurance premiums	(8,665)	(7,561)
Net written premiums	963	840
Change in the gross provision of unearned premiums	(5,061)	(6,828)
Change in the provision for unearned premiums - reinsurers' share	4,567	6,188
Change in the net provision for unearned premiums	(494)	(640)
Earned premiums, net of reinsurance	469	200
Net investment return allocated to technical account	323	886
Claims paid - gross amount	-	-
Claims paid - reinsurers' share	-	-
Net claims paid	-	-
Change in provision for claims - gross amount	(1,835)	(421)
Change in provision for claims - reinsurers' share	1,652	378
Change in net provision for claims	(184)	(42)
Claims incurred, net of reinsurance	(184)	(42)
Net operating expenses	(4,976)	(5,398)
Balance on technical account	(4,368)	(4,354)

The following table summarizes the profit and loss account for the non-technical account for year ended 31 December 2018 and year ended 31 December 2017.

Profit and loss account for the non-technical account	2018	2017
	€'000	€'000
Balance on technical account	(4,368)	(4,354)
Net investment return allocated to non-technical account	3,836	(8,755)
Loss on ordinary activities before taxation	(532)	(13,110)
Tax credit on loss on ordinary activities	41	408
Loss on ordinary activities after taxation	(491)	(12,702)

The Company writes credit and suretyship insurance in respect of housing loans advanced by lenders in EU Member States. During 2018 the Company wrote gross premium of €9.6m. The premium written represents growth of 15% compared to the prior year gross written premium of €8.4m. Premiums are earned on a basis that is consistent with the risks covered under the terms of the insurance contracts. The premiums written are earned over the exposure period which in respect of the bound insurance contracts may be up to ten years. Due to the relatively long earned premium pattern of the business and because the insured exposure was mainly written in recent years, the earned premium is lower than the written premium in both 2018 and 2017. The ratio of gross earned premium to gross written premium was 47% in 2018 and 19% in 2017.

The Company cedes 90% of its net retained premium under a quota share agreement with a related group entity, ARL.

The loss ratio (net claims incurred divided by net earned premium) was 39% in 2018 and was 21% in 2017.

Net operating expenses were €5.0m in 2018 and €5.4m in 2017. A fixed percentage ceding commission is paid by ARL to the Company in respect of the ceded premium under the quota share agreement. The ceding commission is earned using the earned premium pattern applicable to the business.

During 2018 the Company reported a pre-tax loss of €0.5m. Prior year pre-tax loss was €13.1m. The lower pre-tax loss in 2018 relative to 2017 is mainly due to higher investment returns. Net investment return was €12.0m higher in 2018 compared to 2017, primarily due to an improvement in foreign exchange gains / (losses) on investments in 2018. Further information on the Company's investment performance is provided in Section A.3 below.

The Company sees heightened interest in its mortgage credit insurance products due to the Basel III banking reforms, which will increase the capital which lenders are required to hold in respect of their mortgage loans and hence make more attractive the Company's mortgage credit insurance products that provide capital relief to lenders. During 2018, the Company completed a capital relief transaction on a €3 billion residential mortgage loan portfolio. The transaction is the

first of its kind in the European mortgage market and represents a valuable new tool for financial institutions in managing their regulatory capital.

A.3 Investment Performance

The Company invests in fixed maturity securities, asset backed securities and short term investments such as money market funds and deposits with banks. The Company does not invest in equity holdings. The following table summarizes the invested assets of the Company at year ended 31 December 2018 and at year ended 31 December 2017.

Invested Assets	2018 Amount €'000	2018 % of Total	2017 Amount €'000	2017 % of Total
Bonds				
Government Bonds	22,016	30%	11,406	17%
Corporate Bonds	37,778	52%	40,800	59%
Asset Backed Securities	11,723	16%	14,153	21%
Subtotal	71,517	98%	66,358	97%
Short term investments				
Money Market Funds	272	0%	1,143	2%
Deposits at Banks	1,145	2%	1,212	2%
Subtotal	1,417	2%	2,355	3%
Total	72,934	100%	68,713	100%

(Note above amounts include accrued interest)

All of the investment return and investment expenses and charges relates to the Company's bond and short term investment portfolio. The following table summarizes the investment performance of the Company for year ended 31 December 2018 and year ended 31 December 2017.

Investment Return	2018	2017
	€'000	€'000
Investment income		
Interest income	1,677	1,448
Investment return		
Foreign exchange gains / (losses) on investments	4,306	(9,126)
Unrealised gains / (losses) on investments	(469)	371
Realised gains / (losses) on investments	(1,223)	(426)
Total investment income and investment return	4,291	(7,733)
Investment expenses and charges	(132)	(137)
Net investment return	4,159	(7,870)

During 2018 the Company had net investment return of €4.2m. Prior year net investment return was (€7.9m). Hence, net investment return was €12.0m higher in 2018 than 2017 primarily due to an improvement in foreign exchange gains / (losses) on investments in 2018.

During 2018 the Company had foreign exchange gains / (losses) on investments of €4.3m. Prior year foreign exchange gains / (losses) was (€9.1m). Hence, foreign exchange gains / (losses) on investments was €13.4m higher in 2018 than 2017.

ACGL, the Company's ultimate parent, is a USD reporting company. The Company's invested assets are predominately USD denominated assets. This minimizes the volatility in financial reporting at the ultimate parent; however it increases the volatility in investment return at the Company. The Company performs stress and scenario tests on currency risk. Further information on the Company's stress and scenario tests on currency risk is provided in Section C.2.4 below.

There were no gains or losses recognized directly in equity.

A.4 Performance of other activities

Not applicable

A.5 Any other information

No other material information to report as of 31 December 2018.

SECTION B – SYSTEM OF GOVERNANCE

B.1 General information on the system of governance

B.1.1 Overview

The Company is classified as Low Risk under the Central Bank of Ireland’s PRISM rating framework and is subject to the CBI’s Corporate Governance Requirements for Insurance Undertakings 2015 (the “Code”).

The Company’s Board of Directors (“Board”) is responsible for overseeing, controlling and directing the activities of the Company. The Board retains primary responsibility for corporate governance within the Company at all times. Senior Management also plays an important role in ensuring effective governance.

The terms of reference of the Board require the Board be made up of at least five directors, the majority of whom must be non-executive directors or independent directors. At least two members of the Board must be independent non-executive directors.

The Board of Directors as at 31 December 2018 was as follows:

- | | |
|--------------------------|---|
| ▪ Anthony Asquith | (Chairman and independent non-executive director) |
| ▪ Michael Bennett | (CEO and executive director) |
| ▪ Michael Constantinides | (Independent non-executive director) |
| ▪ Stephen Curley | (Independent non-executive director) |
| ▪ Seamus Fearon | (Group non-executive director) |
| ▪ H. Beau Franklin | (Group non-executive director) |
| ▪ Mark Nolan | (Group non-executive director) |
| ▪ Andrew Rippert | (Group non-executive director) |

The Company Secretary is Mark Nolan.

The presence of independent non-executive directors ensures that there is an appropriate element of independent challenge and oversight. The presence of ACGL executive management on the Board ensures that the Company’s strategic direction remains aligned with the wider Group and ensures there is continuous feedback between, and interaction with, the Company and its parent. This structure enables the Group to retain an appropriate oversight of the Company’s operations and to ensure that the business is aligned with the Group’s long term goals.

The Board is responsible for overseeing the business of the Company and supervising management. The Board sets the standards of conduct of the Company, provides direction and oversight, and promotes a culture of integrity. While the Board delegates certain function to Sub-Committees, this does not absolve the Directors of their responsibility for the Company.

The Board operates under agreed terms of reference and has the following key responsibilities:

- To comply with any obligations for the Board prescribed by the Code, the Companies Act 2014 and all other rules, regulation, guidelines and laws applicable;
- The effective, prudent and ethical oversight of the Company;
- Setting the business strategy for the Company; and
- Ensuring that the Company complies with its constitution as well as relevant legal, regulatory, and governance requirements.

The Board reserves the following matters specifically to the Board unless, where permitted by applicable Irish law and regulatory requirements, such matters are expressly delegated in writing to management, the Audit Committee, the Risk Committee, the Underwriting Committee, a management committee of the Company, or otherwise. These matters are also subject, where appropriate, to the direction/decision of the shareholder.

- All matters prescribed as being specifically reserved to the Board by the Company's Memorandum and Articles of Association and applicable law and regulatory requirements;
- Appointment of members of the Board, subject to regulatory approval;
- Approval of minutes of meetings of the Board and acknowledgement of the content of any minutes of any Committee of the Board or management/operational committee;
- Approval or ratification of any recommendation from or action taken by Executive Management or any Committee of the Board, to the extent that any such recommendation or action requires approval or ratification;
- Recommendation and approval of distributions or dividends to the shareholders;
- Review of financial reporting and controls including final approval of the full year financial Statements and Accounts (after review and recommendation of the Audit Committee);
- Final approval of the reserves for financial accounting and solvency and considering the Actuarial Function Report;
- Approval of reports and reliability of regulatory submissions relating to regulatory capital requirements including but not limited to Solvency II capital requirements.
- Appointment of Auditors;
- Approve and monitor the Investment Strategy and approve the Investment Risk Policy;
- Approval of banking arrangements including:
 - Opening and closing of accounts at any bank, custodian or intermediary,
 - Lines of credit and arrangements to grant a security interest, and
 - Facilities for letters of credit;
- Approval of any changes in the structure of the Board;
- Approval of the Business Plan, including but not limited to corporate strategy, goals and structure;
- Establishment, appointment to and/or dissolution of, as the case may be, Committees of the Board and Management/Operational Committees, including prescribing and approving charters and/or terms of reference for such Committees and appointment and removal of members of Control Functions;
- Ensuring maintenance of a sound system of risk management and internal control and using its product, including:

- Adopting a structured framework for proactively managing material risk in light of vulnerabilities to the business model, consideration of strategy and factors of change,
- Determining the nature and extent of significant risks the Company is willing to take in achieving its strategic objectives, by approval of Risk Appetites in accordance with the Risk Policies recommended and promoted by the Risk Committee,
- Employing risk / reward calculation in key decision making,
- Considering material issues affecting the corporate risk profile in light of monitoring of identified drivers of risk according to and Key Risk Indicators recommended by the Risk Committee in relation to key risks as well as emerging risk,
- Final approval of the ORSA Report for submission to regulators, and
- Assurance and providing confirmation of compliance (Solvency II);
- Self-assessment of the Board, including in relation to composition, performance, conflicts of interest and any other matter specified in the Code. In relation to performance, the Board shall document the fact and results of its review;
- Waiver of any actual or apparent conflict of interest, if legally appropriate, involving the Company;
- Final approval of litigation or arbitration activities, including compromises and settlements of disputed litigation (other than ordinary business course insurance or reinsurance claims, litigation and arbitration);
- Approval of the removal from office of any head of a Control Function as defined in the Code;
- Dealings with (including disposal or acquisition of, or change of use of) any material asset of the Company;
- Approval of any appointments to Executive Management;
- Assess performance of the Board, and monitor the Board Committees;
- Approval of matters outside of Company Policies (e.g., limits, products, investments);
- Approval of material agreements; and
- Any other matters not delegated to Executive Management or otherwise delegated by the Board.

The duties of the Audit Committee, a Sub-Committee of the Board, are:

- to liaise with the external and internal auditors particularly in relation to their audit findings;
- to oversee the relationship with the external auditors;
- to review the integrity of the Company's financial statements and to ensure that they give a "true and fair view" of the financial status of the Company;
- to review any financial announcements and reports and to recommend to the Board whether to approve the Company's annual accounts;
- to assess auditor independence and the effectiveness of the audit process;
- to review and examine management's processes for ensuring the appropriateness and effectiveness of firm systems and controls;
- to review all reports on the Company from the auditors and management's responsiveness;

- to review and assess the annual audit plan including adequacy of resources and ensure that it is consistent with the scope of the audit engagement;
- to check quarterly the developments under the Annual Compliance Monitoring Plan (for avoidance of doubt the other Compliance activities, such as training, reporting, advising and policies are overseen by the Risk Committee as part of the Annual Compliance Plan) and report to the Risk Committee;
- to ensure the Compliance function has adequate resources and independence;
- to review and challenge, where necessary,
 - the consistency of, and any changes to, accounting policies,
 - the methods used to account for significant or unusual transactions where different approaches are possible, and
 - whether the Company has followed appropriate accounting standards and made appropriate estimates and judgements, taking into account the views of the external auditor;
- to review and approve on behalf of the Board significant regulatory filings and Pillar 3 disclosures; and
- to consider the Company's arrangements for its employees and stakeholders to raise concerns (including "Whistleblowing") regarding possible wrongdoing in financial reporting and other legal and regulatory matters.

The duties of the Risk Committee, a Sub-Committee of the Board, are:

- to liaise at least quarterly with the CRO to discuss the quarterly risk report and other matters under these Terms of Reference;
- to oversee the risk management function and to check quarterly the developments under the Annual Risk Plan;
- to review updated or new Risk Policies and make a recommendation to the Board;
- to review the Annual Plan for the Risk Management Function including a review of adequacy of resources;
- to review at least annually the Risk Management Framework and advise the Board accordingly;
- to ensure that the risk appetite is clearly articulated and reflected within the Risk Appetite Statement and that the Risk Appetite Statement is reviewed at least annually;
- to review at least annually the Risk Register and advise the Board accordingly;
- to review quarterly the Risk Matrix and advise the Board on the current risk exposures;
- to keep under review the Company's overall risk assessment processes ensuring both qualitative and quantitative metrics are used;
- to review the Company's capability to identify and manage new risk types; to advise the Board, before a decision is taken to proceed with a proposed strategic transaction, including acquisitions or disposals, on risk aspects of such transaction(s) and any implications for the risk appetite and tolerance of the Company;
- to review reports on any material breaches of risk limits and the adequacy of proposed action;

- to ensure the Risk Management Function has appropriate access to information to enable it to perform its function effectively;
- to ensure the Risk Management Function has adequate independence and unfettered access to the Board and Chairman of the Risk Committee;
- to consider other risk management topics, as defined by the Board;
- to monitor the effectiveness and adequacy of the Company's risk management processes;
- to advise the Board on the effectiveness of strategies and policies with respect to maintaining, on an on-going basis, amounts, types and distribution of both internal capital and own funds adequate to cover the risks of the institution.
- to review reports on compliance risk assessments, regulatory themes, developments and implementation, monitoring and reviews in accordance with the Compliance Plan and any material compliance risk events and engagement with supervisors.
- to review, challenge and advise on the inputs to and outputs from the (at least) annual Own Risk and Solvency Assessment ("ORSA") process and report;
- to oversee the Compliance management function in relation to its policies, advising, reporting and training activities and to check quarterly the developments under the Annual Compliance Plan (for avoidance of doubt the monitoring activities and the Compliance Monitoring Plan are overseen by the Audit Committee);
- to review updated or new Compliance and Governance Policies and make a recommendation to the Board;
- to monitor and review emerging risk; and
- to advise the Board on the effectiveness of risk mitigation and reinsurance program.

