Arch Insurance (UK) Limited

Solvency and Financial Condition Report

31 December 2021

Arch Insurance (UK) Limited
6 April 2022

SOLVENCY AND FINANCIAL CONDITION REPORT

Table of Contents

SUMMARY

Arch Insurance (UK) Limited ("AIUK" or "the Company") sets out in this report the solvency and financial condition of the Company as at 31 December 2021, as required by Solvency II Regulations and the Solvency II Directive (as implemented in the UK in the Prudential Regulation Authority ("PRA") rulebook for Solvency II firms). The purpose of the Solvency and Financial Condition Report ("SFCR") is to provide stakeholders with additional information over and above that contained in the annual financial statements, which are available from Companies House.

This SFCR for AIUK is for the year ended 31 December 2021 and all amounts are presented in thousands of Sterling (£'000).

The SFCR contains qualitative and quantitative information on AIUK business and performance, its system of governance, risk profile, valuation for solvency purposes and capital management.

AIUK is a UK authorised insurer and part of the Arch Group of companies. AIUK is a wholly owned subsidiary of Arch ("ARE"), an Ireland-based company. The ultimate parent company of AIUK is Arch Capital Group Ltd. ("ACGL" or together with its subsidiaries, "ACGL Group" or the "Group"), a Bermuda public limited liability company. ACGL provides insurance, reinsurance and mortgage insurance on a worldwide basis through its operations in Bermuda, the United States of America, Europe, Canada, and Australia. ACGL is listed on the Nasdaq Stock Market.

The principal activity of the Company is to underwrite Energy, Property and Casualty insurance business, including but not limited to, Specialty lines of insurance. The Company operates from its head office in London and its UK regional offices. We classify our business into the following Solvency II lines of business: Medical Expense, Income Protection, Motor Vehicle Liability, Other Motor, General Liability, Credit and Suretyship, Marine, Aviation and Transport, Fire and other damage to Property insurance.

Business, Strategy and Performance

Our insurance underwriting strategy is to operate in lines of business in which our underwriting expertise can make a meaningful difference to operating results. Our insurance business focuses on talent-intensive rather than labour-intensive business and seeks to operate profitably across all of the product lines. This means that we underwrite predominantly in the London wholesale insurance markets and in regional markets, both directly and on a selective delegated underwriting authority basis. To achieve our objectives, our insurance operating principles are to:

- Capitalise on profitable underwriting opportunities;
- Centralise responsibility for underwriting;
- Maintain a disciplined underwriting philosophy;
- Focus on providing superior claims management; and
- Utilise a brokerage distribution system.

Our underwriting philosophy is to generate an underwriting profit through prudent risk selection and appropriate pricing across the underwriting cycle. To achieve this, we encourage adherence to uniform underwriting standards across each product line focusing on risk selection, desired attachment point; limits and retention management; due diligence, including financial condition, claims history, management and exposure; underwriting authority and approval limits; and collaborative decision-making.

The rating environment continued to improve during 2021, with firmer pricing for many lines of business including Property, Casualty and Energy whilst simultaneously the Novel Coronavirus ("COVID-19)" pandemic continued to develop, creating increased uncertainty in the markets. The Company's gross exposure to the COVID-19 pandemic on a UK GAAP basis was £34.6m, mainly driven by business interruption policies on the Company's regional book of business. As a result of the extensive reinsurance programme, the net exposure was limited to £21.4m pre-intercompany quota share. The exposure net of the intercompany quota share was £3.2m.

Reflecting the strengthened rating environment, the Company's underwriting strategy for 2021 was more offensive, actively seeking to increase the amount of business written in our regional and speciality lines of business and maximising the opportunities for growth. Notwithstanding the competitive environment, the Company has sought to maintain its underwriting discipline and execute its philosophy on superior risk selection.

The focus for 2021 has been the continued growth through expansion of profitable lines of business and the capital of the Company and Group remains available to support this. The Company continues to benefit from a financial strength rating of A2 from Moody's and A+ from Standard & Poor's, Fitch and A.M. Best.

System of Governance

There are no material changes in the Company's systems of governance during the year. 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 organisational 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 outsourced responsibilities are delegated and managed appropriately, with ultimate responsibility residing with the Board.

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 approved committees operating under the agreed set of terms of reference for each of the committees.

The principles and requirements of the system of governance, particularly risk management, internal control, compliance, internal audit, actuarial and outsourcing, are the responsibility of the Board. The Board Risk Committee oversees 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 Legal, Regulatory and Compliance Team, and all related findings and/or reports are presented to the Board.

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 organisation towards the desired level of risk. It not only supports the 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 business with selected insureds;
- Underwrite only carefully selected business lines;
- Manage underwriting volumes in line with the business cycle; and
- Limit the downside risk such that the Company maintains a sufficient solvency margin.

To meet these objectives and the Company's overall strategy, metrics for the performance against risk appetites and risk tolerances & limits, as articulated in the Company's Risk Appetite Statement, are monitored by the Risk Management function and reported on to the Risk Committee on a quarterly basis with a defined escalation process where breaches occur.

Valuation for Solvency II Purposes

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 that on an FRS 102 (UK GAAP) basis arise from:

- the valuation of technical provisions and reinsurer's share of technical provisions including the removal of an implicit margin of prudence;
- the valuation of holdings in related undertakings; and

- the valuation of deferred acquisition costs and deferred ceding commission.

No volatility or matching adjustments are included and therefore no transitional measures are used.

Capital Management

The Company has adopted a capital management policy and plan setting out the methodology and procedures to provide oversight of the Company's own funds and compliance with regulatory capital requirements.

The Company's own funds are summarised in the table below:

	Tier 1	Tier 2	Tier 3	2021 Total Own Funds	2021 Adjusted net asset Approach *	2020 Total Own Funds	2020 Adjusted net asset Approach *
	£'000	£'000	£'000	£'000	£'000	£'000	£'000
Paid-In Ordinary Share Capital	50,000	-	-	50,000	50,000	50,000	50,000
Other capital contribution	67,500	-	-	67,500	36,500	57,500	26,500
Reconciliation Reserve	(14,561)	-	-	(14,561)	(14,561)	(15,571)	(15,571)
Subordinated liabilities	-	15,500	-	15,500	15,500	15,500	15,500
Total Own Funds After Deductions	**102,939**	**15,500**	**-**	**118,439**	**87,439**	**107,429**	**76,429**
Total Eligible Own Funds to Meet the SCR				118,439	87,439	107,429	76,429
Total Eligible Own Funds to Meet the MCR				105,879	71,939	94,127	60,929
SCR				58,802	55,043	38,353	34,372
MCR				14,700	14,700	10,993	10,993
Ratio of Eligible Own Funds to SCR				**201.4%**	**158.9%**	**280.1%**	**222.4%**
Ratio of Eligible Own Funds to MCR				**720.2%**	**489.4%**	**856.2%**	**554.2%**

** The "adjusted net asset basis" is reviewed as part of the Company's internal governance processes, but is not independently audited.*

The Own funds consist of Tier 1 capital made up of £50.0 million issued and fully paid up ordinary shares, £67.5 million other capital contribution, and a loss of £14.6 million in the reconciliation reserve alongside Tier 2 subordinated loans of £15.5 million.

The Company had an existing capital contribution of £57.5 million and in 2021 the Company received £10.0 million capital contribution from its parent company, ARE, to support the business due to reserve implication arising out of the COVID-19 pandemic and planned growth, bringing the total contributions to £67.5 million. This capital is offset by a loss of £14.6 million in the reconciliation reserve under Solvency II. The Company holds two loans from Arch Capital Finance (Ireland) Limited ("ACFI"), a group company, to support growth from the new UK Regional business. This loan was included in the Tier 2 capital which totals £15.5 million. This loan meets the required PRA guidelines to classify as a subordinated loan. AIUK has no Tier 3 capital at 31 December 2021.

The Company uses the Standard Formula for determining its regulatory capital and follows a risk-based approach to determine the amount of capital required to support its activities. Following the acquisition of the UK regional business, an "adjusted net asset basis" was introduced and reported internally to manage the Company's solvency position, taking into account the Company's current capital structure. The "adjusted net asset basis" is an additional, internally applied, more prudent measure, that the Board uses to monitor solvency, and is not part of the requirement of Solvency II. It is reviewed as part of the Company's internal governance processes, but is unaudited.

Under the "adjusted net asset basis", the Company's own funds available are £87.4 million as at December 2021 against the SCR of £55.0 million, with a surplus of £32.4 million or 158.9%. The "adjusted net asset basis" excludes the loan balance with Arch Intermediaries Group Limited ("AIGL"), formerly known as Arch (UK) Holdings Limited, within the available own funds and the SCR excludes the equity invested as part of UK Regional acquisition.

COVID-19 pandemic

The global pandemic resulting from the novel coronavirus (including variants of the coronavirus such as Delta and Omicron, “COVID-19”) has disrupted the global economy, causing a significant slowdown in economic activity around the world. Businesses around the world, including ours, have been impacted by the restrictions on travel, some business activities and non-essential services and the reverberations of severe curtailment of normal activities. Since the start of the pandemic, we have taken proactive steps to ensure the health and safety of our employees with the majority of our employees working from home to maintain business continuity. Our employees and businesses have adapted to the changing needs of our clients, customers and business partners. We remain committed to continuing to carry on our business activities without interruption during these challenging times.

In addition, on 1 May 2020, the UK Financial Conduct Authority (FCA) announced that it would commence court proceedings against eight insurers (including the Company) in order to clarify key uncertainties in the wider market around the response of Business Interruption cover to the COVID-19 pandemic. Following initial rulings by the Court and High Court, on 15 January 2021 the Supreme Court delivered its judgement, substantially allowing the FCA’s appeal on behalf of policyholders. Following this, the Company has focused on ensuring that relevant claims are adjusted and settled as fast as possible and in line with the judgment.

The Company’s chief concern throughout has remained the safety of our employees and their families at this unprecedented time and continues to ensure both the wellbeing of staff and the ongoing operational requirements of the business are met. We remain committed to safeguarding our colleagues’ health and wellbeing during the ongoing COVID-19 pandemic. In addition to expanding our existing financial, medical and mental health benefits to address the unique challenges of COVID-19, we offered several initiatives for employees to bolster their mental and emotional well-being during these unprecedented times.

The Risk and Control team continues to monitor the impact on the business, there however remains significant uncertainty around the implications of the pandemic, with negative economic impact anticipated, as well as the risk of further “waves” of infections within countries and communities. Whilst there have been no reports of significant infection rates amongst staff, infection rates continue to be monitored on an ongoing basis.

On 11 March 2020, the World Health Organisation declared a pandemic in relation to the outbreak of the COVID-19 virus. In particular, the following areas are exposed to increased risk as a result of the pandemic. Loss exposure and reserve adequacy; Valuation of the investment portfolio; Recoverability of debtor balances; and Operational Risk.

The Company has evaluated / addressed these risks as follows:

- Continuous review of COVID loss development and impact of the FCA court case and subsequent relevant developments;
- Performance and valuation review of the investment portfolio;
- Consideration of any impact on recoverability of debt;
- Successful implementation of work from home environment and ability to bind business during the pandemic.

The COVID-19 pandemic initially led to material direct losses and an increase in gross reserves, however the Company's extensive reinsurance programme significantly reduced the net exposure to COVID-related losses to £26.3m. Whilst there remains the risk of secondary impacts on the insurance industry and wider economy, the Company is well placed to manage those risks and to take advantage of the continued re-opening of the global economy.

The table below shows the impact of COVID-19 pandemic on the Solvency II technical provisions at 31 December 2021.

	2021	**2021**	**2021**	**2020**	**2020**	**2020**
	£'000 **Technical Provisions excluding COVID**	£'000 **Technical Provisions relating to COVID**	£'000 **Technical Provisions including COVID**	£'000 **Technical Provisions excluding COVID**	£'000 **Technical Provisions relating to COVID**	£'000 **Technical Provisions including COVID**
Gross Best Estimate including Risk Margin	475,635	26,338	501,973	387,686	43,770	431,456
Net Best Estimate including Risk Margin	74,779	2,077	76,856	64,048	3,186	67,234

Directors' Responsibilities

We acknowledge our responsibility for preparing the Solvency and Financial Condition Report ("SFCR") in all material respects in accordance with the Prudential Regulatory Authority ("PRA") Rules and the Solvency II Regulations.