The duties of the Underwriting Committee, a Sub-Committee of the Board, are:

- to review and make recommendations on the pursuit of business opportunities in each country and market segment in relation to their adherence to and consistency with the Company's stated goals and objectives and within its risk profile and planned portfolio composition;
- to review and make recommendations regarding portfolio performance reports;
- to review reports on existing client relationships;
- to provide the Company with the Underwriting guidelines, which will be reviewed periodically, at least annually, and amended as necessary;
- to review and make recommendations regarding the Company's price/rate levels and pricing technology;
- to evaluate the Company's business objectives and in force portfolio in the context of emerging issues and market trends; and
- to review and discuss the quarterly report of the Chief Underwriting Officer ("CUO") to the Committee.

The following information sets out the membership of the Board Sub-Committees as at 31 December 2018.

- Audit Committee: Stephen Curley (Chairman), Michael Constantinides, Andrew Rippert
- Risk Committee: Seamus Fearon (Chairman), Stephen Curley, Michael Constantinides, Andrew Rippert
- Underwriting Committee: Andrew Rippert (Chairman), Anthony Asquith, Stephen Curley, H. Beau Franklin

B.1.2 Code of Business Conduct

The Company has adopted the Group Code of Business Conduct, which describes our ethical principles for the conduct of our business. The full text of our Code of Business Conduct and our Corporate Governance Guidelines are available on the Company's website located at www.archcapgroup.com.

B.1.3 Independent Control Functions

The Company has in place four key independent control functions as required under the Corporate Governance Requirements for Insurance Undertakings 2015. These are:

- Risk Management (See Section B.3)
- Compliance (See Section B.4.2)
- Actuarial (See Section B.6)
- Internal Audit (See Section B.5)

These functions are responsible for providing oversight of and challenge to the business and for providing assurance to the Board in relation to the Company's control framework. Each function has the necessary authority, resources and operational independence to meet their responsibilities.

B.1.4 Material Changes

There have been no material changes in the systems of governance of the Board and Committees during 2018. However, the Board membership changed during 2018.

Giuliano Giovannetti resigned as CEO and Executive Director effective 30th July 2018. Michael Bennett was appointed CEO and Executive Director effective 22nd October 2018.

B.1.5 Remuneration Policy and Practices

The ACGL Compensation Committee, in its capacity as a committee of the Board of Directors, has overall responsibility for approving and evaluating, and making recommendations to the Board regarding compensation plans, policies and programs of the Company for senior executives, as well as compensation parameters for all other employees of the Company and its controlled subsidiaries.

The Company has a Remuneration Policy in place which is guided by principles which are embedded in the Company's risk management framework and in the Group Code of Business Conduct and Compliance and Ethics Program ("Ethics Code"). The Ethics Code embodies the Group's goal of promoting an organizational culture that encourages the highest standards of ethical business conduct. The Remuneration Policy follows compensation parameters established and approved by ACGL Compensation Committee.

The Board of the Company is responsible for the implementation and administration of the Remuneration Policy. It is not deemed appropriate or proportionate, given the scale of the business and the governance structure in place in Ireland and within the Arch Group, to appoint a Remuneration Committee. At least annually, the Risk Committee of the Company will review the Remuneration Policy against the Company's risk framework and provide recommendations to the Board. The Board will review the Risk Committee's recommendations and ultimately approve the Remuneration Policy for implementation if appropriate.

The CEO is responsible for reporting to the Board on the implementation and operation of this Remuneration Policy, and consequent controls and processes. The Compliance Officer ("CO") is responsible for providing advice, implementing a monitoring program and reviewing the Remuneration Policy at least on an annual basis as part of the Compliance Plan. The CO and CEO will present recommendations for changes to the Remuneration Policy to the Risk Committee.

The CO will monitor the implementation of the Remuneration Policy, then conferring with the CEO and, if needed, Group Human Resources staff, confirm that the Remuneration Policy is being implemented appropriately. Reasonable evidence of the implementation shall be provided to the CO.

Responsibility for the determination of fixed salary levels rests with the CEO. For departmental staff, consultation is undertaken with department heads. The remuneration of the CEO is set at the Group level.

The principal features of our compensation programs and policies are summarized below.

- **Key Principles:**

Remuneration decisions are meant to encourage employees to meet the strategic aims and objectives of the Company within a framework of prudent and effective risk management and system of internal controls. Remuneration decisions should also take into account financial and non-financial considerations, as well as an employee's functions, responsibilities and experience.

- **Material Risk Takers:**

With respect to Material Risk Takers specifically, the Policy also embodies the Group's guiding principles to emphasize long-term compensation tied to Group performance in order to mitigate excessive risk-taking. Arch philosophy requires exercise of judgment in making compensation decisions for employees after reviewing the Group's and Company's overall performance and long-term interests and evaluating an employee's performance during the year against established objectives, leadership qualities, scope of responsibilities and current

compensation. Specific factors affecting compensation decisions include key financial metrics, such as growth in book value, return on capital, after-tax operating income, combined ratio and investment performance, as well as achieving strategic objectives and supporting the Arch Group's values by promoting a culture of integrity through compliance with law and its ethic policies. Fixed (base salary) and variable (bonus) components of remuneration may be adjusted upwards or downwards based on these considerations. The Group can modify or terminate elements of the compensation program for Material Risk Takers which create a fully flexible bonus policy, including the possibility of no payout of the variable cash component and no issuance of new equity awards.

- **Formula Approach:**

Material Risk Takers and some senior non-Material Risk Takers who perform an underwriting or underwriting support function and who are eligible to receive cash bonuses will be granted them based on a "Formula Approach", which is determined by ACGL. Under the Formula Approach, a bonus pool is established for each business segment based on underwriting performance during a given underwriting year. Further, individual performance is factored using a modifier to the target which becomes the basis for future payouts for that specific underwriting year. For each underwriting year, the bonus pool will be recalculated annually as actual underwriting results emerge, and any resultant payments will be made to the employees over a 10-year development period. A deferral period of three years is in place for a substantial portion of the bonus in that the bonus is paid out over ten years. The Group adopts this approach because it believes that much of its business requires multiple years to determine whether the business written has been successful (in terms of return on capital). The Group believes that making payments to employees over a period of years as actual results become known effectively aligns pay with performance. Thus, performance-based remuneration is awarded in a manner which promotes sound risk management, does not induce excessive risk-taking and encourages the highest standards of ethical business conduct.

- **Risk Management:**

We believe our approach to evaluation of performance and the design of our compensation programs assists in mitigating excessive risk-taking that could harm our Company. We emphasize variable compensation that is tied to Company performance. For senior management, we emphasize long-term compensation that vests over a multi-year period. Furthermore, and as discussed above, the Formula Approach is based on underwriting performance during a given underwriting year. For each underwriting year, the bonus pool will be recalculated annually as actual underwriting results emerge, and any resultant payments will be made to the participants over a 10-year development period. Since much of our business requires multiple years to determine whether we have been successful in our assessment of risk, we have structured our plan in this manner so that incentive payments are made to employees as actual results become known. In addition, senior management is

subject to our clawback policy and share ownership guidelines with hedging/pledging restrictions.

B.1.6 Supplementary Pension / Early Retirement Schemes

The Company operates a defined contribution plan for certain employees. A defined contribution plan is a pension plan under which the Company pays fixed contributions into a separate entity and has no legal or constructive obligation to pay further contributions or to make direct benefit payments to employees if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods. The assets of the plan are held separately from the Company in independently administered funds. The contributions to the defined contribution plan are recognised as an expense when they are due. Amounts not paid are shown in accruals in the balance sheet.

B.1.7 Material Transactions

We are not aware of any material insurance or other business transactions between the Company and shareholder controllers, persons who exercise significant influence, the Board or senior executive during the reporting period.

B.1.8 Assessment of Adequacy of System of Governance

The system of governance has been established taking account of the principle of proportionality, such that they are appropriate to the size, nature and scale of the Company's operations. The Compliance Function conducts an annual review of the Corporate Governance Requirements. Accordingly, the system of governance is considered adequate for the Company.

B.2 Fit and proper requirements

B.2.1 Fit and Proper Process

The Company's Fitness & Probity policy sets out the guidelines to ensure that employees meet the fit and proper standards, both on entry and throughout their employment at the Company. The CEO is responsible for implementing this policy, while the Compliance Officer is responsible for providing advice, implementing a monitoring program and reviewing the policy at least annually.

The Compliance Officer identifies and maintains a record of Pre-Approved Controlled Function ("PCF") and Controlled Function ("CF") holders. Before the Company can appoint a person to a PCF, the CBI must have approved the appointment in writing.

The Fitness & Probity policy sets out a number of steps that must be carried out before proposal of a PCF to the CBI. These include, but are not limited to:

- A competency interview to establish evidence of the required competencies.
- A full chronological interview to establish patterns and trends in behaviour that should indicate integrity and competency.
- A full and thorough screening by an independent third-party company with a recognized reputation for pre-employment screening, where necessary.

- Pre-employment screening including identity verification, credit and bankruptcy checks, self-certification on conflicts of interests, directorship checks, education and professional qualifications validation, employment reference checks, compliance and regulatory checks.

B.2.2 Professional Qualifications, Skills and Expertise

The Company ensures that all persons who hold key positions or functions are fit to provide sound and prudent management through their professional qualifications, knowledge and experience and are proper by being of good repute and integrity.

As described above, the Fitness and Probity policy sets out the due diligence that must be performed before a candidate is proposed to the CBI to a PCF role, or appointed to a senior management position. The process aims to ensure that key function holders and decision makers have the requisite employment experience, technical skills, professional qualifications and key competencies to perform their duties to the highest standard.

All employees are monitored on an on-going basis through a formal performance appraisal process and continuing professional development (“CPD”). Specific requirements include:

- Appraisal meetings are conducted in the third month of employment for all new hires.
- The appraisal meeting focuses on development by reviewing the employee against a set of competencies specific to their role and on setting objectives for the next year and measurement of goals during the first three months of employment. Competency is also reviewed at this meeting.
- Formal appraisal meetings are held annually to ensure that staff continues to meet their goals and to set new objectives for the year ahead.
- Appraisal meetings and development requirements are documented and training needs are actioned via the appropriate training methods.
- Employees are required to maintain an on-going record of their CPD/training.
- Employees are required to attend a minimum level of training courses and maintain a minimum standard of competency. Examples of areas covered by on-going training are work specific roles; general insurance; legal issues and regulations.
- Employees also are required to complete in-house training, including code of conduct training, anti-harassment training and anti-money laundering training.

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

B.3.1 Risk Management Function

The Board has approved the CRO, who is responsible for the Risk Management Function. The Board has approved a Risk Management Charter and Terms of Reference for the CRO and the Risk Management Function and reviews the terms of reference annually. The Risk Committee has approved the annual risk plan and reviews the plan annually.

The CRO's primary responsibility is to the Board, and reports to the Board periodically with direct access to the Chairman of the Board. The CRO also reports to the Risk Committee, at least quarterly.

The Risk Management Function and CRO carry out the following duties:

- ensure that the Company has and maintains effective processes to identify, monitor, manage and report on the risks to which the Company is or might be exposed;
- measure and assess the controls of material risks;
- implement the risk management framework and risk policies;
- prepare a regular risk report including a view of all current and future material risks;
- provide comprehensive and timely information on the Company's material risks which enables management and the Board of Directors (the Board) to understand the overall risk profile;
- be the central point for risk reporting;
- maintain a Risk Function calendar of activities;
- report on the effectiveness of the risk management system;
- provide advice on risk management to all Stakeholders;
- provide education and training on risk matters to colleagues and staff in related companies as needed;
- promote a strong risk culture;
- co-ordinate the annual refresh of the risk policies;
- maintain the risk register;
- lead the ORSA process; and
- facilitate the setting of the risk appetite by the Board.

B.3.2 Risk Management Process and Procedures

As described above, the CRO produces regular risk reports, including the quarterly CRO report. This reporting aims to provide the Board and Risk Committee with sufficient oversight of the Risk Management Framework and the risks to which the company is exposed.

The ORSA process is carried out throughout the year, which facilitates integration with decision making, culminating in the annual ORSA report which is owned and shaped by the Board.

The Company has a Risk Management Framework in place which is designed to support the Company's decision-making procedures by providing consistent, reliable and timely risk information and protecting capital from risks that exceed established risk tolerances.

The following narrative provides an overview of the Risk Management Framework, which sets out the Company's methodology for identifying, measuring, managing and reporting on the key risks affecting the Company. It outlines the Company's approach to risk identification and assessment and provides an overview of the Company's risk appetite and tolerance for each of the following major risks:

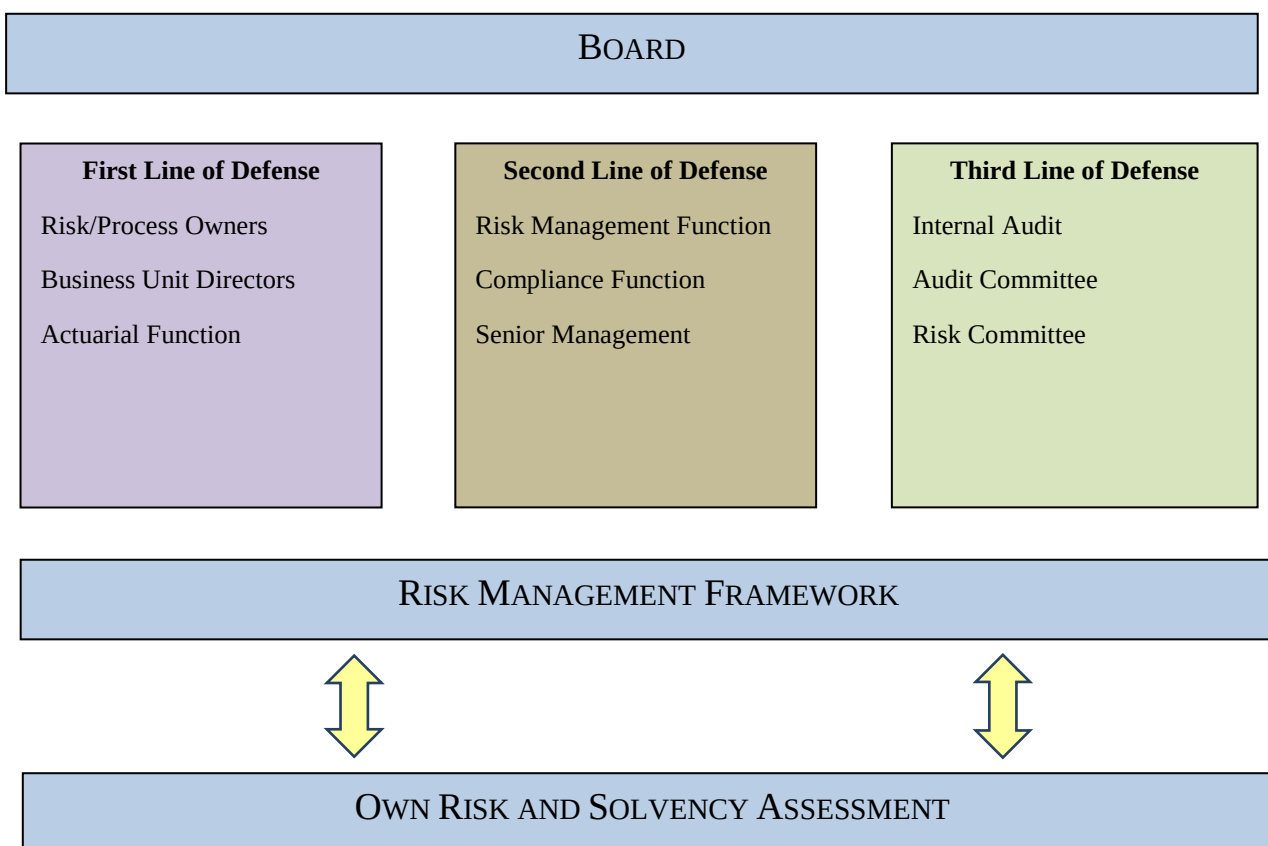
- Underwriting risk;
- Market risk;

- Counterparty credit risk; and
- Operational, including governance, regulatory, business/strategic, investor relations (reputational), rating agency and outsourcing risks.

The framework includes details of the Company's:

- Risk philosophy and policies to address the material risks confronting the Company; and
- Compliance, approach and procedures to control and or mitigate these risks.

The Risk Management Framework follows the Three Lines of Defense model, and fits into the overall governance structure as follows:



The actions and policies implemented to meet the Company's business management and regulatory obligations form the core of this framework. The Company has adopted a holistic approach to risk management by analysing risk from both a top-down and bottom-up perspective.

Risk Identification and Assessment

The Risk Committee of the Board oversee the top-down and bottom-up review of the Company's risks. Given the nature and scale of the Company, the Committee consider underwriting, investments and operational risks within the scope of the assessment. The CRO assists these committees in the identification and assessment of all key risks.

The CRO is responsible for maintaining the Risk Register and continually reviewing and challenging risk assessments, including the impact of emerging risks and significant business developments. Board approval is required for any new high level risks or change in inherent / residual designations.

Risk Monitoring and Control

The Company's Risk Management Framework requires risk owners to monitor key risks on a continuous basis. The highest residual risks are actively managed by the Risk Committee. The remaining risks are managed and monitored at a process level by the risk owners and/or CRO.

Risk owners have ultimate responsibility for the day-to-day management of each designated risk, reporting to the CRO on the satisfactory management and control of the risk and timely escalation of significant issues that may arise in relation to that risk.

The CRO is responsible for overseeing the monitoring of all risks across the business and for communicating to the relevant risk owners if he becomes aware of issues, or potential and actual breaches of risk appetite, relevant to the assigned risks.

A key element of these monitoring activities is the evaluation of the Company's position relative to risk tolerances and limits approved by the Board.

Risk Reporting

Quarterly, the CRO compiles the results of the key risk review process into a report to the Risk Committee for review and discussion at their quarterly meeting. The report includes:

- An overview of selected key risks (e.g., Underwriting, Market, Credit);
- Changes in the rating of high level risks in the Risk Register;
- A risk dashboard that depicts the status of risk limit and tolerance metrics;
- Summary of largest exposures and concentration risks; and
- Reinsurance arrangements, including outstanding and uncollectible recoveries.

If necessary, risk management matters reviewed at the Risk Committee meeting are presented for discussion by the Board. The CRO is responsible for immediately escalating any significant risk matters to the Company executive management, the Risk Committee and/or the Board for approval of the required remediation.

B.3.3 Implementation and Integration of ORSA

The Company believes an integrated approach to developing, measuring and reporting its ORSA is an integral part of the Risk Management Framework. The ORSA process provides the link between the Company's risk profile, its Board-approved risk appetite including approved risk tolerances and limits, its business strategy and its overall solvency requirements.

The ORSA is the entirety of the processes and procedures employed to identify, assess, monitor, manage, and report the short- and long-term risks the Company faces – or may face – and to

determine the capital necessary to ensure that overall solvency needs are met at all times. The ORSA also makes the link between actual reported results and the capital assessment.

The ORSA process and reporting are integral parts of the Company's business strategy, tailored specifically to fit into the Company's organizational structure and risk management system with the appropriate techniques in place to assess its overall solvency needs, taking into consideration the nature, scale and complexity of the risks inherent in the business.

The Company also takes the results of the ORSA into account for its system of governance, including long-term capital management, business planning and new product development. It also contributes to various strategic decision-making including how best to optimise capital management, establishing the most appropriate premium levels and deciding whether to retain or transfer risks.

The ORSA is the basis for risk reporting to the Board and its committees and acts as a mechanism to embed the Risk Management Framework within the Company's decision making processes and operations. The Board has delegated responsibility for supervision and oversight of the ORSA to the Risk Committee. This oversight includes regular reviews of the ORSA process and output.

An ORSA Report is produced at least annually and the results of each assessment are reported to the Board. The Board actively participates in the ORSA process by steering how the assessment is performed and challenging its results, including suggesting and challenging stress scenarios. This assessment is also taken into account when formulating strategic decisions for the Company.

B.3.4 Performance, Documentation and Review of the ORSA

A full ORSA cycle is performed at least annually and reported to the Risk Committee of the Board.

The ORSA process is a circular process that relies on key elements of the business:

- **The Board outputs** - Strategy / Capital Management Plan / The Board Risk Appetite
- **Business planning** - providing the basis for the base case projections
- **The Solvency II Pillar I standard formula** - 3 year outputs & base assumptions used
- **The Risk Committee** - who review, challenge & approve the test scenarios, and ORSA process and output
- **The Actuarial Function** - who quantify technical provisions and provide other input into the Pillar I model
- **The Risk Function and Management** - who quantify the Pillar I capital requirements, assess the outputs and prepare the reports
- **The Risk Committee & Board** - who provide an assessment of the output and resultant capital, strategy & risk appetite review
- **ORSA Reporting to the all stakeholders**

The Key Activities in the ORSA Process are:

- Strategy & Planning
- Pillar I base outputs and assumptions
- Risk identification & assessment
- Scenario setting
- Scenario testing through the Pillar I model & production of test output
- Review of test output & report preparation
- Risk Committee & Board review & Reporting

Each run of the ORSA process will be appropriately documented to evidence each of its constituent parts, and this record will be retained for any later scrutiny.

The documentation shall contain:

- A summary of the Board strategy for the Company
- The Risk Appetite Statement
- The Pillar I standard assumptions & output
- The schedule of scenarios to be tested, cross-referenced to the Risk categories in the Board's risk appetite, and quantification of deviations from the base assumptions
- The scenario test results
- The ORSA report
- Any Audit and Risk Committee Minutes relating to scrutiny & challenge of the ORSA process & outputs
- Any Board minutes relating to ORSA output review & challenge – resultant strategy decisions and risk appetite review
- A record of the report to the CBI

B.3.5 Relationship between the ORSA, Solvency Needs, and Capital and Risk Management Systems

The Company has both a Capital Management Policy and Capital Management Plan in place. The Risk Management Function is responsible for developing and maintaining the Capital Management Plan. The Risk Committee reviews and monitors the plan and presents it to the Board for approval. The Audit Committee is responsible for monitoring the alignment of the investment strategy with the plan.

The Capital Management Plan incorporates the output from the ORSA and associated reporting. The plan also sets out triggers for corrective capital actions relative to the Company's Solvency Ratios, both in terms of Solvency Capital Requirement ("SCR") and Minimum Capital Requirement ("MCR").

The Company's capital planning process aims to be dynamic and forward-looking in relation to the Company's risk profile and shall take into account the output from the Company's risk

management activities and the ORSA process and associated reporting as part of capital planning activities.

As such, capital planning activities take into account any current or anticipated changes in the Company's risk profile, such as those reflected in its business plan, and forecasting the related impact on capital. In addition, as part of its capital planning, the Company integrates projected capital needs with its business planning and financial forecasting processes.

The Capital Management Plan identifies a number of potential sources of capital and associated corrective actions that may be utilised to restore sufficient capitalisation, depending on the severity of the capital requirements placed upon the Company.

When considering the sources of capital and corrective actions, the Company will have regard to the Solvency II Own Fund requirements.

Any material changes in the underlying risks, such as changes in business mix, reinsurance strategy and investment strategy, are modeled for potential impact upon the Company's capital requirements. The result of this process is to ensure that all material risks feed into the capital requirements analysis, and in some cases also trigger further investigation through stress testing.

B.3.6 Approval Process

The Company records the actual performance of the overall capital assessment and the assessment of any deviations in its risk profile from the assumptions underlying the capital requirements analysis to a level of detail that enables a third party to evaluate the assessments performed.

The CRO prepares a quarterly report for the Risk Committee covering risk management in general, including relevant ORSA topics, for discussion in the Risk Committee meetings. The Risk Register is presented to the Risk Committee on an annual basis for review, followed by Board approval. Any material changes in the risk management strategy, policies, processes, procedures and/or capital requirements analysis are presented to the Board for approval.

The ORSA policy and the ORSA report are reviewed by the Risk Committee and recommended to the Board for approval

B.4 Internal control system

B.4.1 Internal Control System

The Company maintains an effective internal control system, which includes administrative and accounting procedures, an internal control framework, appropriate reporting arrangements and a compliance function.

The Board is responsible for monitoring the establishment and maintenance of the system of controls used to assess and manage exposure to all areas of risk. The objectives of these controls are to ensure that the Company's risk strategy is maintained and risk remains within the appetite and tolerances set by the Board.

The Company is part of Group-wide compliance activities, including management's assessment to confirm the design and operating effectiveness of internal controls over financial reporting and the identification and testing of key internal controls, including any required remediation.

The Board has delegated management and oversight of certain controls to appropriate forums within the Group. The Company's internal control framework provides an appropriate level of reporting on the control environment to the Board.

Controls are detailed in the Risk Register, which associates elements within the category of risk to one or more mitigating controls. The Company's internal control framework includes reviews of both the design and effectiveness of key controls, with results of this periodic evaluation regularly reported to the Board.

B.4.2 Compliance Function

Implementation of the Compliance Function

The Board has approved a Compliance Officer, who is responsible for the Compliance Function. In addition, the Board has approved a Compliance Function Terms of Reference and Charter ("Compliance Charter") and a Compliance Plan. Both have to be reviewed on an annual basis. Changes have to be approved by the Board.

The Compliance Charter contains, among other topics: Mission Statement, Guiding Principles, Responsibilities, Powers, Limitations, Activities, Planning and Reporting of the Compliance Function.

While the Board retains primary responsibility for compliance and governance within the Company at all times, senior management plays an important part in ensuring effective governance and compliance and hence is responsible for operating effective oversight consistent with Board policy. The role of the Compliance Function is to assist and advise the Board and management with their responsibilities. In addition, senior management and all staff members are responsible for their own regulated activities and for complying with relevant rules, legislation, standards, contracts, policies and procedures relevant to their work.

The high-level goals of the Compliance Function are:

- To ensure that a proportionate compliance infrastructure is in place;
- To identify and manage compliance risks;
- To implement a review and monitoring program; and
- To help the business to meet requirements with applicable legislation and regulation.

The Compliance Officer has to produce and submit an Annual Compliance Plan to the Board for approval. The Compliance Plan ensures that the Compliance Function's work has a focus with measurable output that is understood by and aligns with expectations of the business. It determines the actions that the Compliance Function needs to achieve in the next 12 months.

The Compliance Plan shall cover at least the following:

- Compliance Objectives;
- Compliance Resources;
- Provision of regulatory staff training;

- Revision of existing policies and procedures;
- Preparation of new policies and procedures;
- Monitoring – details of a risk based monitoring review program;
- Projects – on-going and planned business or regulatory projects;

The Compliance Officer is required to make following internal reports:

- Quarterly to the Audit and Risk Committees;
- Monthly to the CEO; and
- Promptly any medium or major compliance issues identified to the relevant person and the CEO.

Independence and Authority

The Compliance Officer does not hold any other responsibilities for the Company besides compliance. He attends Committee and Board meetings and reports to the Audit and Risk Committee and the Board on all relevant matters.

The Compliance function is authorized to review all areas of the Company and has full, free, and unrestricted access to all Company activities, records, property and personnel. Compliance has full and direct access to the Board and the authority to escalate matters to ACGL where required.

B.5 Internal audit function

Arch Capital Services Inc. (“ACSI”) provides internal audit services to all ACGL entities and is led by the Director of Internal Audit Services (“IAS”). The Company is included within the scope of IAS’s responsibilities. As such, it is deemed by the Company that the internal audit function is effectively outsourced to ACSI.

IAS is an independent, objective, assurance and consulting activity designed to add value and improve the Company’s operations. It helps management and the Audit Committee to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes.

IAS is adequately staffed by competent individuals and is objective and independent of the Company’s day-to-day activities. Where necessary, IAS utilizes external resources to support its work. Appropriate budgets are set to support IAS.