We are satisfied that:

a) throughout the financial year in question, the insurer has complied in all material respects with the requirements of the PRA Rules and the Solvency II Regulations as applicable to the insurer;

b) it is reasonable to believe that the insurer has continued so to comply subsequently and will continue so to comply in future.

On behalf of the Board

Jason Kittinger

SVP, Chief Financial Officer

6 April 2022

SECTION A Business and Performance

A.1 Business

A.1.1 Name and Legal Form of the Undertaking

Arch Insurance (UK) Limited is incorporated in the United Kingdom. The address of the registered office of the Company is:

60 Great Tower Street
London
EC3R 5AZ

This SFCR covers the Company on a solo basis.

A.1.2 Insurance Supervisors

<u>Prudential Regulations Supervisor</u>
Prudential Regulation Authority ("PRA")
20 Moorgate
London
EC2R 6DA

<u>Financial Conduct Supervisor</u>
Financial Conduct Authority ("FCA")
12 Endeavour Square
London
E20 1JN

<u>Group Supervisor</u>
Bermuda Monetary Authority ("BMA")
BMA House
43 Victoria Street
Hamilton HM 12 Bermuda

A.1.3 External Auditor

PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
7 More London Riverside
London
SE1 2RT

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

ARE, a company incorporated in Ireland, owns 100% of the equity share capital of the Company. The Company's ultimate parent and ultimate controlling party is ACGL.

A.1.5 Group Structure

As stated above, 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.

The smallest group of undertakings for which group financial statements are drawn up, and of which the Company is a member is Arch Reinsurance Limited ("ARL"), a Bermuda-based company.

Below is a summary view of the Company organisational chart and a complete organisation chart of ACGL and AIUK's position in the Group is included as **Appendix 1**, all entities in the simplified structure have 100% shareholding and voting rights.

A.1.6 Material related undertakings

The Company owns 100% of Arch Europe Insurance Services Ltd. (“AEIS”), a company incorporated in United Kingdom. AEIS provides services in the form of staff and facilities to the Company.

A.1.7 Business review

Business Trends

Our insurance underwriting strategy is to operate in lines of business in which our underwriting expertise can make a meaningful difference to operating results. Our insurance business focuses on talent-intensive rather than labour-intensive business and seeks to operate profitably across all the product lines. This means that we underwrite predominantly in the London wholesale insurance markets and in regional markets, both directly and on a selective delegated underwriting authority basis. To achieve our objectives, our insurance operating principles are to:

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Reflecting the strengthened rating environment, the Company’s underwriting strategy for 2021 was more offensive, actively seeking to increase the amount of business written in our regional and speciality lines of business and maximising the opportunities for growth. Notwithstanding the competitive environment, the Company has sought to maintain its underwriting discipline and execute its philosophy on superior risk selection.

The focus for 2021 has been the continued growth through expansion of profitable lines of business and the capital of the Company and Group remains available to support this. The Company continues to benefit from a financial strength rating of A2 from Moody’s and A+ from Standard & Poor’s, Fitch and A.M. Best.

Climate change

Throughout the year, there has been continued focus on the impact of the Company's operations on the community and the environment. Environmental, Social and Governance (ESG) has entered the mainstream in recent years as stakeholders evaluate organisations not only to gauge their money-making ability, but also their commitment to making positive change in the world and their ability to manage risks arising out of environmental and social changes.

The Company, as part of the wider ACGL group, is governed by the ESG Steering Committee, which is chaired by the Group's Chief ESG Officer, who has responsibility for coordinating and managing the oversight of ACGL's growing ESG programme. The Directors of the Company review the output of the ESG Steering Committee, and where deemed appropriate incorporate its recommendations in their management of the Company.

In addition, the directors have made an assessment of the specific risk of climate change to the Company and have identified potential risks relating to underwriting and investment risks, each of which has been set out in further detail below. The Company has embedded management of climate change risks into its standard approach for risk management. This is a fast-changing area and both the Company and the wider insurance market will continue to develop approaches to better understand and manage potential risks from climate change.

The company manages the financial risks from climate change under the following categories, which are described further below:

1. Physical risks
2. Transition risks
3. Liability risks
4. Investment risks

Underwriting risks from Climate Change

The Company is looking at all aspects of the potential new underwriting environment that may emerge with the advent of various aspects of climate change. Both first and third party underwriters are working to continually assess the impact of various climate change scenarios on the existing and future portfolio, including but not limited to changing weather pattern and changing sea levels and their impact on risk selection and aggregation; to novel litigation against various companies or their directors and officers for their alleged fault in enabling such change, which may impact risk selection and policy structure; to the opportunities generated by a changing economy.

Physical risks

The Company has a well-established exposure management framework, used to measure and manage catastrophe loss probability. The exposed policies are modelled by country and peril to estimate loss probabilities from natural catastrophe events, such as cyclones, windstorms, earthquakes, floods, bushfires and other hazards. The whole portfolio is reassessed on a quarterly basis and the assessment includes modelling of historic events and probabilistic extremes of events across relevant geographic regions. Climate change signals, such as warming of sea surface temperatures are incorporated into the parameterisation of the model used. The Company's models are tested for sensitivity and stress tested against the Company's historic claims experience. The key metric used is the 1 in 250-year stress test performed on a gross and net basis, which are tracked quarterly. The company uses Stress and Scenario tests to assess potential impacts from changing weather patterns. A number of scenarios have been considered, which show that there could be a long-term impact to modelled losses relating to US Windstorm exposures, although it is anticipated that we would remain within current risk appetites even in scenarios with increasing underlying hazard from windstorms.

Transition Risks

Arch recognises that the transition away from fossil fuels will require large social and economic shifts, which may have a material impact on the insurance market and our insureds. Arch has identified the most likely sectors to be negatively impacted and operates a referral process to ensure that exposure in these sectors is limited (e.g., Thermal Coal). Arch further recognises the potential for future opportunities in supporting the energy transition, is a writer of renewable energy business, of companies developing and manufacturing electric vehicles and insurers of various projects and research which both enable and profit from a new economy; this develops as the opportunity itself develops and has in itself challenges around pricing and policy form, in which we invest our own intellectual property.

Liability Risks

Arch recognises the potential for new types of insurance loss to emerge as novel legal challenges are brought against companies, including our insureds (e.g., liability claims relating to the attribution of responsibility for climate change, or D&O claims relating to insured companies approach to energy transition and new disclosure requirements). The Company includes consideration of these risk factors in its underwriting approach for relevant individual risks and lines of business.

Investment risks from climate change

The Company has an investment portfolio worth £76.9m at 31 December 2021 consisting mainly of shares, debt securities, fixed-income securities and other variable-yield securities. Investments are managed by Arch Investment Management Ltd, a member of the wider ACGL Group. The company's investment portfolio is well diversified across economic sectors and individual counterparties, is short-duration, and is predominantly highly-rated fixed income – all of which limit overall exposure to climate change risks. The investment committee, which has been delegated oversight of the Company's investment portfolio by the Board of Directors is aware of the importance of stewardship and sustainability alongside integrating ESG into the overall governance structure, which involves the inclusion of Environmental, Social and Governance factors into wider investment analysis. At the ACGL level, ESG scores are incorporated into the overall portfolio analysis on a regular basis, the outcome of which is made available to the local investment committee.

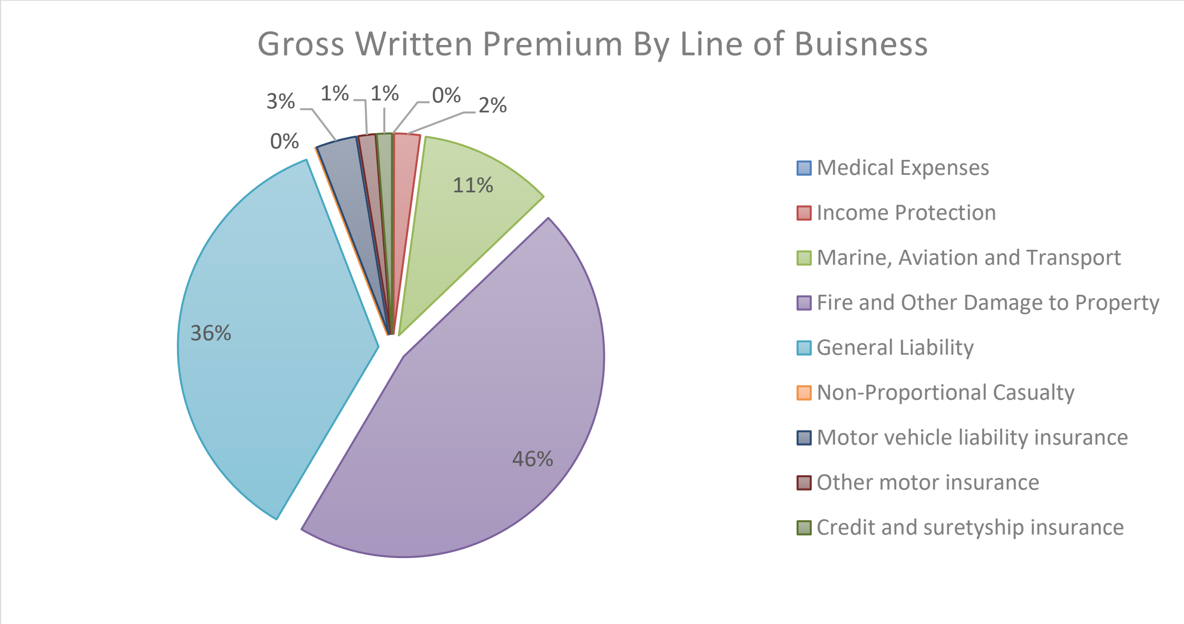
Significant regulatory and legal matters

The Company is not currently subject to any significant regulatory intervention or legal litigation.

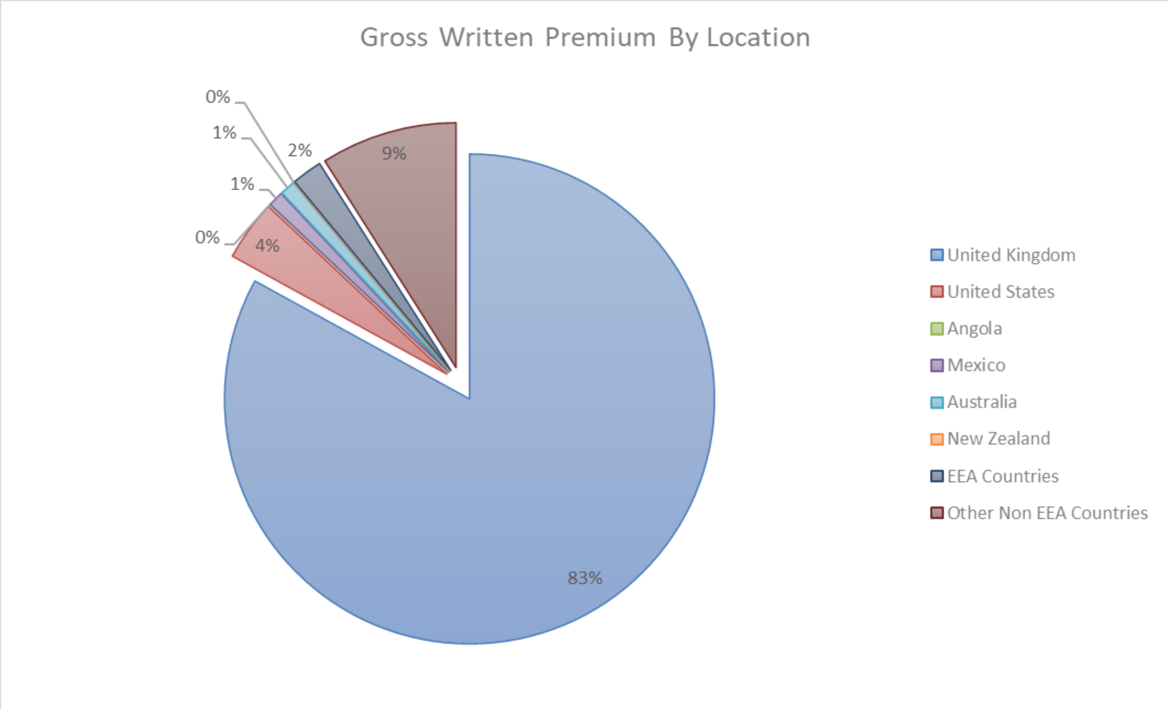
A.1.8 Material Lines of Business and Geographical areas where business is conducted

The principal activity of the Company is to underwrite Energy, Property and Casualty insurance business, including but not limited to, Specialty lines of insurance. The Company operates from its head office in London and its UK Regional offices.