IAS has appropriate access to all staff, Senior Management and records, including those relating to third party service providers. No restrictions are placed on the scope of IAS’s work. The Risk Committee is required to inform IAS of all noted control deficiencies, when losses are sustained and or of any definite suspicion of irregularities.

IAS’s scope encompasses, but is not limited to, the examination and evaluation of the adequacy and effectiveness of the Company’s procedures and internal controls related to its business processes, financial reporting, governance and risk management functions. In addition, IAS may perform special examinations and tasks at the request of management, the Board, or the Audit Committee.

B.5.1 Internal Audit Reporting

The Director of IAS reports to the Chairman of the ACGL Audit Committee and administratively to the ACGL Chief Financial Officer. The Director of IAS also reports to the Chairman of the Company's Audit Committee for the Company related activities and has direct access to all members of the Audit Committee.

An Annual Internal Audit Plan ("Audit Plan") is produced and submitted to the Company's Audit Committee prior to the start of the year to which the Audit Plan pertains. It summarizes IAS's risk assessment of the business, the scope of its work, the competencies of the team, and the resources, both internal and external, required to accomplish the Audit Plan. The Plan takes into consideration management's view of key and emerging risks per the Risk Register, as well as IAS's assessment of the Company's key and emerging risks and related controls and their linkage to historical and planned audits. IAS also performs a process based risk assessment which analyse risks within each of the business processes, to assess the impact on the Audit Plan. The rationale for internal audit activity for each year is also detailed within the Audit Plan and is based on a number of factors which include, but is not limited to, the assessed level of risk associated with each business process, planned operational changes, new or expanding lines of business, consideration of the work performed by other assurance providers, etc.

IAS maintains communication with other assurance providers in order to identify potential issues and also to leverage where applicable upon the work they perform. The Audit Plan includes an overview of the various other assurance activities performed upon which IAS places partial reliance and which provides additional rationale for areas of focus. In addition, IA regularly communicates with the Compliance Officer and Chief Risk Officer throughout the year to discuss relevant Risk/IA matters.

IA maintains a comprehensive Policy document which outlines key IA practices, its audit methodology and also internal/external Quality Assurance requirements. In addition, at the engagement level, IAS issues a planning and scoping memo prior to each audit which details the scope of the audit including any specific exclusions, as well as resources and timing of fieldwork and reporting. During fieldwork, audit procedures will include both substantive testing and control testing (including inspection and/ or re-performance) where appropriate. Audit evidence is retained for all audit work performed.

Subsequent to completion of fieldwork and discussion of findings with management, IAS issues a report (or memo where appropriate) for all audit engagements and reviews performed. These reports or memos include a management response for all recommendations along with a target date for remediation. The progress of all recommendations is monitored by IAS and periodically reported to the Audit Committee.

In addition to the annual Audit Plan, IAS presents an Internal Audit Status Report at the quarterly Audit Committee meetings. The report includes (but is not limited to):

- Changes to the original Audit Plan presented to the Audit Committee;
- Status of the audits included on the Audit Plan;
- Results of recently issued audit reports;
- Status of prior audit findings and recommendations; and
- Any other matters which in the Director of IAS's opinion requires reporting to the Audit Committee.

B.5.2 Maintaining Independence

A key feature that ensures the independence of the Internal Audit function is its positioning outside of functional roles and responsibilities. IAS staff are employees of Arch Group and may not carry out operational roles for Arch EU. IA has an “Objectivity” policy which defines conflict of interest situations and measures to be taken to address such situations and IA required to complete the standard ACGL conflict of interest forms annually. The Director annually confirms the independence of the IA function to the ACGL Audit Committee. Also, an IA Charter exists at the ACGL level which is applicable to all subsidiaries. IA governs itself by adherence to the mandatory elements of The Institute of Internal Auditors’ International Professional Practices Framework.

The Internal Audit policy sets out the following specific measures aimed at ensuring independence:

- The Internal Audit function is managed and run by personnel separate to Arch EU management.
- The Director of IAS has the authority to inform the CBI of any issues should it be deemed necessary.
- The staff in the IAS function have no involvement in the day to day operations of the Company.
- IAS has access to all staff, management and records and no restriction may be placed on this access or the scope of IAS’s work.
- Remuneration of the Internal Audit team is not linked to the Company’s financial performance. Remuneration of the Director of Internal Audit is approved by the ACGL Audit Committee.
- IAS reports directly to the Audit Committee, not to operational management.

B.6 Actuarial function

The Board has approved the Head of Actuarial Function (“HoAF”), who is responsible for the Actuarial Function. The Board has approved terms of reference for the Actuarial Function and reviews the terms of reference annually. The terms of reference state that the Actuarial Function must be free from influence from other functions and the Board.

The HoAF’s primary responsibility is to the Board. The HoAF in performing their duties acts independently of the Company’s business units. The Board provides oversight to ensure the HoAF has adequate resources and authority to operate effectively.

The main activities of the Actuarial Function in a Solvency II environment shall include the requirements of the Solvency II Directive, the Central Bank of Ireland’s Domestic Actuarial Regime and the Central Bank of Ireland’s Guidance for (Re)Insurance Undertakings on the Head of Actuarial Function Role, including:

- Coordinate the calculation of Technical Provisions;

- Ensure the appropriateness of the methodologies and underlying models used as well as the assumptions made in the calculation of Technical Provisions;
- Assess the sufficiency and quality of the data used in the calculation of Technical Provisions;
- Compare best estimates against experience;
- Inform the Board of the reliability and adequacy of the calculation of Technical Provisions;
- Oversee the calculation of Technical Provisions in the cases set out in the regulations;
- Express an opinion on the overall underwriting policy;
- Express an opinion on the adequacy of reinsurance arrangements; and
- Contribute to the effective implementation of the risk management system
- Provide an Actuarial Opinion on Technical Provisions;
- Provide Actuarial Report on Technical Provisions; and
- Express an opinion on each ORSA process.

On an annual basis the HoAF prepares an Actuarial Opinion on Technical Provisions (“AOTP”) and presents the Actuarial Report on Technical Provisions (“ARTP”) to the Board of Directors. The ARTP is prepared in line with relevant regulatory and Actuarial Standards of Practice. The actuarial function comprises experienced, fully qualified, individuals with in-depth knowledge of actuarial and financial mathematics. The function is staffed appropriately given the nature, scale and complexity of the risks inherent in the integrated operations.

ACGL’s Chief Actuary oversees actuarial policies throughout the Group, as well as development of Group-wide actuarial techniques and education. This individual provides an independent assessment of the Group’s reserves to the ACGL Audit Committee each quarter.

B.7 Outsourcing

B.7.1 Outsourcing Policy

The Company defines outsourcing as contracting out part or all of an internal business process to a third party provider (either outside or inside the Arch Group of companies). In this regard the Company may use the external service provider’s processes and controls to perform the agreed upon services. However, the Company will retain all decision making and ultimate responsibility over the business function and maintain the appropriate monitoring mechanisms to ensure adherence to a service level agreement.

The Company has an Outsourcing Policy in place which sets out the following:

- The definition of outsourcing
- Responsibility for implementation and operation of the policy and consequent controls and processes
- The criteria for outsourcing
- The approval process
- Contract and legal requirements

- Risk assessment and risk mitigation measures
- Monitoring and on-going requirements

Key functions that have been outsourced (within the Arch Group) include:

- Investment Management Services (to Arch Investment Managers)
- Internal Audit (to Director of Internal Audit Services at ACSI)

No key functions have been outsourced externally.

B.8 Any other information

No other material information to report as of 31 December 2018.

SECTION C – RISK PROFILE

Overview

The Company's risk appetite framework provides an expression of the level of risk the Company is willing to accept in pursuit of its strategic objectives. The risk appetite framework provides quantitative and qualitative statements which are used to define the general attitude within the organization towards the desired level of risk. It not only supports the Company's risk management framework; it also enables the Company to make informed business decisions having regard to the key risks to which it may be exposed by such a decision.

In general, the Company has an appetite for insurance (underwriting) risk and a tolerance for other forms of risk. The risk philosophy of the Company encompasses all major risks and focuses on attaining the following business objectives:

- Underwrite business that meets agreed targeted returns
- Underwrite only carefully selected business lines
- Manage underwriting volumes in line with the business cycle
- Limit the downside risk such that the Company maintains a sufficient solvency margin.

The following table shows the composition by sub-module of the SCR at year ended 31 December 2018 and at year ended 31 December 2017.

Composition of SCR by Risk sub-module	Year ended 31/12/2018	Year ended 31/12/2017
Non-Life Underwriting Risk	11.8%	4.9%
Market Risk	86.2%	93.3%
Credit Risk	1.1%	0.9%
Operational Risk	1.0%	0.9%

C.1 Underwriting risk

C.1.1 Key Underwriting Risks

Underwriting Risk refers to the risk of loss, or of adverse change in the value of insurance liabilities, due to inadequate pricing or risk quantification assumptions which includes the fluctuations in the timing, frequency and severity of insured events. At a risk policy level, we consider underwriting risk is linked to reserving risk. Reserving risk refers to the risk of loss, or of adverse change in the value of insurance liabilities, due to inadequate reserving assumptions which includes the fluctuations in the timing, frequency and severity of insured events.

Furthermore, the nature of the business we write means we are exposed to regulatory, legislative and fiscal changes, economic factors and changes in behaviour.

The resulting key underwriting and reserving risks identified by management are:

- Reserve Risk: The risk of loss, or adverse change, in the value of insurance liabilities due to the occurrence, amount, and timing of claims, inadequate pricing and provisioning assumptions.
- Pricing Risk: The risk of loss due to inadequate pricing of business pre-claim.
- Catastrophic Risk: The risk of loss from infrequent high severity claims from natural or man-made disasters.

C.1.2 Material Risk Concentrations

The Company currently only writes credit and suretyship business on housing loans, which leads to some concentration of risk. However, within this category the Company writes different types of risks, from a variety of lenders and in different countries. Therefore, there is no material underwriting risk concentration.

An identified risk to the Company is an inappropriate concentration of underwriting risks, through over-exposure to a particular geographic region, line of business or client. The risk is monitored in the Risk Register and is managed through a number of controls, including the setting of exposure limits, quarterly measurement and reporting of accumulations. After controls, the risk is considered low impact; therefore, there is not considered to be material underwriting risk concentration.

C.1.3 Underwriting Risk Mitigations

The Company cedes quota share reinsurance via an intra-group transaction to an affiliate company, ARL, to mitigate losses and to allow efficient capital management. The percentage ceded is 90% under the reinsurance transaction.

In addition, underwriting risk is further mitigated through a number of controls and practices, which include the following:

- Business performance is monitored regularly, including consideration of market factors, pricing trends and strategic challenges
- Actual performance is compared against expected each quarter
- Actuarial review of reserves by the Company and Group actuaries
- Periodic audits of clients
- Contracts are subject to the four eye review principle which ensures that underwriting guidelines are being adhered to

C.1.4 Stress and Sensitivity Testing

Stress and scenario testing is carried out as part of the ORSA process, which is conducted at least annually. These tests consider moderate as well as extreme but plausible stresses and assess the impact on the Company's capital position.

We considered a number of scenarios in the ORSA which aim to reflect the underwriting and reserving risk to which the company is exposed. Numerous Realistic Disaster Scenarios ("RDS") were devised in conjunction with the underwriting team; these represent very adverse scenarios

to which the Company could be exposed. The projected SCR and Own Funds were then calculated under each of these scenarios, allowing us to assess the capital impact of each scenario.

Due to the Company's capital strength, while the stresses showed deterioration in the Company's capital position, none of the scenarios were considered likely to result in a breach of the SCR. The Company's underwriting risk profile is therefore considered to be resilient to most shocks.

C.2 Market risk

C.2.1 Key Market Risks

Market Risk is the risk of changes in income or values of assets arising from fluctuations in political and economic variables (systemic), including interest rates, currency exchange rates, equity markets, commodity markets and real estate markets. It is the risk of loss, or adverse change, resulting directly or indirectly from fluctuations in the prices of assets. Market Risk includes the following specific components:

- Currency Risk
- Interest Rate Risk
- Spread Risk
- Property Risk
- Equity Risk

Market Risk is also affected by:

- Concentration Risk: The risk that the Company will suffer losses from lack of diversification with regards to a particular sector, industry, geographic region, security, or asset class in the investment portfolio. Concentration Risk also includes the risk of failure to identify and manage correlation risk between insurance/reinsurance operations and invested assets.
- Investment Credit Risk: The risk of loss, or adverse change in financial condition, resulting from fluctuations in the credit standing of issuers of securities and counterparties to which undertakings are exposed, in the form of counterparty default risk, or spread risk, or market risk concentration risk.

The Company's primary investment objective is to preserve capital and ensure adequate liquidity for policyholder claims, while supplementing the return on equity ("ROE") generated by the insurance underwriting operations. The key market risks identified by management are:

- Failure or impairment of investment counterparty
- Exposure to foreign currency fluctuations

C.2.2 Material Risk Concentrations

The Company has a diversified portfolio of assets with no material risk concentrations in non-government securities. The Company's investment guidelines have specific single issuer limits, including sovereign and supranational single issuer limits, to prevent asset risk concentrations.

Exposure to foreign currency fluctuations (USD relative to Euro) constitutes a material risk concentration.

C.2.3 Market Risk Mitigations

The Company mitigates investment risk through the implementation of appropriate controls. These include:

- Regular Board and Senior Management oversight;
- Formal agreements which delegate investment authority to AIM;
- Investment Guidelines which are structured to ensure sufficient liquidity and prevent over-exposure to any one risk sector;
- Analysis of quarterly Investment Guideline compliance confirmations issued by Investment Managers, as summarized by ACSI personnel and reviewed by the Company;
- Quarterly review of investment portfolios with the Company Senior Management;
- Appropriate trade due diligence and guideline compliance;
- Utilisation of company approved brokers, investment managers and 3rd party service providers;
- Quarterly testing of Investment Guideline compliance and subsequent review with the Company Senior Management;
- Investment portfolio reporting from AIM to the Company Senior Management and the Board. This reporting includes performance and risk summaries, and includes duration analysis;
- Accounting reconciliations across holdings and risk data; and
- Linkage between ALM and the limits for asset classes, as approved by the Board and set out in the Investment Risk Policy

C.2.4 Stress and Sensitivity Testing

Stress and scenario testing of market risk is carried out as part of the ORSA process, which is conducted at least annually. These tests consider moderate as well as extreme but plausible stresses and assess the impact on the Company's capital position.

The most material market risk exposure for the Company is currency risk. We performed an ORSA stress to reflect the Company's exposure to market risk in respect of an adverse movement of 25% in currency exchange rates. In practice this meant an instantaneous appreciation of 25% in the value of the Euro versus USD assets. Since the majority of the Company's excess capital is held in USD, this reduces the Euro value of this excess capital.

Due to the Company's capital strength, while the stress showed deterioration in the Company's capital position, the scenario was considered not likely to result in a breach of the SCR. The Company's investment risk profile is therefore considered to be resilient to most shocks.

C.2.5 Prudent Person Principle

The Company seeks to manage investment assets subject to the Prudent Person Principle which states that the Board must discharge its duties with the care, skill, prudence and diligence that a prudent person acting in a similar capacity would use in the conduct of an enterprise of similar character and objectives.

The Board has outlined the following risk management objectives in order to minimise its exposure to Investment Risk in line with the overall Company Risk Appetite:

- the Company shall adopt a conservative approach to investments and seek to safeguard the assets of shareholders;
- the Company shall hold sufficient investment values and investment liquidity to ensure all liabilities are met as they fall due; and,
- the Company shall ensure that there are appropriate policies, strategies and procedures in place to meet these objectives.

The Company adopts a conservative approach to investments and, as articulated in the Company risk management philosophy, limits Investment Risk such that the overall portfolio will consist of high quality fixed income securities and short term investments, and limits the proportion of total investments that may be represented by other investments. New investment products initiatives fall into the category of other investments and include investments such as equities and all alternative investments. Participation in new investment products are subject to Board approval. In circumstances where new products are being considered by the Company, the following steps will be undertaken:

- Detailed information will be provided describing the nature of the investment such that the Board has full information to properly evaluate the risk
- The finance function will document the impact of the new product, including an assessment of whether it complies with the prudent person principle
- A presentation will be made to the Board to explain the rationale for the proposed investment
- The Risk Committee will separately review the material and consider the impact on the Company's risk appetite and risk profile

If the proposed investment is approved, the Company's finance and compliance functions will liaise with AIM to revise or develop bespoke Investment Guidelines for the new product where appropriate. In certain circumstance, such as in the case of an investment in a fund, this may not be required.

C.3 Credit risk

C.3.1 Key Credit Risks

The Company has a low appetite for investment credit risk, which is recommended by the Company Senior Management and approved by the Board.

The Company is exposed to credit risk from the following sources:

- Investments in fixed income securities
- Deposits with banking counterparties
- Reinsurance counterparties
- Premiums collectable from insured parties and insurance intermediaries.

The key risk is that one or more of these counterparties fail.

The exposure to counterparty default risk includes banks where the Company has short term deposits, insured and insurance intermediary receivable balances and reinsurance agreements including the 90% quota share reinsurance agreement with ARL.

C.3.2 Material Risk Concentrations

The 90% quota share reinsurance agreement with ARL is a material risk concentration. As at 31 December 2018, the reinsurance recoverable from this quota share reinsurance is relatively low in comparison with the Company's own funds.

C.3.3 Credit Risk Mitigations

The Company mitigates credit risk through the implementation of appropriate controls, processes and procedures.

At purchase, securities must be rated investment grade by at least two of the following ratings agencies (if rated by all three): Moody's, Standard & Poor's or Fitch. If only two of the three agencies rate the security, the lower rating is used to determine eligibility. If only one of the three agencies rates a security, the rating must be Aa3/AA- or higher.

Money market instruments must be rated at least A1+ or equivalent by Standard & Poor's or Fitch and P-1 or equivalent by Moody's at the time of purchase.

Reinsurance and premium receivables are closely monitored and controlled, with short credit periods mitigating any risk exposure.

C.3.4 Stress and Sensitivity Testing

Due to the high level of reinsurance ceded, the Company is exposed to a material amount of counterparty default (credit risk). As one of the company's most material risks, a downgrade of the Company's intra-group affiliate ARL was considered in conjunction with a number of other adverse underwriting risk scenarios occurring simultaneously.

When stressed on a standalone basis, the Company is able to withstand the shock of a downgrade in ARL's credit rating without breaching the SCR.

Due to the Company's capital strength, while the stresses showed deterioration in the Company's capital position, none of the scenarios were considered likely to result in a breach of the SCR. The Company's credit risk profile is therefore considered to be resilient to most shocks.

C.4 Liquidity risk

Liquidity risk is the risk of the Company's inability to realize investments and other assets in order to settle its financial obligations when they fall due. Liquidity risk has low materiality for

the Company. One of the objectives of the investment risk policy of the Company is that the Company shall hold sufficient investment values and investment liquidity to ensure all liabilities are met as they fall due. To achieve this objective, the investment risk appetite permits only highly rated securities to be purchased. Risk limits and tolerances have been also set in respect of (i) asset-liability duration matching and (ii) availability of liquid assets. These risk appetites, risk limits and tolerances are monitored by the risk function and reported to the Board and Risk Committee. The Company considers that the composition of its assets in terms of their nature, duration and liquidity are appropriate in order to meet its obligations as they fall due.

C.4.1 Risk Exposure and Material Risk Concentrations

The Company considers its exposure to this risk as low. The Company monitors its liquidity in compliance with its investment risk policy and stated limits and tolerances in respect of the percentage of assets which are invested in liquid investments.

C.4.2 Risk Mitigation

Liquidity risk is mitigated by the cash held in investments and bank accounts. There are no planned changes to risk mitigation over the business planning horizon.

C.4.3 Expected Profit in Future Premium

As of 31 December 2018, the expected profit in future premium is €4.4m, all of which relates to Direct and Proportional Credit and Suretyship business. The expected profit included in future premiums is calculated as the difference between the technical provisions without a risk margin and a calculation of the technical provisions without a risk margin under the assumption that the premiums relating to existing insurance and reinsurance contracts that are expected to be received in the future are not received for any reason other than the insured event having occurred, regardless of the legal or contractual rights of the policyholder to discontinue the policy. The calculation of the expected profit included in future premiums is carried out separately for the homogeneous risk groups used in the calculation of the technical provisions. Loss-making policies are only offset against profit-making policies within a homogeneous risk group.

C.5 Operational risk

C.5.1 Key Operational Risks

Operational Risk means the risk of loss arising from inadequate or failed internal processes, or from personnel and systems, or from external events.

It also includes the risk of loss resulting from failure to comply with laws as well as prudent ethical standards and contractual obligations, and the exposure to litigation from all aspects of business activities.

Within Operational Risk, the Company also includes:

- Group Risk: Risks related to unregulated entities within the Group, implicit or explicit exposure to losses throughout the group (“contagion risk”), risks related to inter-company transactions and double gearing, the extent to which practical, legal, or regulatory barriers

to the transfer of capital between group members exist, and other additional risks which individual members of a group face by virtue of their group membership.

- Strategic Risk: Risk that strategic business decisions prove to be ill-founded or poorly executed. Examples of such risk include mergers and acquisitions, moving into new markets, business lines, or regions, changes to the operating model, or failing to anticipate or react to a more general shift in the economic environment, demographics, etc.
- Reputational Risk: The potential adverse impact of an economic loss through deterioration of reputation, credibility or standing with insurance partners, other customers, brokers and the investor community.

The Company's management has identified the following key operational risks:

- Financial and/or non-financial (e.g. reputational) loss arising from over reliance on outsourced service providers
- Inadequate claims handling
- Legal, litigation, regulatory, political and reputational risk
- Reliance on key individuals (including directors and staff at outsourced service providers)
- Inappropriate overall business strategy or inadequate monitoring of strategic decisions
- Inadequate or ineffective policies, procedures, processes and controls
- Inappropriate training, competencies and resources
- Business continuity
- IT environment
- Risks external to the Company but internal to the Group.

Those risks classified under the Operational Risk profile have been identified, assessed and articulated in the Company's Risk Register. Relevant risk and control owners report to CRO, who in turn reports to the Risk Committee and are responsible for identifying new, emergent or changing risks and any consequent control changes required to realign the risks with the risk appetite.

With respect to Legal Risk, the Company's Compliance Officer has the responsibility for monitoring new and pending legislation from the CBI or Irish Government, the European Insurance and Occupational Pensions Authority ("EIOPA") and relevant bodies in other applicable jurisdictions for items that could potentially impact the Company.

In addition, applicable international risks are identified through discussions, meetings and memos with/from law and accounting firms within the jurisdiction of all ACGL entities.

C.5.2 Material Risk Concentrations

There are no material Operational Risk concentrations.

C.5.3 Operational Risk Mitigations

The Company has put in place a strong internal control framework which mitigates operational risk. In particular, the following are key controls in managing this risk:

- Appropriate segregation of duties across all functions
- Systems access controls
- Four-eyes oversight of all key areas
- Regular management accounting process including reconciliations and checks
- Business Continuity and Disaster Recovery Plans
- All outsourced arrangements conducted under formal agreements and in accordance with the Outsourcing Policy
- Ongoing oversight and regular audits of outsourced service providers
- All material contracts reviewed by the ARL General Counsel on behalf of the Company
- Appropriate reporting to ACGL on all relevant matters to enable oversight
- Business plans and budgets reviewed quarterly
- Appropriate governance structures, including quarterly Board meetings

C.5.4 Stress and Sensitivity Testing

Operational risk is included in the Standard Formula. However, as part of its ORSA process, the Company also considers those areas of operational risk which may not be adequately covered, such as implementation and compliance with Solvency II and other relevant regulation, and other group risks. In addition, operational risk is indirectly stress tested through other risks, such as a credit down-grade of the inter-company Quota Share partners.

Operational risk comprises a moderate part of the Company's risk profile and the stress tests prove the Company's capital buffer to be sufficiently resilient to withstand this risk.

C.6 Other material risks

A number of other risks are considered to be relevant for the Company, namely group risk, strategic risk, regulatory risk and compliance risk. These risks have not been quantified but are included within the Own Risk and Solvency Assessment.

The Company considers the most material exposures in this category of risk are (i) the potential for inappropriate business strategy and (ii) the potential for regulatory breaches.

Risk controls, risk monitoring and reporting are considered to be the main method of risk mitigation.

C.7 Any other information

On 6th March 2019, the Company received authorisation from the Central Bank of Ireland ("CBI") to expand its insurance licence, covering all classes of insurance business, except Class 18 'Assistance'. The application to the CBI was made in August 2018 as part of the Group's Brexit strategy. During March 2019, the Company received permission from the CBI to underwrite insurance business in all EEA and EU Member States under the EU Freedom of Services Acts and to open branches in the UK, Italy and Denmark on a Freedom of Establishment basis.

As part of the Company's Brexit strategy, in the future there will be extensive changes to the Company's business and risk profile. The Company will expand its activities to write, in

addition to the existing mortgage insurance, personal lines motor insurance and specialty property & casualty insurance lines. However, these changes to the Company's business and risk profile will occur after the reporting period applicable to this Solvency and Financial Condition Report.

The Company has notified the UK Prudential Regulatory Authority ("PRA") of its intention to apply for a Third Country Branch (if the UK exits the EU). The PRA has confirmed that the Company is permitted to benefit from the Temporary Permissions Regime. This enables the Company to continue to provide mortgage insurance on a Freedom of Services basis into the UK until the earlier of the PRA approval of the Third Country Branch or three years after the UK withdrawal from the EU.

No other material information to report as of 31 December 2018.

SECTION D – VALUATION FOR SOLVENCY PURPOSES

D.1 Assets

The table below sets out the value of the assets of the Company as at 31 December 2018 and as at 31 December 2017 under Solvency II and Irish GAAP.

Assets	Year ended 31/12/2018		Year ended 31/12/2017	
	Solvency II	Irish GAAP	Solvency II	Irish GAAP
	€'000	€'000	€'000	€'000
Deferred Tax Asset	0	539	135	498
Deferred Acquisition Costs	0	786	0	619
Investments	71,790	71,790	67,502	67,502
Cash and Cash Equivalents	1,145	1,145	1,212	1,212
Insurance and Intermediaries Receivable	1	727	199	1,098
Other Assets and non-insurance receivables	76	76	324	324
Reinsurer's Share of Technical Provisions	4,858	20,609	3,582	14,390
Total assets	77,870	95,672	72,954	85,643

The following are the bases, methods and main assumptions used for valuation of each material class of assets for Solvency II purpose.

D.1.1 Deferred tax assets / (liabilities)

Deferred tax assets / (liabilities) are the temporary differences arising between the tax bases of assets and liabilities and their carrying amounts under Solvency II. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the balance sheet date and that are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled.

Deferred income tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised. Deferred income tax assets and liabilities are offset if there is a legally enforceable right to set off current tax assets against current tax liabilities and if they relate to income taxes levied by the same taxation authority on the same taxable entity.

D.1.2 Deferred acquisition costs

In the financial statements, acquisition costs which represent commission and other related expenses are deferred over the year in which the related premiums are earned. To the extent that acquisition costs are deferred and considered irrecoverable against the related unearned premiums, they are written off to net operating expenses as incurred.

Solvency II balance sheet is prepared based on the best estimate of future cash flow basis. Therefore, deferred acquisition costs are excluded from the Solvency II balance sheet.

D.1.3 Investments

The Company's investment assets have been valued in accordance with Irish GAAP's fair value model. The Company's investments are externally managed. The Company receives quarterly report detailing the underlying securities held in the fund. The quarterly reports are reviewed to ensure average credit ratings and durations have not moved significantly since the previous quarter. Any unusual movements or discrepancies are discussed with the fund managers. This information is presented to the Group Investment Committee every quarter.

The investments are valued at fair value under Irish GAAP and Solvency II based on market prices at the reporting date, which are quoted prices in active markets for identical assets. Where there are no quoted prices available, the fair value is determined using inputs that are observable for the assets.

The valuation of investments is consistent with the accounting valuation under Irish GAAP.

D.1.4 Cash and cash equivalents

Cash and cash equivalents are valued at fair value by the relevant financial institution, and the Company receives monthly statements at the period end to confirm the balances held. There are no significant estimates or judgements used in valuing cash holdings due to the nature of the asset.

The valuation of cash and cash equivalents is consistent with the accounting valuation under Irish GAAP.