The following diagram shows the total gross written premiums for each of the Company's lines of business and the location of the risk. The Company wrote £405.7m of gross written premium at the year ended 31 December 2021 (2020: £357.6 million).



	2021		2020	
	£'000	**% of Total**	**£'000**	**% of Total**
Gross Premiums Written				
Medical Expenses	(210)	0%	2,870	1%
Income Protection	8,454	2%	7,678	2%
Marine, Aviation and Transport	43,448	11%	42,119	12%
Fire and Other Damage to Property	185,417	46%	163,761	45%
General Liability	144,815	36%	121,865	34%
Non-Proportional Casualty	11	0%	10	0%
Motor vehicle liability insurance	13,167	3%	7,984	2%
Other motor insurance	5,643	1%	1,884	1%
Credit and suretyship insurance	4,939	1%	9,392	3%
Total	**405,684**	**100%**	**357,563**	**100%**



	2021		2020	
	£'000	**% of Total**	**£'000**	**% of Total**
Gross Premiums Written by Risk Location				
United Kingdom	335,897	83%	272,497	76%
United States	14,569	4%	14,690	4%
Angola	2,804	0%	456	0%
Mexico	3,018	1%	2,045	1%
Australia	3,638	1%	1,689	0%
New Zealand	2,495	0%	2,082	1%
EEA Countries	7,674	2%	11,950	3%
Other Non EEA Countries	35,589	9%	52,154	15%
Total	**405,684**	**100%**	**357,563**	**100%**

A.1.9 Significant Business or Other Events

No other information to report as of 31 December 2021.

A.2 Underwriting Performance

The following table summarises the underwriting results for year ended 31 December 2021 and year ended 31 December 2020.

	2021 (excl. intra-group reinsurance) £'000	2021 (incl. intra-group reinsurance) £'000	2020 (excl. intra-group reinsurance) £'000	2020 (incl. intra-group reinsurance) £'000
Gross Premiums Written	405,684	405,684	357,553	357,553
Net Premiums Written	336,551	49,014	276,634	41,495
Net Premiums Earned	**306,628**	**44,526**	**251,513**	**37,727**
Net Claims Incurred	(175,720)	(26,154)	(165,876)	(24,881)
Net underwriting expenses	(124,809)	(23,469)	(105,690)	(21,438)
Net underwriting results	6,099	(5,097)	**(20,053)**	**(8,592)**
Investment return and foreign exchange	(3,281)	(3,281)	(344)	(344)
Profit/(Loss) before taxation	**2,818**	**(8,378)**	**(20,397)**	**(8,936)**
Taxation	(6)	(6)	(4)	(4)
Profit/(Loss) for the year	**2,812**	**(8,384)**	**(20,401)**	**(8,940)**
Claims ratio	57.3%	58.7%	66.0%	66.0%
Expense ratio	40.7%	52.7%	42.0%	56.8%
Combined ratio	98.0%	111.4%	108.0%	122.8%

Note: The Directors of the Company measure performance excluding the intra-group reinsurance arrangements. Therefore, the commentary in the sections below is based on the pre-intra-group reinsurance result of the Company.

Gross written premium increased by £48.1m to £405.7m (2020: £357.6m). There were some one-off events last year which increased the 2020 premium by £16.8m. This included a change in estimation basis which increased premium by £28.1m, offset by an £11.3m decrease in premium resulting from the Part VII transfer (please refer to last year's accounts for further details). Excluding these one-off events, 2021 premium increased by £64.9m (19%) compared to prior year primarily driven by the continuing hardening London market rates, new open market contracts and increased binder premiums. In particular the UK Regional business generated £45.7m additional premium compared to 2020, whilst the Property line increased by £12.1m.

During 2021 the COVID-19 pandemic continued but with no significant increase of claims incurred. The ultimate net exposure of the Company was limited to £21.4m (2020: £20.6m), and an ultimate gross exposure of £34.6m (2020: £38.3m). Pre intra-group reinsurance, the loss ratio was 8.7 points lower than 2020 at 57.3% (2020: 66.0%) primarily due to larger catastrophe losses in prior year including those related to COVID-19.

Net underwriting expenses increased by £19.1m to £124.8m (2020: £105.7m), mainly due to growth of the UK Regional business, which incurs higher expense ratios than the Company's specialty lines of business.

The net investment loss excluding foreign exchange difference is £1.2m in 2021 (2020: £1.4m income).

The Company has the benefit of a whole account proportional (85%) intra-group reinsurance treaty and a stop loss reinsurance protection with Arch Re. Arch Re is a Bermuda-domiciled company. This reinsurance protection enables capital to be provided from Bermuda to support the business written through the Company and achieve an A+ Standard & Poor's rating for the Company. The net loss on the whole account intra-group reinsurance treaty and stop loss, before consideration given to the capital benefit, was £11.2m (2020: £11.5m income).

	2021		2020	
	£'000	% of Total	£'000	% of Total
Net Underwriting Result*				
Medical Expenses	(448)	8%	254	-3%
Income Protection	571	-11%	590	-7%
Marine, Aviation and Transport	(1,978)	37%	1,019	-11%
Fire and Other Damage to Property	(883)	17%	(3,393)	38%
General Liability	(1,379)	27%	(6,948)	79%
Non-Proportional Casualty	(11)	0%	(4)	0%
Motor vehicle liability insurance	(708)	13%	108	-1%
Other motor insurance	(296)	6%	(397)	4%
Credit and suretyship insurance	(148)	3%	(78)	1%
Total	**(5,280)**	**100%**	**(8,849)**	**100%**
Net Underwriting Result by Risk Location				
United Kingdom	(9,312)	176%	(7,337)	82%
United States	(1,543)	29%	(271)	3%
Zimbabwe	(132)	3%	(11)	0%
Norway	(297)	6%	(51)	1%
Chile	(241)	5%	(42)	0%
Ghana	(244)	5%	(52)	1%
EEA Countries	1,151	-22%	(233)	3%
Other Non EEA Countries	5,338	-102%	(852)	10%
Total	**(5,280)**	**100%**	**(8,849)**	**100%**

The table above excludes investment income expense.

The segment and geographical location business mix has seen a shift from EEA business post Brexit and an increase in UK business due to the UK Regional acquisition.

The overall net underwriting loss was primarily driven by an increased loss ratio due to losses arising out of the COVID-19 pandemic.

A.3 Investment Performance

The Company's investment portfolios primarily consist of highly rated fixed income securities and cash, these have an average S&P rating of AA+. These are available to settle insurance and reinsurance liabilities to third parties. Our aggregate invested assets at 31 December 2021 totalled £120.4 million (2020: £77.1 million).

The distribution of our fixed income and other investments by type is shown below. This excludes holdings in related undertakings:

	2021		2020	
Asset Type	**£'000**	**%**	**£'000**	**%**
Government Bonds	72,400	60%	35,709	46%
Corporate Bonds	29,331	24%	20,497	27%
Collateralised Securities	2,167	2%	1,627	2%
Collective Investment Undertakings	16,461	14%	19,288	25%
Other	-	0%	-	0%
Total	**120,359**	**100%**	**77,121**	**100%**

The components of net investment income included in the statement of income and expenses are as per the table below:

	2021		2020	
	£'000	**%**	**£'000**	**%**
Government Bonds	11	1%	879	68%
Corporate Bonds	166	23%	581	45%
Collateralised Securities	12	2%	11	1%
Collective Investment Undertakings	544	74%	(176)	-14%
Other	-	0%	-	0%
Total Investment income	**733**	**100%**	**1,295**	**100%**
Net investment expenses	(183)		(257)	
Net investment return	**550**		**1,038**	

The net investment return, excluding dividend from the subsidiary and foreign exchange difference, was £0.5 million in 2021 (2020: £1.0 million). The net investment return includes investment charges and unrealised gains and losses recognised in other comprehensive income. Effective net investment return was 0.5% (2020: (0.8%)).

A.4 Performance of Other Activities

The following table summarises the other income and expenses for the year ended 31 December 2021 and year ended 31 December 2020.

	2021	2020
	£'000	**£'000**
Net Foreign Exchange Losses	1,229	(607)
Net Foreign Exchange Gain	-	-
Total Foreign Exchange Gains / (Losses)	**1,229**	**(607)**

The Company's foreign exchange gains and losses are from the translation of subordinated currency positions that are different to the functional currency of the Company. The main subordinated trading currencies are Euros, United States Dollars and Australian Dollars.

Though the Company's policy is to match the assets and liabilities of these subordinated currency positions, in most cases there is a small surplus held at balance sheet date due to timing of movement in assets and liabilities and the timing of actions taken to remediate the matching positions.

AIUK has no lease arrangements as at 31 December 2021. All services are recharged to the entity from AEIS.

A.5 Any Other Information

No other information to report as of 31 December 2021.

SECTION B System of Governance

B.1 General Information on The System of Governance

B.1.1 Overview

Given the nature, scale and complexity of the risks inherent in our business, the Board of the Company considers the Company's System of Governance to be adequate for a Company which is classified as a Category 4 firm under the PRA's five categories framework, which is defined as a Company whose:

'size, interconnectedness, complexity and business type give them very little capacity individually to cause disruption to the UK financial system by failing or by carrying on their business in an unsafe manner, but where difficulties across a whole sector or subsector have the potential to generate disruption. Insurers whose size (including number of policyholders) and type of business mean that there is very little capacity to cause disruption to the interests of a substantial number of policyholders.'

The purpose of the Board is to act as the main governing body of the Company, and this is detailed in the Board's Terms of Reference, which include a schedule of matters reserved for the Board of Directors.

The 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. This includes supervising a suitable business organisational structure and culture to achieve the business goals, setting senior management performance objectives aligned with strategy and policies and ensuring that there is effective information and reports on all matters for monitoring of key risk drivers or key decision making.

The Board is intended to operate as an effective, balanced body of qualified persons, with appropriate skill sets, collectively guiding the performance in the objective best interests of the Company and its wider stakeholders under the leadership of the Chairman, who shall cater for the appropriate exposure and escalation of important matters into the full Board for discussion as required.

The terms of reference of the Board require the composition of the Board to be balanced, including a mix of executive and non-executive Directors. The terms of reference require at least two fully independent non-executive Directors in order to provide an objective counterpoint to group considerations in the constructive review and discussion by the non-executives of the proposals, actions and performance of the executive management team.

The Board of Directors of the Company consists of Nine Directors of which two are Independent Non-Executive Directors, namely the Chairman of the Board and the Chairman of the Audit Committee. The Board also has three "Group" Non-Executive Directors.

S. Bashford	Chief Underwriting Officer	
N. Denniston	Independent Non-Executive Director and Chairman	
K. Felinsky	Independent Non-Executive Director	(appointed 09.06.2021)
M. Hammer-Dahinden	Group Non-Executive Director	
J. Kittinger	Chief Financial Officer	
P. Leoni	Chief Underwriting Officer	
J. Mentz	Group Non-Executive Director	
P. Storey	Independent Non-Executive Director	
H. Sturgess	President and Chief Executive Officer	

The registered Company Secretary is Paul Ralph (appointed 1 November 2020).