D.1.5 Insurance and intermediaries receivables

Insurance and intermediaries receivables balance represents premiums owed from policyholders. Outstanding premiums are valued at fair value and due to the short-term nature of the receivable no adjustments to valuation are required. The valuation of insurance and intermediaries receivables is consistent with the accounting valuation under Irish GAAP except that the share of insurance and intermediaries balances which are not yet due at the valuation date are deducted from the balance and included in the technical provisions cashflow.

D.1.6 Other assets and non-insurance receivables

Other assets and non-insurance receivables have been valued using the alternative valuation method in accordance with Solvency II. The Directors have used the cost approach or current replacement cost approach, being the closest to the fair value of these assets.

The valuation of other assets and non-insurance receivables is consistent with the accounting valuation under Irish GAAP.

D.2 Technical provisions

D.2.1 Results summary

A summary of the technical provisions results for the Company as at 31 December 2018 and as at 31 December 2017 is set out below (all of the technical provisions relate to credit and suretyship business):

Technical Provisions	Year ended 31/12/2018		Year ended 31/12/2017	
	Solvency II	Irish GAAP	Solvency II	Irish GAAP
	€'000	€'000	€'000	€'000
Gross Best Estimate Liability	3,911		5,765	
Risk Margin	976		334	
Technical Provisions (Gross of Reinsurance)	4,887	22,696	6,099	15,815
Reinsurer's Share of Technical Provisions	(4,858)	(20,609)	(3,582)	(14,390)
Net Technical Provisions	29	2,087	2,517	1,425

D.2.2 Calculation Methodology

Under Solvency II an economic balance sheet is required – which requires a market valuation of technical provisions. The overarching principle for valuing technical provisions under Solvency II is the current amount undertakings would have to pay if they were to transfer their (re)insurance obligations immediately to another undertaking.

The starting point for valuing the Company's Technical Provisions (TPs) is the Company's Irish GAAP basis reserves for loss and allocated loss adjustment expenses (Loss Reserves). Cash flows associated with those Loss Reserves, along with unearned premium reserves and provisions for other components of economic basis TPs, are calculated for each homogenous risk group using the approach outlined below.

(a) Best Estimate Liability

The best estimate liability ("BEL") is calculated from the cashflows in respect of the claims provisions and premium provisions. The best estimate liability represents the present value of future cashflows. The present value is calculated based on the timing of cashflows and on yield curves provided by EIOPA. The best estimate liability is determined on a gross, ceded and net basis for both the claims provisions and the premium provisions.

(b) Premium Receivable

Premium receivable in respect of the portion of the GAAP premium receivable not yet due on the valuation date is included in the premium provisions cashflows. A consistent approach is applied to calculation of ceded premium payable.

(c) Premium in respect of Bound Business

The Company's technical provision calculation allow for (i) business that is bound and incepted and (ii) business that is bound but not yet incepted ("BBNI") at the valuation date.

The premium provisions include the future premium cashflows in respect of the bound and incepted business and the BBNI business up to the relevant contract boundary.

(d) Future loss and allocated loss adjustment expense

Future loss and allocated loss adjustment expense cashflows are projected in respect of the GAAP Loss Reserves in order to calculate claims provisions. The Company does not consider that there are any implicit or explicit margins in the GAAP Loss Reserves.

Future loss and allocated loss adjustment expense cashflows are projected in respect of the GAAP unearned premium reserves and BBNI premium in order to calculate premium provisions. The projection uses business planning assumptions in respect of future loss ratios on unearned premium reserves and not yet incepted business.

(e) ENIDs

The Solvency II technical provisions must allow for events not in data ("ENIDs"). An ENID loading has been derived by the Company using a truncated distribution approach and is applied to future claim cashflows in both the claims provisions and premium provisions.

(f) Expenses

Acquisition costs directly attributable to the future premium receivable are determined based on the terms of the contracts which generate the premium receivable.

In addition, an allowance for unallocated loss adjustment expenses, administrative expenses and investment management expenses associated with the settlement of the best estimate liabilities is included in the technical provisions.

(g) Impact of Reinsurance

The Company's reinsurance program consists of proportional reinsurance cover only. Fixed percentage ceding acquisition expenses apply to the proportional reinsurance cover. In general, ceded cashflows are derived proportionally from gross cashflows. Exceptions to this approach are (i) ceded acquisition costs which are derived from the product of ceded premiums and the ceded acquisition expense percentage, and (ii) GAAP ceded balances receivable / payable which are analysed by their settlement terms to determine the portion of balance not yet due for settlement and which should be included in ceded technical provisions.

The timings of gross claim payments and corresponding recoveries are not markedly different. A simplification is applied by assuming that the timings correspond and ceded claim projections use the timing of direct claim payments.

(h) Adjustment for counterparty default

An adjustment for counterparty default is applied to the ceded technical provisions. The adjustment for counterparty default uses the Probability of Default ("PD") consistent with the Credit Quality Steps specified in EIOPA guidance in respect of the AM Best financial strength rating for reinsurance counterparties.

(i) Risk Margin

The Risk Margin is calculated based on Method 1 from Guideline 61 in Guidelines on the valuation of technical provisions (EIOPA-BoS-14-166). This method approximates the individual risks/sub risks within some or all modules and sub-modules used for the calculation of future SCR values. A 6% cost of capital is applied to all SCR estimates through time to estimate the cost of capital to support the liabilities. The resulting series of costs of capital requirements

are present valued to the valuation date using the yield curve for the reporting currency of the Company with a 1-year lag per the EIOPA guidance material.

D.2.3 Material Changes since Last Reporting Period

In the prior reporting period, the Company calculated the Risk Margin based on Method 2 from the EIOPA Guidelines (EIOPA-BoS-14-166). Method 2 projects future SCR values based on the assumption that the SCR to Net BEL ratio is constant through time. A ratio of SCR to Net BEL is determined as of the valuation date. This ratio is applied to future BEL estimates at each 1-year interval until liabilities are fully runoff to estimate future SCR requirements. Method 2 is the Company's preferred approach to calculating the Risk Margin. However, Method 2 is an invalid calculation method when the Net BEL is negative at the valuation date. When Method 2 approach is an invalid calculation method, the Company adopts one of the alternative methods stated in the EIOPA Guidelines (EIOPA-BoS-14-166). In this reporting period, the Company adopted Method 1.

D.2.4 Level of Uncertainty

Uncertainty in the technical provisions arises from a number of sources:

- The estimates for outstanding losses are based on known information at the balance sheet date. Ultimate settlement of these claims may differ from these estimates;
- The estimates for future losses on both expired and unexpired business are based on actuarial assumptions reflecting past performance and anticipated future changes. These assumptions may ultimately prove to differ from actual experience;
- The estimates of future premium from bound and incepted business and BBNI business are based on known information at the balance sheet date and actuarial assumptions reflecting past performance and anticipated future changes. Ultimate premiums received may differ from these estimates;
- The estimates for expenses are based on reasonable judgement reflecting past experience of expenses and on assumptions as to the run-off period. Either of these factors may differ from ultimate experience;
- Events not in data are, by their nature unpredictable and any allowance made could prove to be over-prudent or insufficient;
- The following attributes of the Company's insured business mean there is a significant degree of variability in respect of ultimate loss outcome:
 - The long cover period of each insured risk;
 - The very long cycle of risk, with economic cycles running ten years or longer;
 - The extent which changes in government policies (economic, financial, fiscal, regulatory and consumer protection) may have an impact.

Stress testing was performed on the Solvency II Technical Provisions as at 31 December 2018 in order to give an indication of sensitivity in respect of loss ratio assumptions. The following table shows the impact on technical provisions from an increase in the ultimate gross loss ratio in respect of loss and allocated loss adjustment expenses by 20% from 44% to 64%:

As at 31 December 2018	Company Held	Stress Case	Variance
	€'000	€'000	€'000
Gross Technical Provisions	4,887	14,733	9,846
Net Technical Provisions	29	1,917	1,888

The results of the stress testing on the technical provisions shown in the table above should be considered in the context of the Company's solvency profile as outlined in Section E below.

D.2.5 Material Differences between Irish GAAP and Solvency II

Whilst some of the approaches and techniques applied under Solvency II are similar to those followed under the existing Irish GAAP rules, there are other rules where there will be significant changes. These include:

- Movement to a cash flow basis for valuation of both gross business and reinsurance;
- Removal of any implicit or explicit margins within technical provisions to give a “true best estimate” for solvency purposes, defined as the mean of the full range of possible future outcomes;
- Introduction of the valuation of very low probability extreme events including latent claims, referred to as an allowance for “events not in data” or ENIDs;
- Removal of the requirements to hold an unearned premium reserve and to allow for other non-monetary items. These are replaced by “premium provisions”, valued on a best estimate basis. This also includes a requirement to take account of all future premium cash inflows;
- Movement to recognising contracts on a “legal obligation basis”. This will mean the inclusion of business currently not valued as part of the Irish GAAP valuation;
- Introduction of discounting of cash flows;
- Introduction of the principle of a market consistent basis and calculation of a “risk margin”; and
- Valuation of liabilities segmented by at least Solvency II lines of business.

D.2.6 Other Comments

The Company does not apply the matching adjustment referred to in Article 77 b of Directive 2009/138/EC, the volatility adjustment referred to in Article 77 d of Directive 2009/138/EC, the transitional adjustment to the risk-free interest rate term structure referred to in Article 308 c of Directive 2009/138/EC, or the transitional deduction referred to in Article 308 d of Directive 2009/138/EC.

D.2.7 Irish GAAP to Solvency II Comparison

The table below sets out the movement analysis between Irish GAAP and Solvency II for the Company as at 31 December 2018 and as at 31 December 2017:

Technical Provisions Irish GAAP basis and Solvency II basis	Year ended 31/12/2018			Year ended 31/12/2017		
	Gross	Ceded	Net	Gross	Ceded	Net
	€'000	€'000	€'000	€'000	€'000	€'000
Best Estimate Claims Provisions	2,776	(2,296)	480	805	(598)	207
Best Estimate Premium Provisions	1,135	(2,563)	(1,427)	4,960	(2,984)	1,975
Best Estimate Liability	3,911	(4,858)	(947)	5,765	(3,582)	2,183
Risk Margin	976	-	976	334	-	334
Technical Provisions	4,887	(4,858)	29	6,099	(3,582)	2,517

GAAP Reserves (Losses and ALAE)	2,454	(2,233)	221	634	(581)	52
Allowance for ENID	61	(56)	6	16	(15)	1
Change of Expense Basis	252	-	252	153	-	153
Adjustment for Counterparty Default	-	0	0	-	0	0
Discounting Impact	9	(7)	2	3	(2)	1
Solvency II Claims Provisions	2,776	(2,296)	480	805	(598)	207

GAAP Reserves (Unearned Premium)	20,242	(18,376)	1,866	15,181	(13,809)	1,372
Remove Unearned Premium Reserve	(20,242)	18,376	(1,866)	(15,181)	13,809	(1,372)
Future Premium	(18,269)	18,993	724	(1,834)	2,765	930
Future Acquisition Costs	33	(5,698)	(5,665)	42	(829)	(788)
Future Losses and ALAE	17,270	(15,543)	1,727	5,403	(4,863)	540
Allowance for ENID	432	(389)	43	135	(122)	14
Change of Expense Basis	1,770	-	1,770	1,302	-	1,302
Adjustment for Counterparty Default	-	2	2	-	1	1
Discounting Impact	(100)	71	(28)	(87)	64	(24)
Solvency II Premium Provisions	1,135	(2,563)	(1,427)	4,960	(2,984)	1,975

D.3 Other liabilities

The table below sets out the value of the liabilities of the Company as at 31 December 2018 and as at 31 December 2017 under Solvency II and Irish GAAP.

Liabilities	Year ended 31/12/2018		Year ended 31/12/2017	
	Solvency II	Irish GAAP	Solvency II	Irish GAAP
	€'000	€'000	€'000	€'000
Deferred Tax Liability	501	0	0	0
Deferred Ceding Commission	0	5,513	0	4,143
Reinsurance payables	7,861	10,122	6,915	8,288
Other liabilities and non-insurance payables	968	968	595	595
Technical Provisions	4,887	22,696	6,099	15,815
Total liabilities	14,217	39,299	13,609	28,841

The following are the bases, methods and main assumptions used for valuation of each material class of other liabilities for Solvency II purpose.

D.3.1 Deferred ceded acquisition costs

In the financial statements, ceded acquisition costs which represent commission and other related expenses are deferred over the year in which the related reinsurers' share of premiums are earned. To the extent that ceded acquisition costs are deferred and considered irrecoverable against the related reinsurers' share of unearned premiums, they are written off to net operating expenses as incurred.

Solvency II balance sheet is prepared based on the best estimate of future cash flow basis. Therefore, deferred ceded acquisition costs are being excluded from the Solvency II balance sheet.

D.3.2 Reinsurance payables

Reinsurance payables balance represents amounts to reinsurers in respect of ceded premiums. Reinsurance payables are valued at fair value and due to the short-term nature of the payables no adjustments to valuation are required. The valuation of reinsurance payables is consistent with the accounting valuation under Irish GAAP except that the share of insurance and intermediaries balances which are not yet due at the valuation date are deducted from the balance and included in the technical provisions cashflow.

D.3.3 Other liabilities and non-insurance payables

Other liabilities and non-insurance payables have been valued using the alternative valuation method in accordance with Solvency II. The Directors have used the cost approach or current replacement cost approach, being the closest to the fair value of these liabilities.

The valuation of other liabilities and non-insurance payables is consistent with the accounting valuation under Irish GAAP.

D.4 Alternative methods for valuation

As previously stated, (i) other assets and non-insurance receivables and (ii) other liabilities and non-insurance payables have been valued using the alternative valuation method in accordance with Solvency II.

D.5 Any other information

The Company has a number of risk management policies in place that aim to protect the balance sheet against various risks. These include the investment risk policy and underwriting and reserving risk policy. Further information on the Company's risk management is provided in Section B above.

No other material information to report as of 31 December 2018.