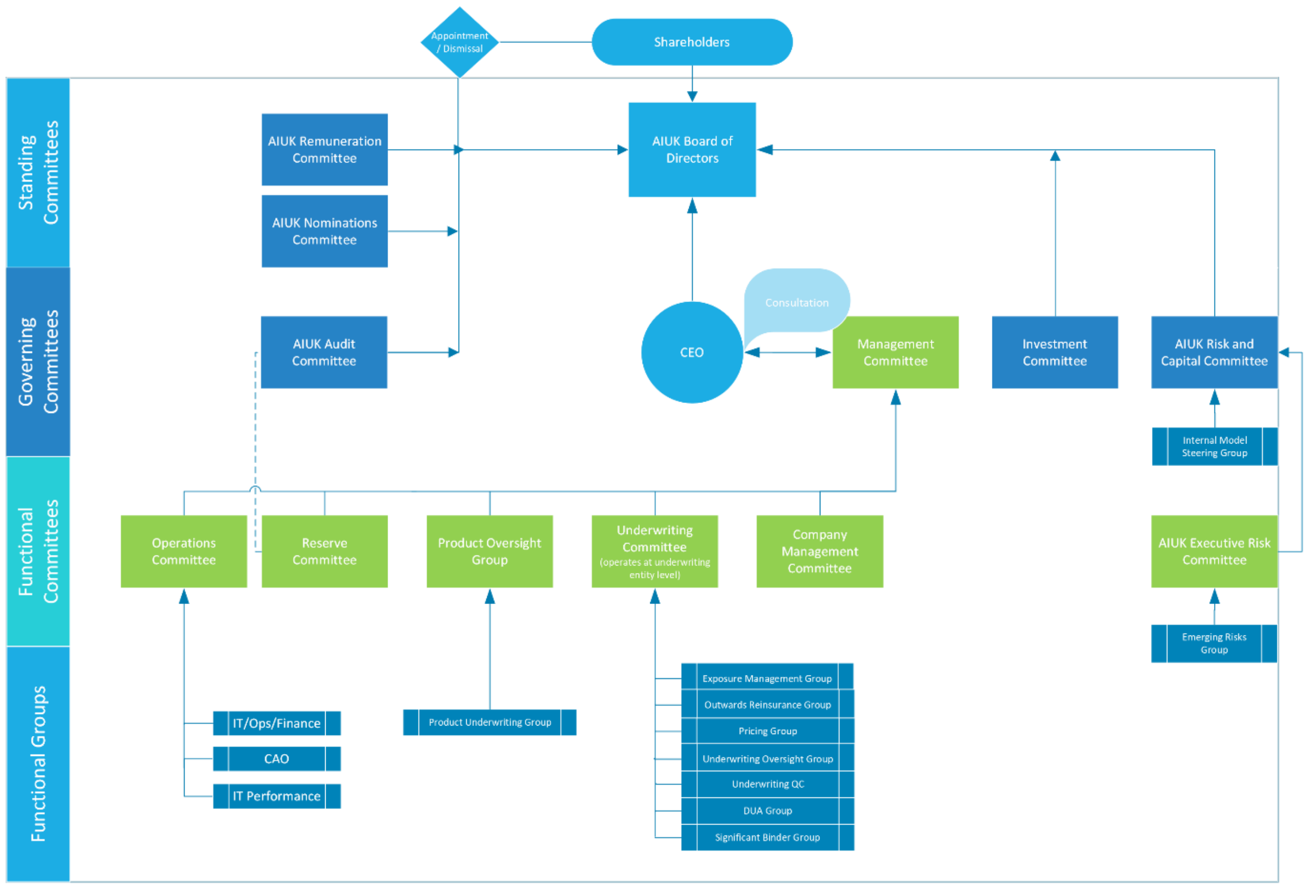
B.1.2 Board Committees

The Articles of Association of the Company allows the Board to delegate powers to individual Directors or to any committee consisting of one or more persons, whilst still retaining responsibilities. Where such a committee is established, its proceedings and decisions must be fully reported on an exception basis to the Board at the next meeting following each meeting of the committee.

The activities and effectiveness of the Committees are reviewed and evaluated at the quarterly Board meetings by reports from the key officers and special assignments and responsibilities allocated by the Board if deemed necessary.

The Board is supported by the following approved committees operating under their own terms of reference.

AIUK BOARD AND COMMITTEE STRUCTURE



Audit Committee

The Audit Committee is a governing committee of the Board, charged with oversight of financial reporting, disclosure and the control environment.

The Audit Committee is appointed by the Board from amongst the Non-Executive Directors of the Company, chaired by an independent Non-Executive Director and consists of no less than three members. The members are selected on the condition of possessing the necessary skills to carry out the role effectively.

The key responsibilities of the Committee are to assist the Board of Directors with expert review of the following:

- monitoring and critically assessing the integrity of the financial statements of the Company, Pillar 3 disclosures and supplementary regulatory information relating to the Company's financial performance;
- reviewing and examining the management's processes for ensuring the appropriateness and effectiveness of the Company's systems and controls;
- overseeing the relationship with external auditors;
- providing effective monitoring and oversight of the Company's Internal Audit Function ("IAF");
- overseeing the independent validation of the Company's Internal Capital Model;
- 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.
- conducting other ad hoc investigations, enquiries, and matters as may be referred to it by the Board from time to time; and
- overseeing whistleblowing with the Champion senior independent non-executive director appointed by the Board.

The Audit Committee meets at least quarterly and reports to the Board on a quarterly basis.

Risk and Capital Committee

The Risk and Capital Committee is a governing committee of the Board, charged with assisting the Board in fulfilling its oversight responsibilities with regard to the identification of and control by the management of material risks to the objectives of the Company. This encompasses the processes undertaken by management to identify, evaluate and mitigate the material risks to the objectives including, but not limited to strategic risk, insurance risk, investment risk, credit risks, liquidity risk, operational risk and regulatory risk as well as emerging risks which flow across these categories. In carrying out this work the Committee will take into consideration the work of the Executive Risk Committee and Audit Committee.

The Risk and Capital Committee consists of four Non-Executive Directors of the Company, chaired by an independent Non-Executive Director. Normal attendees include the Chief Risk Officer ("CRO") and members of senior management, along with representation from the IAF.

The key responsibilities of the Risk Committee are to:

- review at least annually the Risk appetite and risk limits and make recommendations of the appropriateness to the Board, with risks arising in the market being considered from both a syndicate and platform basis;
- provide oversight over any breaches of risk appetite and rectification plans;
- review and make recommendations to the Board regarding the Company's regulatory and economic capital requirements;
- on a quarterly basis, review and annually recommend to the Board the ORSA report;
- review reports from management regarding their oversight of key or material risks, emerging risks and material breaches of risk limits and the adequacy of management actions;
- review and consider the appropriateness of the design and methodologies associated with the Internal Capital Model, including stress and scenario testing (including reverse stress tests) and the results of the independent validation of the model, to make such reports and recommendations to the Board regarding proposed changes and stress and scenario testing as required;
- approve the Risk function's annual plan, including principal activities and resources, and monitor progress against this plan;
- approve the Risk Function Target Operating Model plan, including principal activities and resources, and to monitor progress against this plan;
- review management's proposals for the risk strategy, risk management framework and associated internal controls and make recommendations as to changes or otherwise;
- where applicable, review and approve the CRO's qualitative statement to the Remuneration Committee on risk weightings to be applied to performance objectives incorporated in senior managements remuneration;
- receive updates on regulatory risk matters, including material PRA, FCA and Lloyd's interaction and any material correspondence with them; and
- review and recommend approval to the Board the Compliance Function's annual plan (including principal activities and resources) and obtain assurance that appropriate arrangements are in place to ensure that the Company's activities comply with the relevant laws and regulations.

The Risk and Capital Committee meets quarterly and reports to the full Board on a quarterly basis through the respective reports of the CRO and the Chair of the Risk Committee.

Executive Risk Committee

The purpose of the Executive Risk Committee is to consider the risk governance requirements of the business and in doing so to report and make recommendations to the Risk and Capital Committee in respect of the scope and nature of the risk management framework and its adequacy in providing structures, processes and controls to ensure the principal risks are identified and appropriately managed within risk appetite.

In carrying out this work the Executive Risk Committee takes into consideration the work undertaken by other Executive forums and escalate significant matters to the Board Risk and Capital Committee as soon as is reasonably practicable.

The responsibilities of the Executive Risk Committee encompass the following:

Risk appetite and strategy

- consider and recommend to the Risk and Capital Committee for approval the risk appetite framework and limits, with risks being considered from a platform basis;
- review and approve the risk appetite metrics used and the system of approved limits and associated Key Risk Indicators; and
- review breaches of risk appetite limits and the proposed rectification actions, including such cases which are escalated to the Executive Risk Committee.

Risk exposures and management

- on a quarterly basis to review and provide updates to the Risk and Capital Committee on component sections of the ORSA report(s), as well as recommend the annual ORSA report(s) to the Risk and Capital Committee;
- establish and maintain the Company's risk management framework and review the effectiveness of its operation across the business;
- review the output from the risk and control self-assessment process covering financial and non-financial risks;
- review the Company's principal risk policies, approve the tier 2 policies, and where certain policies are delegated elsewhere, satisfy itself that these responsibilities are being discharged;
- monitor compliance with the principal risk policies and provide oversight over any breaches and associated rectification activities;
- review reports from management regarding their oversight of key or material risks (such as cyber), emerging risks (such as climate change) and material breaches of risk limits and the adequacy of management actions; and
- annually review the Company's operational resilience approach as well as business continuity planning to ensure that personnel and assets are protected and are able to operate in the event of a disaster.

Capital Management

- review and make recommendations to the Risk and Capital Committee regarding the Company's regulatory capital requirements; and
- review and consider the appropriateness of the design and methodologies associated with the Internal Model, including stress and scenario testing (including reverse stress tests) and the results of the independent validation of the model, to make such reports and recommendations to the Risk and Capital Committee regarding proposed changes and stress and scenario testing as required.

Risk Function plan (s)

- review the Risk Function's annual plan, including principal activities and resources, and monitor progress against the plan quarterly; and
- review the Risk Function Target Operating Model plan, including principal activities and resources, and to monitor progress against this plan.

Regulatory Compliance

- receive updates on regulatory risk matters, including material PRA and FCA interaction and any material correspondence with them; and
- review the Compliance Function's annual plan, including principal activities and resources, and obtain assurance that appropriate arrangements are in place to ensure that the Company's activities comply with relevant laws and regulations.

The Executive Risk Committee consists of senior members of staff who are responsible for risk management and compliance activities, including the CRO (as Chair), CEO, COO, CAO, CCO and heads of underwriting.

The Executive Risk Committee meets on a monthly basis. The Chair of the Executive Risk Committee meets monthly with the Chair of the Risk and Capital Committee to inform them of matters (including material concerns) and to support the tabling of items at future Risk and Capital Committee meetings.

A summary of discussions which have taken place at the monthly Executive Risk Committee meetings is provided in the CRO's report to the Rik and Capital Committee, along with papers setting out the recommendations that require its approval and attention.

Remuneration Committee

The purpose of the Remuneration Committee is to oversee the Company's remuneration programs and policies to ensure they are appropriate, fairly administered, support the Company's culture and comply with applicable laws and regulations. Further, to review the overall compensation remuneration for Directors, senior managers and Material Risk Takers.

The Remuneration Committee consists of the Independent Non-Executive Chairman of the Board, the Senior Independent Director (or Independent Non-Executive Director), the Chief Executive Officer ("CEO"), and an Executive Director of ACGL Worldwide Insurance Group acting in the capacity as a Group Non-Executive Director (Notified NED) for AIUK. From time to time, others may be in attendance as required.

The key responsibilities of the Committee are:

- to provide independent review of individual determinations of the compensation of Directors and senior managers, with awards to Material Risk Takers considering relevant statutory and regulatory requirements and the guiding principles set out in the Remuneration Policy, while reviewing the ongoing appropriateness of that policy.
- to ensure that compensation is viewed in totality and is proportionate to both responsibility and performance.
- to ensure that compensation is market competitive through periodic surveys and studies of peer organisations and is generally consistent with the objective of proactive talent management.

The Remuneration Committee meets at least annually and reports to the Board as required.

Nominations Committee

The purpose of the Nominations Committee is to assist the Board in its oversight of (i) the operation and composition of the Board and each of its committees; (ii) succession planning for the Board and senior management / executive officers; and (iii) the self-evaluation of the performance of the Board and its Committees.

The Nominations Committee consists of the Independent Non-Executive Chairman of the Board, the Senior Independent Director (or Independent Non-Executive Director), the CEO, and an Executive Director of ACGL Worldwide Insurance Group acting in the capacity as a Group Non-Executive Director (Notified NED) for AIUK. From time to time, others may be in attendance as required.

The key responsibilities of the Nominations Committee are:

- to assess the structure, size and composition of the Board and each of its Committees, taking into account the required balance of skills, knowledge, experience and diversity and independence of the Board and its Committees;
- identify candidates and recommend appointments to the Board for approval and, in the case of proposed appointments to the Board Committees, in consultation with the Chair of the relevant Committee;
- oversee succession plans for the Board, the Chief Executive Officer and executive officers and make recommendations to the Board where appropriate;
- assess diversity and inclusion initiatives and monitor the outcome of those initiatives;
- annually review the independence of non-executive directors and evaluate directors' actual, potential or perceived conflicts of interest arising from their other personal or business interests;
- annually develop and recommend a self-evaluation of the performance of the Board and its Committees for approval by the Board and recommend any changes it considers necessary to the Board for approval;
- oversee the induction and ongoing training and development of directors of the Board; and
- assess talent development programs, policies and procedures.

The Nominations Committee meets at least annually and reports to the Board as required.

Investment Committee

The purpose of the Investment Committee is to oversee the Company's investment transactions, policies and guidelines, including the review of investment manager selection, establishment of investment benchmarks, review of investment performance and oversight of investment risk management exposure policies and guidelines.

The key responsibilities of the Investment Committee encompass:

- investment strategy and risk;
- investment management;
- investment markets and performance;
- liquidity / stress testing;
- monitoring / accounting of assets classes; and
- environmental, social and governance ("ESG").

The Investment Committee is appointed by the Board and consists of senior members of staff who are responsible for managing and controlling investment and market risk, including the CFO as Chair, the CRO and Chief Actuary. There is also external representation in the form of an independent Non-Executive Director.

The investment managers and other finance experts are normal attendees.

The Investment Committee meets quarterly and reports to the Board on a quarterly basis.

Reserve Committee

The purpose of the Reserve Committee is to provide a report to the Management Committee on the status of the reserves of the Company, and to make recommendations to the Audit Committee (in line with all actuarial function requirements) regarding the Reserves to be set by the Board for forecasting the result of the underwriting accounts and for the financial statements according to GAAP and the Solvency 2 and/or unearned reserves.

The Committee receives structured Management Information presented by the Actuarial Function highlighting matters for review so that members can input their experience and judgment of the business and reserving issues as well as considering the views of third-party experts and benchmarks in selecting the reserves for regulatory reporting, highlighting key issues for escalation to the full Board if necessary.

The Committee also oversees the operational and functional integrity of a robust reserving process and monitors conformity to the Reserve Risk appetite and risk issues. It contributes to verifying consistency between the reserving process and model inputs resulting in the treatment of reserve risk in the Internal Capital Model, as well as in relation to pricing, planning and financial reporting.

The Reserve Committee is appointed by the Board and consists of senior members of staff who are responsible for managing and controlling insurance risks and reserves, including the CFO (as Chair), CRO, Chief Actuary and Chief Claims Officer. In addition to the attendance of the reserving actuaries, any one Non-Executive Director of the Board is entitled to observe proceedings at the Committee meetings.

The Reserve Committee meets quarterly. Where significant reserving review is required within the Audit Committee, the Committee may sit within the Audit Committee for this item or a special Committee session will be scheduled to consider year-end reserves.

B.1.3 Organisational Structure and Management Committees

Subject to the oversight of the Board, the CEO is responsible for apportioning responsibilities amongst fellow executive Directors, senior management and staff and must provide for systems, controls and procedures to ensure that the delegation and segregation of duties are efficient and effective.

The CEO proactively manages the business in accordance with the Strategy and Business Plan and is supported by the senior management team and the Management Committee which comprises the following Heads of Departments covering the main Business Processes and Key Functions.

All teams have appropriate access to individuals and decision making across the business to ensure the proper discharge of their responsibilities. This is accomplished through participation and/or access to appropriate departmental heads, the Management Committee, the Board and the CEO.

The standards for Key Functions are embodied in Terms of Reference. The core emphasis of risk oversight and assurance of the Key Functions interact with the definition of the responsibilities of the Business and Corporate Operations Departments.

Management Committee

The purpose of the Management Committee is to serve the President and Chief Executive Officer as the core management team to: (i) develop and implement the Company's strategy as approved by the Board of Directors; (ii) monitor and evaluate performance across all areas of the business; and (iii) manage the day-to-day activities of the business.

The Management Committee is appointed by the CEO and consists of senior members of staff who are specialists in their fields of expertise and possess the necessary skills to support the CEO managing the Company on a daily basis and delivering on the Company's objectives. The final decision-making authority rests with the CEO and he is one of the four Management Committee members who are serving as an executive director on the Board.

The Management Committee consists of :-

- President and Chief Executive Officer (Chair)
- Chief Operations Officer ("COO") / CFO
- CUOs
- CRO
- Chief Administration Officer
- Chief Executive, UK Regional
- Chief Actuary
- Chief Reinsurance and Exposure Officer
- Chief Strategy & Distribution Officer
- Managing Director, Managing Agency
- Director of Reinsurance

On a quarterly basis, the key responsibilities of the Management Committee are to receive reports from all the business areas and to discuss and approve all findings, recommendations and reports that will be presented to the Board and the ACGL Group.

On a weekly basis, the Management Committee facilitates informal, open debate on the tactical direction of the business and to enable all members to report on any changes and issues in their business areas.

The Management Committee is supported by the Underwriting Committee.

Company Management Committee

The purpose of the Company Management Committee is to oversee the performance of the Company and to make recommendations to the Management Committee regarding the management and oversight of the relevant underwriting platform, with specific regard to ensuring there is robust portfolio management in place.

The Company Management Committee consists of the CFO/COO (as Chair); the CUOs of the Company's underwriting platforms and Head of London Market Operations, along with senior representation from Finance, Actuarial, Risk and Claims.

The key responsibilities of the Company Management Committee are to:

i. oversee satisfactory underwriting performance in accordance with the strategy and plan determined by the Board;

ii. ensure appropriate coverage to the Company's underwriting platforms from all functional areas, including delegated authority underwriting, claims, exposure management, operations and credit control, supported by an appropriate suite of performance management information;

iii. conduct a detailed review of the underwriting platforms' business plans and challenge the assumptions applied, ahead of approval by the Management Committee and Board of Directors;

iv. ensure there is sufficient capital available to support the underwriting platforms' business plans;

v. ensure risks (including any emerging risks) that are specific to the underwriting platforms are reported to the Executive Risk Committee [1] and are appropriately captured, assessed and documented on the Company's Risk Register; and

vi. oversee risks identified on the Company's Risk Register relating to the underwriting platforms, including approval of risk mitigation and oversight and challenge of the risk frameworks and the effectiveness of the control environment.

The Company Management Committee meets every two months and reports to the Management Committee at the same frequency.

[1] For clarity, the Executive Risk Committee has overall responsibility for the oversight of all risks and the recommendation and monitoring of risk appetite metrics for all risk categories. The Executive Risk Committee shall consider recommendations from the Company Management Committee in respect of portfolio management related risks.

Underwriting Committee

The purpose of the Underwriting Committee is to assist the Management Committee with oversight of the Company's underwriting activity and reinsurance management programme, including: 1) reviewing and recommending Arch's underwriting and reinsurance purchasing strategy; 2) reviewing and recommending the annual underwriting business plan to the Management Committee; and 3) overseeing the Company's underwriting performance.

The Underwriting Committee consists of senior members of staff who are responsible for managing and controlling underwriting risks and business development. The CEO acts as the Chair of the Underwriting Committee.

The Underwriting Committee consists of the CEO, the CUOs and heads of underwriting divisions and underwriting teams.

The key responsibilities of the Underwriting Committee are:

- to review and recommend the Company's underwriting strategy (taking into account risk appetite, Arch Group strategic and underwriting plans, risk aggregation, current and potential outwards reinsurance strategies, and current and historic performance) to the Management Committee;
- to consider the distribution strategy with brokers and within the market to optimise the relevance to the underwriting platforms;
- to ensure underwriting and outwards reinsurance risks (including any emerging risks) are reported to the Executive Risk Committee and are appropriately captured, assessed and documented on the Company's Risk Register;
- to oversee risks identified on the Company's Risk Register relating to underwriting and outwards reinsurance, including approval of risk mitigation and oversight and challenge of the risk frameworks and the effectiveness of the control environment;
- to oversee underwriting performance, including performing annual reviews for each line of business, for the purpose of making recommendations to Management Committee regarding the appropriate mix of business; and
- to ensure, where appropriate, that suitable key performance indicators ("KPIs") are in place for each line of business and for the outwards reinsurance department and regularly monitor and challenge KPIs and monitor new underwriting initiatives to ensure they track in line with assumptions.

The Underwriting Committee meets quarterly and reports to the Management Committee on a quarterly basis. It has attached groups to consider key binding authorities and exposure management.

Operations Committee

The purpose of the Operations Committee is to provide oversight, challenge and advice to the Management Committee on the Operating Functions to ensure that, individually and collectively, they are aligned with the Company's strategic objectives and provide an efficient and effective service to all relevant stakeholders.

Operating Functions consist of the following: (re)insurance underwriting services; claims operations; finance operations; compliance operations; actuarial & data operations; information technology; human resources; legal; procurement; and facilities. Services relating to any of the Operating Functions that are outsourced or sub-contracted to third parties, including any entity within the Arch Group, also fall within the scope of the Committee.

The Operations Committee consists of the COO/CFO (Co-Chair); CAO (Co-Chair); CIO; CRO; General Counsel; VP, Operations; and the Chief Human Resources Officer.

Amongst other things, it is the responsibility of the Operations Committee to :-

- maintain appropriate oversight of operational processes for the effective management of the business;
- oversee the employment and development of people with the appropriate skillsets to ensure the business is appropriately resourced;
- oversee the resilience (including, but not limited to, cyber resilience) and performance of business-critical services, including reviewing service delivery performance and material incidents, and ensuring appropriate action is taken in the event of significant underperformance or adverse trends;
- ensure that adequate business continuity arrangements exist and subject such arrangements to regular effectiveness testing to ensure that personnel and assets are protected and can operate in the event of a disaster;
- oversee effective bordereaux / binder management;
- ensure effective outsourcing, procurement and vendor management with service providers, including the management of contracts with third parties;
- oversee any material IT matters that impact on technological resilience or business continuity preparedness; and
- maintain reporting, including all financial reporting, of a high quality and submit all reports in a timely, accurate and complete manner to all applicable regulators.

The Operations Committee also has a role in ensuring operational risk is being adequately captured on the Company's Risk Register.

The Operations Committee meets on a quarterly basis in receiving and reviewing periodic reports from the heads of the Operating Functions.

The Co-Chairs of the Committee consider and report to the Management Committee on the matters within the remit of the Committee, identifying any matters in respect of significant risks or material impact to the Company which it considers that action, improvement or approval is needed.