SECTION E – CAPITAL MANAGEMENT

E.1 Own funds

E.1.1 Management of Own Funds

The Company has adopted a capital management policy setting out the methodology and procedures to provide oversight of the Company's own funds. The strategic objectives articulated in the capital management policy are (i) to ensure compliance with the Company's regulatory capital requirements, (ii) to manage and allocate capital efficiently to achieve sustainable returns and facilitate growth objectives as articulated in the Company's business plans; and (iii) to ensure access to capital markets on competitive terms, so that the Company's overall cost of capital is minimised. To achieve these objectives, the Company strives to maintain capital levels that are consistent with its risk appetite, corporate strategy and statutory minimum requirements, at both a point in time and on a forward looking basis. The Company's time horizon for business planning is one year, however the capital planning horizon spans three years.

The Company has adopted a capital management plan which is reviewed annually and sets out the methodology and procedures to provide oversight of the Company's own funds. The capital management plan articulates solvency capital thresholds, corrective actions to be taken if the thresholds are reached and potential sources of capital for the Company and their estimated timeframe of realisation.

High level roles and responsibilities in relation to capital management activities are outlined below.

- Board: Sole responsibility for approving the capital management policy and plan. Overall responsibility for monitoring capital management.
- Risk Committee: Reviews the capital management policy and plan and makes recommendations to the Board. Responsible for reviewing and monitoring the key capital management metrics and tolerances and presenting key capital management information to the Board on an ongoing basis.
- Audit Committee: Responsible for aligning the investment strategy with the capital management policy and plan, and ensuring an appropriate level of funds are available to meet the Company's obligations.
- Finance Function: Responsible for producing the reports necessary for appropriate monitoring that the capital management policy is being followed and monitoring execution of the capital management plan.
- Risk Management Function: Responsible for maintaining and developing the capital management policy and plan. Responsible for maintaining the SCR and MCR calculations.

In the event that the ongoing monitoring indicates that Company's capital position is outside of risk appetite, corrective actions shall, as deemed appropriate, be taken. Proposed corrective actions shall be initiated by the Finance Function, after receiving approval from the Board on the appropriate corrective action to be taken.

The Company has identified management actions which would provide capital relief if required:

- Restricting line sizes / product redesign / repricing
- Discontinue / Run off certain lines of business

Estimated timeframe for realization of relief from the management actions is six months.

Other potential sources of capital which the Company has identified are:

- Additional capital sourced from Group through contributed capital, capital loan or additional reinsurance arrangements.
- Capital sourced from outside parties, e.g. merger, private equity.

Estimated timeframe for realization of relief from the potential sources of capital from the Group is 1 month. Estimated timeframe for realization of relief from outside parties is three months to one year.

There have been no material changes to capital management during 2018.

E.1.2 Classification of Own Funds

The following table shows the Company's Own Funds by Tier at 31 December 2018 and 31 December 2017:

Own Funds		Year ended 31/12/2018	Year ended 31/12/2017
<i>Tier</i>	<i>Composition</i>	€'000	€'000
Tier 1	Ordinary Share Capital	65,000	65,000
Tier 1	Reconciliation Reserve	(1,349)	(5,790)
Tier 1 subtotal before Deduction		63,651	59,210
Tier 1 Deduction (Capital Contribution)		(2,252)	(2,252)
Tier 1 Total		61,399	56,958
Tier 2 Total		0	0
Tier 3 Total	Deferred Tax Asset	0	135
Total eligible own funds to meet the SCR		61,399	57,093
Total eligible own funds to meet the MCR		61,399	56,958

A capital contribution of €2.3m arose in conjunction with the remittance of the paid-in ordinary share capital to the Company, on establishment. The remittance amount transferred was in US dollars and when the transfer occurred the Euro amount was in excess of the paid-in ordinary share capital amount. The Company has classified the capital contribution as non-available and non-eligible for own funds under Solvency II.

E.1.3 Terms and Conditions of Own Funds

Apart for the capital contribution, there is no restriction on the availability or the eligibility or transferability of the own funds.

E.1.4 Differences in Own Funds between Financial Statements and Solvency II Valuation

The difference between the equity shown in the Company's financial statements and the Solvency II eligible own funds arises due to (i) the valuation of technical provisions, (ii) the inclusion of a portion of the GAAP balances/receivables in the technical provisions, (iii) the ineligibility of the deferred acquisition costs, (iv) the adjustment to the deferred tax net asset and (v) the removal of the non-eligible own funds.

Differences in Own Funds between Financial Statements and Solvency II Valuation	Year ended 31/12/2018 €'000	Year ended 31/12/2017 €'000
Financial Statement Shareholders' Funds	56,372	56,803
<i>Adjustments for Solvency II:</i>		
Difference in valuation of net Technical Provisions	2,058	(1,092)
Balances / Receivables included in Technical Provisions	1,534	473
Removal of net Deferred Acquisition Costs	4,727	3,524
Adjustment to deferred tax net asset	(1,040)	(363)
Excess of Assets over Liabilities	63,651	59,345
Solvency II Non-Eligible Own Funds	(2,252)	(2,252)
Total eligible own funds to meet the SCR	61,399	57,093

Eligible own funds are €61.4m as at 31 December 2018 and are €57.1m as at 31 December 2017. The main reason for the increase in eligible own funds during the reporting period is due an increase in expected profit in future premium of €4.2m from €0.2m at 31 December 2017 to €4.4m at 31 December 2018 which arose from new business written during the reporting period.

E.2 Solvency Capital Requirement and Minimum Capital Requirement

E.2.1 Calculation of SCR and MCR

In respect of the calculation of the SCR and MCR:

- The Company uses the Standard Formula.
- Undertaking specific parameters are not used.
- No capital add-ons are applied to the SCR figures.
- The simplifications outlined in Articles 107, 108, 110, 111 and 112 Commission Delegated Regulation (EU) 2015/35 apply to the Counterparty default risk sub-module.
- No simplifications have been used in the other risk sub-modules.

The SCR is €18.2m as at 31 December 2018 and is €16.9m as at 31 December 2017. A breakdown of SCR by risk category is set out in the following table:

SCR by Risk Category	Year ended 31/12/2018	Year ended 31/12/2017
	€'000	€'000
Market risk	19,623	18,761
Counterparty default risk	246	189
Non-life underwriting risk	2,686	991
Diversification	(2,018)	(856)
Basic Solvency Capital Requirement	20,537	19,086
Operational Risk	217	173
Loss-absorbing capacity of deferred taxes	(2,594)	(2,407)
Solvency Capital Requirement	18,160	16,851

The MCR is €4.5m as at 31 December 2018 and is €4.2m as at 31 December 2017. The following table shows the inputs used to calculate the MCR:

Inputs for MCR	Year ended 31/12/2018		Year ended 31/12/2017	
	Net of Reinsurance Best Estimate	Net of Reinsurance written premiums in last 12 months	Net of Reinsurance Best Estimate	Net of Reinsurance written premiums in last 12 months
	€'000	€'000	€'000	€'000
<i>Line of Business</i>				
Credit and Suretyship	0	963	2,183	840
Linear MCR	109		481	
SCR	18,160		16,851	
Combined MCR	4,540		4,213	
Absolute Floor of the MCR	3,700		3,700	
Minimum Capital Requirement	4,540		4,213	

There has been a moderate increase in the Company's SCR and MCR during 2018. This is mainly due to an increase in non-life underwriting risk and an increase in market risk.

Non-life underwriting risk is higher mainly due to higher premium volumes.

Market risk is higher mainly due to a higher market value of the investment portfolio at 31 December 2018 relative to 31 December 2017.

E.2.2 SCR ratio and MCR ratio

The ratio of eligible own funds to SCR is 338% and the ratio of eligible own funds to MCR is 1,352% as at 31 December 2018. The ratio of eligible own funds to SCR is 339% and the ratio of eligible own funds to MCR is 1,352% as at 31 December 2017.

SCR ratio and MCR ratio	Year ended 31/12/2018	Year ended 31/12/2017
	€'000	€'000
Total eligible own funds to meet the SCR	61,399	57,093
Total eligible own funds to meet the MCR	61,399	56,958
SCR	18,160	16,851
MCR	4,540	4,213
Ratio of eligible own funds to SCR	338%	339%
Ratio of eligible own funds to MCR	1352%	1352%

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

The duration-based equity risk sub-module is not used in the calculation of the SCR.

E.4 Differences between the standard formula and any internal model used

Not applicable.

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

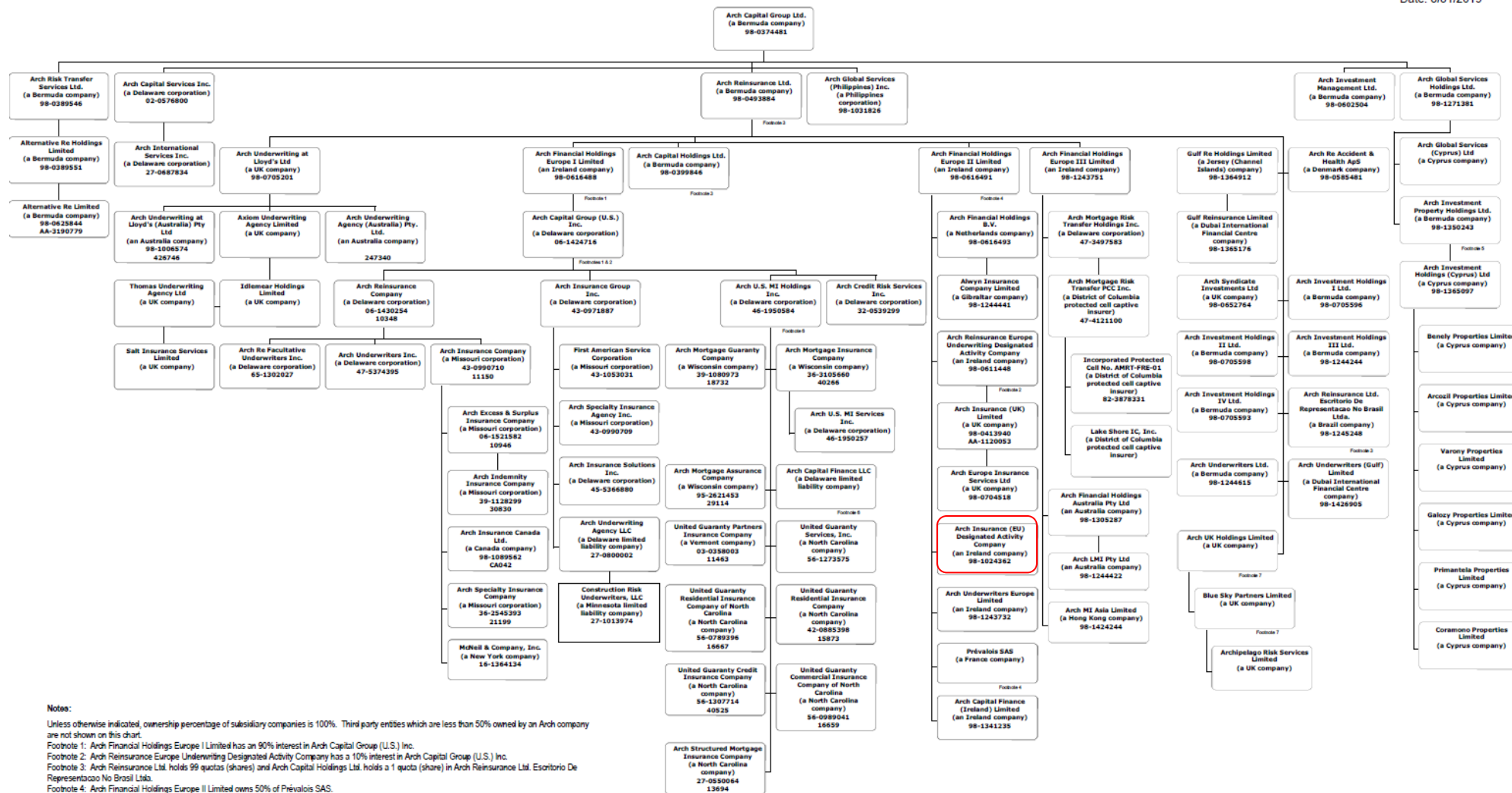
The Company complies with the Solvency Capital Requirement and Minimum Capital Requirement during 2018.

E.6 Any other information

No other material information to report as of 31 December 2018.

ARCH CAPITAL GROUP LTD. ORGANIZATION CHART

Date: 3/31/2019

**Notes:**

Unless otherwise indicated, ownership percentage of subsidiary companies is 100%. Third party entities which are less than 50% owned by an Arch company are not shown on this chart.

Footnote 1: Arch Financial Holdings Europe I Limited has an 90% interest in Arch Capital Group (U.S.) Inc.

Footnote 2: Arch Reinsurance Europe Underwriting Designated Activity Company has a 10% interest in Arch Capital Group (U.S.) Inc.

Footnote 3: Arch Reinsurance Ltd. holds 99 quotas (shares) and Arch Capital Holdings Ltd. holds a 1 quota (share) in Arch Reinsurance Ltd. Escriorio De Representacao No Brasil Ltd.

Footnote 4: Arch Financial Holdings Europe II Limited owns 50% of Prévalois SAS.

Footnote 5: Arch Global Services Holdings Ltd. has a 94.06% interest in Arch Investment Property Holdings Ltd. The remaining 5.94% non-controlling interest is held by a third party investor.

Footnote 6: Arch U.S. MI Holdings Inc. is the sole member of Arch Capital Finance LLC.

Footnote 7: Arch UK Holdings Limited owns 75% of Blue Sky Partners Limited.

Key: For each entity, the company name (jurisdiction), FEIN # (where applicable) and NAIC # (or equivalent number if applicable) are listed.