Product Oversight Group

The purpose of the Product Oversight Group (as a functional committee of the Management Committee) is to :-

- assess and review new, renewing or significant changes to Products (as defined) beyond the authority limits authorised to the Product Underwriting Group (exclusive of contracts of large risk or reinsurance); the exiting of a product line; and rejection, amendment and/or approval of a Product, subject to compliance with the FCA Product and Conduct requirements, as well as the Company's policies and risk appetites;
- assess and review escalated product reviews from the Product Underwriting Group, where the Product Underwriting Group has been unable to agree approval, and amend/approve or reject them, subject to compliance with the FCA Product and Conduct requirements; as well as the Company's policies and risk appetites;
- oversee the products approved by the Product Underwriting Group;

- oversee the product and conduct management information reported to the Product Oversight Group, and take effective and timely remedial actions, where required;
- escalate any issues to the Management Committee, who will escalate to the Board, as required;
- review Management Information escalated from the Product Underwriting Group to the Product Oversight Group that is out of tolerance or a cause for concern, and to take the necessary action(s) to remediate risk to the business and customers; and
- review conduct risk appetites and make changes as required, within the Company's broader risk appetites;

The Product Oversight Group consists of senior members of staff who are responsible for business development, including heads of underwriting divisions (with the UK regional CEO acting as Chair) and underwriting teams.

The Product Oversight Group meets on a quarterly basis and reports to the Management Committee through the respective reports of the Chair of the Product Oversight Group and Head of Conduct and Product Management.

B.1.4 Code of Business Conduct

The Company has adopted ACGL Group's Code of Business Conduct, which describes ethical principles, the priority on maintaining a culture of integrity and key areas of compliance. 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.1.5 Independent Control Functions

The Company has in place five key independent control functions as required under the Solvency II Directive. These are:

- Risk Management;
- Compliance;
- Actuarial; and
- Internal Audit.

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. These functions have the authority, independence and resources to carry out their tasks and details of the committees are contained within **Sections B.1.2 & B.5.**

B.1.6 Risk Management Function

The CRO is the Key Function Holder for the Risk Management function.

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 key responsibilities of the Risk Management function are:

- Ensure that the Company has and maintains effective processes to identify, monitor, manage and report on the risks to which it is or might be exposed;

- Run the ORSA Process and produce the ORSA Report;
- Advise on Risk Strategy and recommend Risk Appetites in relation to the Business Strategy;
- Provide an effective Risk Management Framework including Policies on the main categories of risk and monitoring operational risk;
- Operate an effective Risk Governance system to embed risk consideration in decision making;
- Ensure that concentrations and accumulation of risk are well identified, analysed and monitored;
- Coordinate Emerging Risk Policy and use of Stress and Scenario Testing;
- Design and review Risk Register and internal controls;
- Provide effective integrated risk monitoring reporting to confirm position relative to appetite and other control points;
- Design, establish governance and test Standard Formula and its relationship with the overall Risk Management System;
- Calculate Solvency Capital and available economic capital;
- Complete and review the validations of the internal capital model;
- Advise on risk implications of new business or business change; and
- Promote Risk Management culture.

B.1.7 Actuarial Function

The Chief Actuary is the Key Function Holder for the Actuarial function. The key responsibilities of the Actuarial function are:

- Analytical support for Business Plan performance monitoring by management;
- Design and operate pricing framework, monitor pricing adequacy and provide opinion on overall underwriting policy;
- Assess and recommend appropriate reserves, comparing best estimates against experience and reconciling booked reserves and movements with the financial reserving process;
- Coordinate the calculation of technical provisions (Solvency II) and opine on their appropriateness;
- Ensure integrity of the reserving process (data, methodologies and assumptions); and
- Evaluate and report with opinion on the adequacy of reinsurance arrangements.

B.1.8 Internal Audit Function

The Company has an Internal Audit Policy in place which sets out the objectives and responsibilities of the Internal Audit function, which is outsourced to ACGL Group Internal Audit. ACGL Group Head of Internal Audit is the Key Function Holder of the Internal Audit function.

The key responsibilities of the Internal Audit function are:

- Design, undertake and report on risk based, rotational audit plan in order to evaluate the effectiveness of functions, business processes and internal controls;
- Provide assurance over governance and other processes; and
- Independent review and validation of internal capital model and of the ORSA Process.

Internal Audit is discussed further in **Section B.5** below.

B.1.9 Remuneration Policy and Practices

As noted previously, the Remuneration Committee is responsible for independent review of the individual elements of total compensation paid to the CEO and our other executive and senior management and establishing overall compensation policies for our employees. The Remuneration Committee also oversees the administration of executive compensation plans.

The main principles of our strategy include the following:

- compensation decisions are driven by overall long-term collective performance within an approved risk appetite;
- increased compensation is earned through an employee's increased contribution; and
- a proportion of total compensation should consist of variable, performance-based compensation.

Our compensation program includes both fixed and variable compensation, with an emphasis on long-term compensation that is tied to the Company's performance. Although we do not apply rigid apportionment goals in our compensation decisions, our philosophy is that variable pay, in the form of annual cash incentive bonuses and share-based awards, should constitute a significant portion of total direct compensation and be suitably deferred.

A component of variable compensation is granted in the form of annual multi-year vesting share-based awards, which make stock price appreciation over an extended period of time fundamental in realising a compensation benefit. By emphasising long-term performance through using long-term incentives, we align our executives' interests with our shareholders' interests and create a strong retention tool. The Company provides awards in the form of restricted share/unit grants and stock options and share-settled stock appreciation rights ("SARs"), which typically provide for vesting over three years.

The Remuneration Committee considers both financial performance and strategic objectives in its evaluation process, and generally does not use pre-set performance goals. Instead, the Remuneration Committee (i) reviews performance on an annual basis; and (ii) applies its business judgment to review bonuses and the overall amount and mix of compensation elements. The Remuneration Committee believes this structured and disciplined evaluation process in administering the Company's compensation programs enables us to respond more flexibly to changes in the business environment as well as the Company's operations.

B.1.10 Supplementary Pension / Early Retirement Schemes

The Company contributes to a defined contribution Group Personal Pension Plan. The assets of the scheme are held separately from those of the Company in an independently administered fund.

The Company does not maintain any defined benefit retirement or pension plans.

B.1.11 Material Transactions

No other information to report as of 31 December 2021.

B.2 Fit and Proper Requirements

B.2.1 Fit and Proper Process

The Company's Fit and Proper policy sets out the guidelines to ensure that employees meet the Fit and Proper regulatory standards as set out in the Senior Managers and Certification Regime (SMCR), both on entry and throughout their employment at the Company. The CEO is responsible for implementing this policy through the Human Resources function, while the LRCO is responsible for providing advice, implementing a monitoring program and reviewing the policy at least annually.

Individuals performing certain Senior Manager Functions ("SMF") are subject to regulatory pre-approval. These roles receive Prescribed Responsibilities and Expected Responsibilities which are specified by the regulator and recorded in the Responsibilities Map. The LRCO identifies and maintains a record of these functions and individuals as well as other employees subject to Certification.

Key Function Holders, including non-executive Directors not otherwise preapproved, are required to be notified to the regulator once the firm has satisfied its own Fit and Proper procedures.

In accordance with its obligations under the SMCR, the Company has identified those employees who are considered to be "Certified Persons" and need to be certified as being Fit and Proper for the role on an annual basis. These are people who owing to the nature of their role is one that involves or may involve a risk of significant harm to the firm or its customers. This population of people includes both Significant Management Functions and Material Risk Takers.

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. All employees are monitored on an on-going basis through a formal performance appraisal process.

The Company assesses the professional competence of its managers and employees, specifically focusing on management competence and technical competence (including previous experience, knowledge and professional qualifications) by:

- Following a thorough and robust recruitment process including specification of responsibility, considering competency and suitability, with review and discussion by the Nominations Committee of the Board for senior appointments;
- Completing screening of successful candidates comprising various checks which vary according to the level of the role and include criminal record, financial soundness checks and employer references addressing a candidate's regulatory professional and disciplinary track record;
- Ongoing monitoring of managers and employees professional competence through performance appraisals. Formal performance appraisals are performed annually, and records maintained on file. Non-executive Board members undergo periodic individual and collective self-appraisal; and
- Ongoing training and development to ensure competency and ethical propriety is maintained. This includes in-house training such as code of conduct training, anti-harassment training and anti-money laundering. Training and development needs are formally assessed at least annually, and records are maintained on file.

B.3 Risk Management System including the Own Risk and Solvency Assessment ("ORSA")

The Risk Management Function aims to provide practical guidance on the implementation of the Framework on a day to day basis bearing in mind that Arch and the businesses under its management are risk taking organisations and that risk management capability is a fundamental part of the business. Within the 'Three Lines of Defence Framework' all types of risk are managed and controlled on a day-to-day basis by the business.

Risks faced across the company and their respective controls are documented within the Risk Register. Furthermore, the controls identified in the Risk Register to monitor and manage the risks facing Arch are also regularly reviewed for continued relevance. Compliance with the components of these controls is

assessed via the ongoing Internal Audit, External Audit, Sox, Compliance and regulatory reviews undertaken at Arch alongside the quarterly control attestations performed by the risk function. Updates on both the risk and control assessments are reported to the Risk Committees and where required to the Audit Committee, Underwriting Committee, Investment Committee or Reserve Committee meetings and documented within the minutes.

The Risk Management Function (RMF) designs and facilitates the implementation and operation of the Framework across the organization.

Arch's Risk Management Framework consists of:

- A clear, defined and documented risk management strategy that is consistent with Arch's business strategy and includes: risk management objectives, key principles, risk appetite and assignment of risk management responsibilities across all activities.
- Written policies that implement the risk strategy and facilitate control mechanisms. They include a definition and categorisation of the material risks faced, by type and the levels of acceptable risk limits for each risk type. These policies reflect the nature, scope and time horizon of the business and the risks associated with it.
- Processes and procedures to enable identification, assessment, management, monitoring and reporting of risks Arch is, or may be, exposed to.
- Reporting procedures and feedback loops to ensure that information on the risk management system is coordinated and challenged by the risk management function and actively monitored and managed by all relevant staff and the managing agent's board.
- Reports by the risk management function submitted to the Risk Committees, covering the material risks faced by the business and the effectiveness of its risk management system.

Arch's risk management strategy operates in parallel with its business strategy. We have a lower appetite for risk where we do not believe that it is being appropriately rewarded. To achieve its business strategy, Arch seeks out risks with favourable risk return expectations subject to the conditions stated in our risk appetite.

The risks taken, both specifically and in the aggregate, are guided by the following risk management principles:

- All risks assumed must have an associated expected return that is commensurate with the risk profile, and accretive to value when viewed over the long term; Arch has no appetite for unprofitable risks.

- Risks are only assumed to the extent they are consistent with, and contribute to, the achievement of Arch's business strategy and the execution of its business plan; risks not fulfilling these criteria are not considered.
- Risks are only assumed where Arch has the demonstrable expertise to manage them through their lifecycle.
- Risk tolerances, and more granular risk limits, are set to manage the aggregate exposure to risk in relation to Arch's current resources and capacity, so that most adverse plausible outcomes can be absorbed without jeopardising the business model.
- Processes exist for risk identification and assessment that are appropriate given the nature, scale and complexity of risks inherent in the business.
- Actual levels of risk versus risk tolerances are monitored on an on-going basis, and business strategies are adapted to the extent required to stay within tolerances.
- The approach to risk management is communicated throughout the organisation and supported by explicit ownership of the risks and a clear allocation of responsibilities for their day to day management.
- There is adequate oversight and challenge to ensure that risks are being appropriately managed in line with the agreed risk appetite.
- Limit net Insurance Risk in respect of both single event and aggregate extreme scenarios.
- Limit investment risk such that the overall portfolio will be high credit quality and that other investments do not risk a reasonably foreseeable downgrade that would materially affect the solvency of Arch in times of crisis.
- Limit Asset Liability Management ("ALM") Risk by matching duration and currency for assets backing insurance liabilities and debt, and only take ALM risk against assets backing equity. Limit other market risks to be an overall conservative portfolio.
- Limit operational risk by maintaining appropriate proportional controls and limit reputational and regulatory risk by maintaining the highest compliance standards.
- Preservation of capital, utilising Group and external reinsurance as appropriate.

Arch has a set of risk appetite statements that are appropriate for its individual business model and strategy. Risk appetite statements setting out clear descriptions detailing appropriate levels of risk are in place for each material area of risk. Each of these statements is supported by a set of key risk indicators for detailed monitoring which are regularly reviewed and escalated where appropriate through the governance structure to the Board.

Key risk indicators are set at levels at which they are intended to be triggered, this ensures that sufficient remedial actions are put in place to ensure Arch responds early to emerging threats. Risk appetites are reviewed, at a minimum, annually by the BRC to ensure that Arch retains full coverage over its risks.

B.3.1 Risk Management Process and Procedures

The following narrative provides an overview of the Company's Risk Management Framework, which describes the Company's methodology for identifying, measuring, managing, monitoring and reporting on the key risks affecting the Company. The framework provides a disciplined and structured process that integrates risk management activities into the whole organisation through the Risk Management function. It outlines the Company's approach to risk identification and assessment and provides an overview of its risk appetite and tolerance for each of the following major risks:

- Insurance risk;
- Investment risk including Market risk;

- Credit risk;
- Operational, including governance, regulatory, conduct, business/strategic, investor relations (reputational), rating agency and outsourcing risks;
- Liquidity risk;
- Group risk; and
- Emerging risk.

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 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.

The Company's risk appetite is a fundamental component of its business strategy and business plan. To achieve its business strategy, the Company recognises that it is necessary to assume insurance, credit, and investment risks through the products it sells and the investments it makes with available funds, throughout the underwriting cycle. The business strategy also necessitates assuming operational risks through people, process and technology. In addition, the Company is exposed to and seeks to mitigate liquidity risks and to minimise group-specific risk.

Risk Identification and Assessment

The Risk Committee and Audit Committee oversee the top-down and bottom-up review of the Company's risks. Given the nature and scale of the Company, these committees 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 or residual designations.

Risk Management and Monitoring

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 the 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

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

- An overview of selected key risks (e.g. Insurance, 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 to the Board for discussion. The CRO is responsible for immediately escalating any significant risk matters to senior management, the Risk Committee and/or the Board for approval of the required remediation.

B.3.2 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-term 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 organisational 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 decisions, 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.3.3 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 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 requirements, the Solvency Capital Requirement ("SCR"), Minimum Capital Requirement ("MCR") and the adjusted net asset basis.

The Company's capital planning process aims to be dynamic and forward-looking in relation to its risk profile and takes into account the output from the 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 classification and eligibility of own funds under Solvency II.

Any material changes in the underlying risks, such as changes in business mix, reinsurance strategy and investment strategy, are modelled for potential impact on 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.3.4 ORSA 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.

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. 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 CRO, Risk Committee and recommended to the Board for approval.

The ORSA report has now been through a number of annual iterations. We believe that the ORSA process including the Board review and approval is both robust and fully embedded within the business and is providing the Board with an explicit lens into the business from a risk and capital perspective. This is overlaid by the more detailed quarterly CRO risk reporting, through Risk Committee and the Board meetings.

B.4 Internal Control System

B.4.1 Internal Control System

The Company aims to maintain a strong and robust control culture that underpins all aspects of the integrated operations. It is embedded in the Company's philosophy and approach that complies with best practice and with applicable laws and regulations.

As part of this culture, the Company has established an Internal Control Framework and Risk Management System. The Risk Management System comprises administrative and accounting procedures as well as appropriate reporting arrangements at all levels of the integrated operations, which are supported by actuarial, internal audit and compliance functions. All of these form part of an effective internal control environment within the Company.

The Internal Control Framework is adopted by the Board. The product of analysis within the Internal Control Framework serves to provide the Board and management with relevant confirmations in terms of specific regimes related to the financial environment (Sarbanes-Oxley Act of 2002 ("SOX"), financial reporting, reporting of "economic" condition for Solvency II and Pillar 3), Enterprise Risk Management and regulatory compliance standards.

B.4.2 Internal Control Framework

All employees within the Company are responsible for managing risk and controls and as a result a large number of individuals are directly involved in the risk management process. The Company has adopted a 'three lines of defence' approach to manage risks.

Under the oversight and direction of senior management and the Board, three separate groups (or lines of defence) are essential for effective management of risk and control. Each of the three lines plays a distinctive role within an organisation's wider governance framework as follows:

- **First Line (business operations)**: seen as a crucial element as they are responsible for identifying and managing risk and controls (design and operations), also ensuring that a risk and control environment has been established as part of day-to-day operations. The first line therefore owns the risks, and the design and execution of the organisation's controls to respond to those risks;
- **Second Line (management assurance)**: is responsible for ongoing monitoring of the design and operation of controls (established by first line), as well as providing advice and facilitating risk management activities such as promoting the risk framework and systems as part of the day-to-day activities; and
- **Third Line (independent assurance):** includes internal audit who provide independent assurance over the management of risks through the performance of audits and assurance reviews. Our audit committee forms our third line of defence. The three lines of defence model provides a simple and effective way to enhance communications on risk management and control by clarifying roles and duties.

B.4.3 Key Procedures within the Internal Control System

The internal control system must be built on a strong culture which emphasises and demonstrates to all levels of personnel, through policies, procedures and training the importance of internal control. Internal control breaches may also be considered as conduct risk failures.

Internal control consists of five interrelated components (based on a well-known model, COSO Internal Control Framework of Treadway Commission). The model derives the way management manages its controls and outlines the components, principles and factors necessary for designing, implementing and conducting internal control. The five components are Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring.

The processes and procedures should encapsulate the following specific principles of the Internal Control Framework which are exercised in the operation of the Company's day-to- day activities:

- **Performance reviews** – Management perform regular analysis of actual activities and results, for example, against:
  - approved underwriting authorities;
  - business plans;
  - periodic and regular operational reviews;
  - key metrics; and
  - other key performance, risk and control indicators.
- **Segregation of duties** – The authorisation, execution and record keeping for transactions is segregated between personnel.
- **Authorisations** – Any activity resulting in additional obligations by the Company must be authorised by an appropriate person. The authority for individuals or roles to bind or approve specific transactions, are set out in a Delegation of Authority approved by the Board.
- **Reporting** – Establishing and maintaining clear reporting lines that ensure the prompt transfer of information to all people who need it in a way that enables them to recognise its importance.
- **Reconciliations** – This is the act of matching or balancing one system with another, this should be applied to all systems that have an association in terms of data from one relating to data from another.
- **Financial systems** – Controls over basic payments, income, sales, purchasing, inventory and other financial-based systems are firmly in place.
- **Fraud detection** – Staff assessments and procedures to minimise the risk of fraud and maximise the probability of early detection.
- **Information security** – Established and sound information systems maintained resulting in sufficient, reliable, timely, consistent and relevant information concerning business activities.
- **Physical access restrictions** – Where appropriate, physical barriers and other access controls are maintained to protect assets and property. These include password access restrictions to desktop computers, laptops and tablets, together with download restrictions and an overall policy covering buildings security.
- **Retention of records** – Documentation substantiating all transactions is maintained for a required period of time as set out within the Retention Policy in line with statutory obligations.

- **Staff recruitment, appraisal and training** – HR is responsible for controlling recruitment policies and procedures. These include:
  - Assessment of skills, knowledge and experience;
  - Professional qualifications;
  - Annual performance reviews;
  - Independent checks performed for all new joiners;
  - Job descriptions for all staff reviewed annually; and
  - Ownership and administration of the Fit and Proper process.

The Company is included within ACGL Group Assurance Processes including reviews performed by the ACGL's Corporate Underwriting Services Department and local assessment of Internal Control Over Financial Reporting under the methodologies set out in the U.S. Sarbanes-Oxley Act of 2002.

B.4.4 Compliance Function

The Company's Compliance function forms part of the Legal, Regulatory and Compliance function with the LRCO as the Key Function Holder.

The primary purpose of the Company's Compliance function is to ensure that integrated operations continue to adhere to the best practice standards for ACGL Group requirements, Prudential Regulation Authority ("PRA"), Financial Conduct Authority ("FCA"), Lloyd's of London ("Lloyd's"), the European Insurance and Occupational Pensions Authority ("EIOPA") and other regulatory requirements and applicable laws. This is achieved by formulating best practice and monitoring adherence to internal strategies, policies, processes and reporting procedures. The key responsibilities of the Legal, Regulatory and Compliance function are set out in **Section B.1.7** above.

The Compliance function is an integral element of the Company's risk management and internal control framework. The purpose of the Compliance function is to assist the Board in achieving its overall strategic objectives by promoting a culture of integrity, ethical conduct and compliance with the laws, regulations and administrative provisions that affect AIUK. The Compliance function is also responsible for the ongoing assessment of any possible impact of changes in the legal environment on AIUK operations, and for the identification and assessment of legal or litigation risk. It also monitors adherence to certain elements of the risk management framework and the reporting thereon to the appropriate forums.

B.5 Internal Audit Function

Arch Capital Services Inc. ("ACSI") provides internal audit services ("IAS") to all ACGL entities, including the Company. As the Company falls within the remit of IAS, it is deemed by the Company that the internal audit ("IA") function is effectively outsourced to ACSI. IA is led by the Chief Audit Executive ("CAE") who reports to the Chair of the ACGL Audit Committee and administratively to the ACGL Chief Financial Officer. The VP, Internal Audit Services (UK & Europe) ("VP UK"), reports to the CAE, and is subject to the Conduct Rules and Statement of Requirements for the Senior Insurance Managers Regime ("SIMR") under PRA requirements.

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

IA 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 IA's work. The Risk Committee is required to inform IA of all noted control deficiencies, when losses are sustained or of any definite suspicion of irregularities.

IA'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 operations, financial reporting, governance and risk management functions. In addition, IA may perform special examinations and tasks at the request of management, the Board, or the Audit Committee.

B.5.1 Internal Audit Policy and Practices

IA 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.

IA' practices are detailed in the ACSI Internal Audit Policy and Procedures Manual (the "Policy") which encompasses the IA Charter. The IA Charter outlines the role, responsibility, remit, objectivity, independence and quality assurance requirements of the function. Both the Policy and IA Charter are subject to review and update in line with changes in recognised professional standards, IA's internal procedures, Company specific legislation or regulations, as well as taking due account of the specific requirements of Solvency II. The IA Charter is annually reviewed by the CAE and approved by the ACGL Audit Committee. IA governs itself by adherence to the mandatory elements of The Institute of Internal Auditors' International Professional Practices Framework.

B.5.2 Internal Audit Reporting

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 summaries IA'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;
- The risks per the Company's Risk Register;

- IA's assessment of the Company's key and emerging risks and related controls and their linkage to historical and planned audits;
- The scope and quality of work performed by other defined Assurance Providers (Per the Combined Assurance Framework) ; and
- Results of IA's process based risk assessment.

The rationale for planned audits is based on a number of factors which include, but are not limited to, the assessed level of risk associated with each business process, planned operational changes, new or expanding lines of business and consideration of the work performed by other assurance providers.

IA maintains regular communication and coordination with other assurance providers in order to identify potential issues and also to leverage upon the work they perform, where applicable. In addition, IA regularly communicates with the LRCO and Chief Risk Officer throughout the year to discuss relevant Risk/IA matters.

IA issues an engagement memo prior to each audit which outlines the scope of the audit, any specific scope 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, IA issues a formal deliverable (either a report or a memo where appropriate) for all engagements performed. These reports or memos include management's response for all issues identified along with a target date for remediation. The progress of all management actions is monitored by IA and reported quarterly to the Audit Committee.

In addition to the annual Audit Plan, IA presents a Quarterly Report to the Audit Committee. The Quarterly 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 CAE or VP UK's opinion requires reporting to the Audit Committee.

IA also issues an annual report to the Audit Committee which includes an assessment of issues raised by all AIUK assurance providers during the year, in order to conclude on the adequacy of the control environment.

B.5.3 Maintaining Independence

IA staff are employees of Arch Group and, per the IA Charter, may not carry out functional / operational roles or hold any functional / operational responsibilities for any entity within the scope of its responsibilities, including the Company. This ensures that the independence of the IA function is maintained. Additionally, the IA Charter and Policy defines conflict of interest situations and measures to be taken to address such situation. IA are required to complete the standard ACGL conflict of interest forms annually. The CAE also confirms the independence of the IA function to the ACGL Audit Committee on an annual basis.