APPENDIX 2 – QUANTITATIVE REPORTING TEMPLATES

S.02.01.02 Balance Sheet

	Solvency II value
	C0010
Assets	
Intangible assets	R0030
Deferred tax assets	R0040
Pension benefit surplus	R0050
Property, plant & equipment held for own use	R0060 555
Investments (other than assets held for index-linked and unit-linked contracts)	R0070 71,789,643
Property (other than for own use)	R0080
Holdings in related undertakings, including participations	R0090
Equities	R0100
Equities - listed	R0110
Equities - unlisted	R0120
Bonds	R0130 71,517,580
Government Bonds	R0140 22,016,243
Corporate Bonds	R0150 37,778,201
Structured notes	R0160
Collateralised securities	R0170 11,723,136
Collective Investments Undertakings	R0180 272,063
Derivatives	R0190
Deposits other than cash equivalents	R0200
Other investments	R0210
Assets held for index-linked and unit-linked contracts	R0220
Loans and mortgages	R0230
Loans on policies	R0240
Loans and mortgages to individuals	R0250
Other loans and mortgages	R0260
Reinsurance recoverables from:	R0270 4,858,364
Non-life and health similar to non-life	R0280 4,858,364
Non-life excluding health	R0290 4,858,364
Health similar to non-life	R0300
Life and health similar to life, excluding health and index-linked and unit-linked	R0310
Health similar to life	R0320
Life excluding health and index-linked and unit-linked	R0330
Life index-linked and unit-linked	R0340
Deposits to cedants	R0350
Insurance and intermediaries receivables	R0360 504
Reinsurance receivables	R0370
Receivables (trade, not insurance)	R0380
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 1,144,703
Any other assets, not elsewhere shown	R0420 75,515
Total assets	R0500 77,869,284

	Solvency II value
	C0010
Liabilities	
Technical provisions – non-life	R0510 4,887,076
Technical provisions – non-life (excluding health)	R0520 4,887,076
TP calculated as a whole	R0530
Best Estimate	R0540 3,911,153
Risk margin	R0550 975,923
Technical provisions - health (similar to non-life)	R0560
TP calculated as a whole	R0570
Best Estimate	R0580
Risk margin	R0590
Technical provisions - life (excluding index-linked and unit-linked)	R0600
Technical provisions - health (similar to life)	R0610
TP calculated as a whole	R0620
Best Estimate	R0630
Risk margin	R0640
Technical provisions – life (excluding health and index-linked and unit-linked)	R0650
TP calculated as a whole	R0660
Best Estimate	R0670
Risk margin	R0680
Technical provisions – index-linked and unit-linked	R0690
TP calculated as a whole	R0700
Best Estimate	R0710
Risk margin	R0720
Contingent liabilities	R0740
Provisions other than technical provisions	R0750
Pension benefit obligations	R0760
Deposits from reinsurers	R0770
Deferred tax liabilities	R0780 500,865
Derivatives	R0790
Debts owed to credit institutions	R0800
Financial liabilities other than debts owed to credit institutions	R0810
Insurance & intermediaries payables	R0820
Reinsurance payables	R0830 7,861,462
Payables (trade, not insurance)	R0840 968,428
Subordinated liabilities	R0850
Subordinated liabilities not in BOF	R0860
Subordinated liabilities in BOF	R0870
Any other liabilities, not elsewhere shown	R0880
Total liabilities	R0900 14,217,831
Excess of assets over liabilities	R1000 63,651,453

S.05.01.02 Premiums, claims and expenses by line of business

		Line of Business for: non-life insurance and reinsurance obligations (direct business and accepted proportional reinsurance)	Total
		Credit and suretyship insurance	
		C0090	
			C0200
Premiums written			
Gross - Direct Business	R0110	9,628,210	9,628,210
Gross - Proportional reinsurance accepted	R0120		
Gross - Non-proportional reinsurance accepted	R0130		
Reinsurers' share	R0140	8,665,389	8,665,389
Net	R0200	962,821	962,821
Premiums earned			
Gross - Direct Business	R0210	4,567,098	4,567,098
Gross - Proportional reinsurance accepted	R0220		
Gross - Non-proportional reinsurance accepted	R0230		
Reinsurers' share	R0240	4,098,497	4,098,497
Net	R0300	468,601	468,601
Claims incurred			
Gross - Direct Business	R0310	1,835,381	1,835,381
Gross - Proportional reinsurance accepted	R0320		
Gross - Non-proportional reinsurance accepted	R0330		
Reinsurers' share	R0340	1,651,843	1,651,843
Net	R0400	183,538	183,538
Changes in other technical provisions			
Gross - Direct Business	R0410	0	0
Gross - Proportional reinsurance accepted	R0420		
Gross - Non- proportional reinsurance accepted	R0430		
Reinsurers'share	R0440		
Net	R0500	0	0
Expenses incurred	R0550	5,121,139	5,121,139
Other expenses	R1200		0
Total expenses	R1300		5,121,139

S.05.02.01 Premiums, claims and expenses by country

		Home Country	Top 5 countries (by amount of gross premiums written) - non-life obligations					Total Top 5 and home country
		C0010	C0020	C0030	C0040	C0050	C0060	C0070
	R0010		FI	SK	DE	GB	IT	
		C0080	C0090	C0100	C0110	C0120	C0130	C0140
Premiums written								
Gross - Direct Business	R0110		3,744,744	2,844,739	2,170,058	504,354	364,315	9,628,210
Gross - Proportional reinsurance accepted	R0120							
Gross - Non-proportional reinsurance accepted	R0130							
Reinsurers' share	R0140		3,370,270	2,560,265	1,953,052	453,918	327,884	8,665,389
Net	R0200		374,474	284,474	217,006	50,436	36,431	962,821
Premiums earned								
Gross - Direct Business	R0210		1,436,738	1,264,650	1,314,576	444,360	106,774	4,567,098
Gross - Proportional reinsurance accepted	R0220							
Gross - Non-proportional reinsurance accepted	R0230							
Reinsurers' share	R0240		1,289,323	1,134,892	1,179,696	398,767	95,819	4,098,497
Net	R0300		147,415	129,758	134,880	45,593	10,955	468,601
Claims incurred								
Gross - Direct Business	R0310		429,774	487,909	786,464	113,259	17,976	1,835,381
Gross - Proportional reinsurance accepted	R0320							
Gross - Non-proportional reinsurance accepted	R0330							
Reinsurers' share	R0340		386,797	439,118	707,817	101,933	16,178	1,651,843
Net	R0400		42,977	48,791	78,647	11,326	1,798	183,538
Changes in other technical provisions								
Gross - Direct Business	R0410		0	0	0	0	0	0
Gross - Proportional reinsurance accepted	R0420							
Gross - Non- proportional reinsurance accepted	R0430							
Reinsurers'share	R0440							
Net	R0500		0	0	0	0	0	0
Expenses incurred	R0550		1,571,331	1,509,222	1,437,725	486,085	116,776	5,121,139
Other expenses	R1200							0
Total expenses	R1300							5,121,139

S.17.01.02 Non-life technical provisions

Technical provisions calculated as a whole

Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default associated to TP as a whole

Technical provisions calculated as a sum of BE and RM

Best estimate

Premium provisions

Gross

Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default

Net Best Estimate of Premium Provisions

Claims provisions

Gross

Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default

Net Best Estimate of Claims Provisions

Total Best estimate - gross

Total Best estimate - net

Risk margin

Amount of the transitional on Technical Provisions

Technical Provisions calculated as a whole

Best estimate

Risk margin

Technical provisions - total

Technical provisions - total

Recoverable from reinsurance contract/SPV and Finite Re after the adjustment for expected losses due to counterparty default - total

Technical provisions minus recoverables from reinsurance/SPV and Finite Re - total

	Direct business and accepted proportional reinsurance	Total Non-Life obligation
	Credit and suretyship insurance	
	C0100	C0180
R0010		
R0050		
R0060	1,135,468	1,135,468
R0140	2,562,558	2,562,558
R0150	-1,427,091	-1,427,091
R0160	2,775,685	2,775,685
R0240	2,295,805	2,295,805
R0250	479,880	479,880
R0260	3,911,153	3,911,153
R0270	-947,211	-947,211
R0280	975,923	975,923
R0290		
R0300		
R0310		
R0320	4,887,076	4,887,076
R0330	4,858,364	4,858,364
R0340	28,712	28,712

S.19.01.21 Non-life insurance claims information

Total Non-Life Business

Accident year / Underwriting year	Z0010	2
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Gross Claims Paid (non-cumulative) (absolute amount)

		Development year												
Year		0	1	2	3	4	5	6	7	8	9	10 & +	In Current year	Sum of years (cumulative)
		C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0090	C0100	C0110	C0170	C0180
Prior	R0100												R0100	
N-9	R0160												R0160	
N-8	R0170												R0170	
N-7	R0180												R0180	
N-6	R0190												R0190	
N-5	R0200												R0200	
N-4	R0210												R0210	
N-3	R0220												R0220	
N-2	R0230												R0230	
N-1	R0240												R0240	
N	R0250												R0250	
Total													R0260	

Gross undiscounted Best Estimate Claims Provisions (absolute amount)

		Development year											Year end (discounted data)	
Year		0	1	2	3	4	5	6	7	8	9	10 & +	C0360	
		C0200	C0210	C0220	C0230	C0240	C0250	C0260	C0270	C0280	C0290	C0300		
Prior	R0100												R0100	
N-9	R0160												R0160	
N-8	R0170												R0170	
N-7	R0180												R0180	
N-6	R0190					6,524	2,765	2,650					R0190	2,656
N-5	R0200				50,200	21,188	21,124						R0200	21,160
N-4	R0210			33,780	47,861	58,166							R0210	58,032
N-3	R0220		140,138	270,547	397,672								R0220	397,919
N-2	R0230	81,096	363,999	847,912									R0230	850,113
N-1	R0240	95,684	472,311										R0240	474,093
N	R0250	967,055											R0250	971,711
Total													R0260	2,775,685

S.23.01.01 Own funds

Basic own funds before deduction for participations in other financial sector as foreseen in article 68 of Delegated Regulation (EU) 2015/35

Ordinary share capital (gross of own shares)
Share premium account related to ordinary share capital
Initial funds, members' contributions or the equivalent basic own - fund item for mutual and mutual-type undertakings
Subordinated mutual member accounts
Surplus funds
Preference shares
Share premium account related to preference shares
Reconciliation reserve
Subordinated liabilities
An amount equal to the value of net deferred tax assets
Other own fund items approved by the supervisory authority as basic own funds not

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

Deductions

Deductions for participations in financial and credit institutions

Total basic own funds after deductions

Ancillary own funds

Unpaid and uncalled ordinary share capital callable on demand
Unpaid and uncalled initial funds, members' contributions or the equivalent basic own fund item for mutual and mutual - type undertakings, callable on demand
Unpaid and uncalled preference shares callable on demand
A legally binding commitment to subscribe and pay for subordinated liabilities on demand
Letters of credit and guarantees under Article 96(2) of the Directive 2009/138/EC
Letters of credit and guarantees other than under Article 96(2) of the Directive 2009/138/EC
Supplementary members calls under first subparagraph of Article 96(3) of the Directive
Supplementary members calls - other than under first subparagraph of Article 96(3) of the Directive 2009/138/EC
Other ancillary own funds

Total ancillary own funds

Available and eligible own funds

Total available own funds to meet the SCR
Total available own funds to meet the MCR
Total eligible own funds to meet the SCR
Total eligible own funds to meet the MCR

SCR

MCR

Ratio of Eligible own funds to SCR

Ratio of Eligible own funds to MCR

	Total	Tier 1 - unrestricted	Tier 1 - restricted	Tier 2	Tier 3
	C0010	C0020	C0030	C0040	C0050
R0010	65,000,000	65,000,000			
R0030					
R0040					
R0050					
R0070					
R0090					
R0110					
R0130	-1,348,547	-1,348,547			
R0140					
R0160					
R0180					
R0220	2,252,008				
R0230					
R0290	61,399,445	61,399,445			
R0300					
R0310					
R0320					
R0330					
R0340					
R0350					
R0360					
R0370					
R0390					
R0400					
R0500	61,399,445	61,399,445			
R0510	61,399,445	61,399,445			
R0540	61,399,445	61,399,445			
R0550	61,399,445	61,399,445			
R0580	18,159,699				
R0600	4,539,925				
R0620	3,3811				
R0640	13.5243				

Reconciliation reserve

Excess of assets over liabilities
Own shares (held directly and indirectly)
Foreseeable dividends, distributions and charges
Other basic own fund items
Adjustment for restricted own fund items in respect of matching adjustment portfolios and ring fenced funds

Reconciliation reserve

Expected profits

Expected profits included in future premiums (EPIFP) - Life business
Expected profits included in future premiums (EPIFP) - Non- life business

Total Expected profits included in future premiums (EPIFP)

	C0060
R0700	63,651,453
R0710	
R0720	
R0730	65,000,000
R0740	
R0760	-1,348,547
R0770	
R0780	4,377,921
R0790	4,377,921

S.25.01.21 Solvency capital requirement – for undertakings on Standard Formula

Market risk
Counterparty default risk
Life underwriting risk
Health underwriting risk
Non-life underwriting risk
Diversification
Intangible asset risk
Basic Solvency Capital Requirement

Calculation of Solvency Capital Requirement

Operational risk
Loss-absorbing capacity of technical provisions
Loss-absorbing capacity of deferred taxes
Capital requirement for business operated in accordance with Art. 4 of Directive 2003/41/EC
Solvency capital requirement excluding capital add-on
Capital add-on already set

Solvency capital requirement

Other information on SCR

Capital requirement for duration-based equity risk sub-module
Total amount of Notional Solvency Capital Requirement for remaining part
Total amount of Notional Solvency Capital Requirements for ring fenced funds
Total amount of Notional Solvency Capital Requirement for matching adjustment portfolios
Diversification effects due to RFF nSCR aggregation for article 304

	Gross solvency capital requirement	USP	Simplifications
	C0110	C0090	C0100
R0010	19,623,129		
R0020	245,601		
R0030	0		
R0040	0		
R0050	2,685,678		
R0060	-2,017,602		
R0070	0		
R0100	20,536,806		

	C0100
R0130	217,136
R0140	
R0150	-2,594,243
R0160	
R0200	18,159,699
R0210	
R0220	18,159,699
R0400	
R0410	
R0420	
R0430	
R0440	

S.28.01.01 Minimum capital requirement – only life or only non-life or reinsurance activity

Linear formula component for non-life insurance and reinsurance obligations

	C0010
MCR _{NL} Result	R0010 108,799

	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 0	962,821
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
MCR _L Result	R0200 0

	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	
Obligations with profit participation - future discretionary benefits	R0220	
Index-linked and unit-linked insurance obligations	R0230	
Other life (re)insurance and health (re)insurance obligations	R0240	
Total capital at risk for all life (re)insurance obligations	R0250	

Overall MCR calculation

	C0070
Linear MCR	R0300 108,799
SCR	R0310 18,159,699
MCR cap	R0320 8,171,865
MCR floor	R0330 4,539,925
Combined MCR	R0340 4,539,925
Absolute floor of the MCR	R0350 3,700,000
	C0070
Minimum Capital Requirement	R0400 4,539,925