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 AIUK management.
- The CAE / VP UK has the authority to inform the regulator of any issues should it be deemed necessary.
- The staff in the IA function have no involvement in the day to day operations of the Company.
- IA has access to all staff, management and records and no restriction may be placed on this access or the scope of IA's work.
- Remuneration of the Internal Audit team is not linked to the Company's financial performance. Remuneration of the CAE is approved by the ACGL Audit Committee and remuneration of the VP UK is approved by the CAE under the Arch Group remuneration process.

IA reports directly to the Audit Committee, not to operational management.

B.6 Actuarial Function

The Actuarial function is an integral part of the Company's Risk Management System. The team, which is separate from the Risk Management function, is led by the Chief Actuary. Actuarial Terms of Reference are in place which state that the Actuarial function must be free from influence from other functions and the Board.

The governance of the Actuarial function (reporting lines, remuneration structure, professional requirements) is such that:

- the Actuarial function is able to function independently and objectively while being sufficiently proximate to enable relevant comment to be made on actuarial matters; and
- conflicts of interest are considered, and appropriate mitigating measures are adopted and documented.

The Actuarial function comprises experienced individuals with in-depth knowledge of and professional qualifications in actuarial and financial mathematics. The Chief Actuary is responsible for the function being staffed appropriately given the nature, scale and complexity of the risks inherent in the integrated operations. The team has appropriate access to all resources and information systems required to discharge its responsibilities.

An integral part of the Actuarial function is the responsibility for supporting the capital planning, reserving, reinsurance, and underwriting performance reporting of the Company.

The main activities of the Actuarial function include:

- providing the senior management with the analytical tools and timely management information to empower them to manage and plan the business effectively;
- providing the Actuarial Function Report to the Board at least annually documenting the tasks undertaken and highlighting any shortcomings identified along with how such deficiencies could be remedied.
- The Actuarial Function Report addresses the activities performed by the Actuarial function in the following areas:
    - Coordinating the calculation of technical provisions;
    - Assessing the sufficiency and quality of the data used in the calculation of technical provisions;
    - Comparing best estimates against experience;

- Informing the administrative, management or supervisory body of the reliability and adequacy of the calculation of technical provisions;
- Expressing an opinion on the underwriting policy with sufficient involvement around the policy;
- Overseeing the calculation of technical provisions in the cases set out in the regulations;
- Rating models, rate adequacy, benchmarking, profitability studies and underwriting strategy;
- Expressing an opinion on the reinsurance policy with sufficient involvement on capital modelling, profitability studies and reinsurance strategy;
- Providing sound FRS 102 reserves and reserving volatility measures as input into standard formula SCR and Solvency II technical provisions;
- Ensuring consistency between Return on Capital measures and Pricing;
- Assisting in the independent validation of the calculation kernel;
- Providing accurate and timely management information;
- Providing plan loss ratios via a bridging analysis; and
- Assessing output that feeds into the ORSA, such as technical provisions, business plan and reinsurance arrangements.

B.7 Outsourcing

B.7.1 Outsourcing and Third Party Risk Management Policy

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 Policies, Procedures, systems and controls in place to assess and manage the risk posed by each third party provider (either outside or inside the ACGL Group).

The Company carries out proportionate due diligence on all third party providers based on a risk assessment of the third party, the services it is providing and the data it may hold or gather for the Company. This assessment also identifies any material and/or high risk third party arrangements including those arrangements that need pre-notifying to regulators.

The following are the material business processes / functions provided by third parties or ACGL group:

- Investment Management Services (to Arch Investment Managers, Bermuda);
- Business Process support to the business and control functions including SOX and underwriting data administration services and process support to the Finance, Risk and Actuarial functions (to Arch Global Services, Philippines);
- Internal Audit Services (to ACSI Internal Audit, USA);
- Corporate underwriting services, a division of ACGL Worldwide Insurance Group (UK/USA); and
- Delegated claims management or TPA services (Worldwide).

The Company identifies and monitors qualitative and quantitative performance targets to assess the adequacy of service provision, including to its policyholders, where appropriate.

Using a risk based approach, each third party service provider is reviewed periodically to, re-assess the original due diligence; ensure the effective provision of services; that the outsourced arrangement remains fit for purpose.

Delegated underwriting and administration of claims is subject to specific due diligence, monitoring and audit procedures which are overseen by the Board and, as to particular aspects, through its committees.

B.8 Any Other Information

No other information to report as of 31 December 2021.

SECTION C Risk Profile

C.1.1 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 organisation towards the desired level of risk. It not only supports the 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.

All risks are regularly reviewed at Board committee meetings. The risks can be broadly split into the following categories:

			Adjusted net asset Basis *	
2021 Annual Return	**SCR**	**SCR**	**SCR**	**SCR**
Risk Category	**£'000**	**%**	**£'000**	**%**
Insurance Risk	37,755	55%	37,755	61%
Market Risk	12,013	17%	5,579	9%
Credit Risk	5,776	8%	5,776	9%
Operational Risk	13,570	20%	12,702	21%
Liquidity Risk	-	0%	-	0%
Group Risk	-	0%	-	0%
Undiversified SCR	**69,114**	**100%**	**61,812**	**100%**
Diversification Credit	(10,312)		(6,769)	
Total SCR	**58,802**		**55,043**	

* The "adjusted net asset basis" is reviewed as part of the Company's internal governance processes, but is not independently audited.

The "adjusted net asset basis" is an additional, internally applied, more prudent measure, that the Board use to monitor solvency, and is not part of the requirements of Solvency II. It is reviewed as part of the Company's internal governance processes but is unaudited.

Further details of these risk categories, including the key risk exposures, concentrations, mitigation techniques and sensitivities, are set out below.

C.2 Insurance Risk

C.2.1 Key Risk Exposure

Insurance risk is the risk of losses from business written and includes risks relating to reserves (reserve risk), planned business to be written over the next year (underwriting risk) and catastrophe risk. It forms the largest proportion of the SCR at 55% (2020: 61%).

The key insurance risks identified by management are:

Reserve Risk

The risk that the current reserves are insufficient to cover their run-off. The reserves considered in these calculations are the earned elements of the technical provisions. Reserve risk is modelled by considering the size and volatility of earned reserves (split by line of business and currency) and the dependencies between each modelled variable. Volatilities and dependencies are derived using historical information. Reserve risk is our second largest risk category and is managed by our Actuarial function.

The company operates to a best estimate reserving philosophy. Reserve estimates are derived by the Chief Actuary after consultation with individual underwriters and claims teams, actuarial analysis of the loss reserve development and comparison with market / Lloyd's benchmarks. The objective is to produce reliable and appropriate estimates that are consistent over time and across classes of business. Generally, reserves are established without regard to whether the claim may subsequently be contested, and Solvency II reserves are discounted for the time value of money.

Underwriting Risk

The risk that the unearned reserves and future premiums are insufficient to cover their run-off and future claims and expenses. The reserves considered in these calculations are the unearned elements of the technical provisions and are modelled in a similar way to reserve risk. In addition, one future year of planned business is included within the calculations, and this is modelled by splitting out claims between attritional, large and catastrophe claims. Catastrophe losses in respect of the future year of planned business are considered separately within Catastrophe Risk. Attritional and large losses are parameterised by considering the planned loss ratios and using historical data, Lloyd's data and benchmarks to determine the volatility assumptions.

Underwriting risk is the largest risk category facing the company. The prime drivers are our large losses including those relating to Casualty classes (natural catastrophe exposures are considered within the Catastrophe Risk category).

Catastrophe Risk

The risk of losses due to natural catastrophes relating to unearned business. Natural catastrophes in this context refer to natural disasters namely earthquakes, windstorms and flooding. This is modelled using AIR, an external catastrophe modelling tool. Catastrophe risk is managed by our Exposure Management function.

As with underwriting risk, catastrophe risk is heightened in the current economic climate with rates showing little signs of improving other than in selected catastrophe affected areas, and our underwriting controls remain as tight as ever as we navigate through these difficult economic conditions. We also use reinsurance as a method of risk mitigation. The controls in place for catastrophe risk are consistent with those for underwriting risk.

C.2.2 Material Risk Concentrations

Realistic Disaster Scenarios ("RDS") are in place for all classes of business, and are monitored regularly at a number of committees, including the Exposure Management Committee, the Underwriting Committee and the Risk Committee.

There are generally no material anticipated changes to risk concentrations over the coming year. However, the UK regional book of business, which is being written by the Company following the acquisition from Geo Underwriting at the beginning of 2019 and growth in this portfolio, increased the concentration of risk within the UK, including risks relating to UK windstorm and flood exposures.

C.2.3 Material Risk Mitigations

Reinsurance is considered to be the main method of insurance risk mitigation. This consists of a number of arrangements with external reinsurers, including a catastrophe treaty to mitigate UK flood aggregations. The Company also has an 85% intercompany whole-account quota share arrangement with ARL.

The Company does not make use of any complex arrangements, such as catastrophe bonds or any other methods of alternative risk transfer.

In addition, insurance risk is further mitigated through the following key controls:

Reserve Risk

Key risk management controls include:

- Independent External Review of actuarial reserves - External Actuaries conduct a review of the level of reserves based on data forwarded by the Chief Actuary at least annually for Q4 reserves.
- Adherence to Reserving Policy (GAAP IBNR Reserves) - Arch documents its reserving philosophy and methodologies in the Reserving Policy.
- Chief Actuary Review of GAAP Reserves - A quarterly review of the loss reserves is performed by the Reserving Actuary and the Chief Actuary.
- Review of quarterly reserving data - On a quarterly basis, the Reserve Committee reviews suggested reserves for each line of business presented by the Reserving Actuary and proposes the reserves to be posted for the Underwriting Result to check if reserves are reasonable.
- Board review of reserves - The Board reviews reserves as part of the Quarterly Board pack. The Board reviews the annual Actuarial Function Report.
- Audit Committee review of reserves - On a quarterly basis the Audit Committee reviews the reserve adequacy as part of the Quarterly Audit pack.
- Quarterly Reserving Report - Internal actuaries perform detailed analysis and make the first cut Ultimate Loss Ratio selections. The UK Chief Actuary reviews all selections, and the reserve report is completed and signed by the Reserving Actuary.

Underwriting Risk

Arch has a number of key controls in place for managing Underwriting risk, centered around robust underwriting controls. In addition to underwriting controls, we also use reinsurance as a method of risk mitigation. Key controls include:

- AIUK Regional Executive Committee – meeting monthly and is Chaired by the Regional CUO and other senior AIUK executives, it focuses on overseeing underwriting and operational performance across AIUK.
- Digital Underwriting Strategy – automation of underwriting with feedback loop to improve performance and rapid change employment.
- Business Planning Process – business planning is an interactive process whereby underwriters and management agree the premium and loss ratios required to achieve a target rate of return set by the Board. The Chief Underwriting Officers are responsible for

the process on behalf of the Board with the assistance of the Management Committee and Underwriting Committee.

- Underwriting Authorities – approved written and signed underwriting authorities in place for all underwriters that are aligned to the syndicates' and company's business plans and individuals experience.
- Regional UW Quality Assurance Reviews – on a monthly basis, QA Team performs data and risk quality reviews to check that policy data and any subsequent MTAs are entered into UW systems completely and accurately.
- Formal independent peer review process in place for underwriting – independent reviewers take a sample size of all risks written within a month. A quarterly review meeting is held with the CUOs and any findings are reported to UWC and Risk Committee.

Catastrophe Risk

Arch employs a number of techniques to ensure that catastrophe exposure is managed and controlled within defined limits.

- Risk Appetites – with defined limits on exposure to material perils.
- Catastrophe reinsurance programmes to control retained risk.
- Underwriting guidelines to specify controls for individuals writing catastrophe exposed business (e.g. limits on geographical exposures).
- Catastrophe modelling (using the AIR system) to generate and analyse loss distributions at a granular level. This is supported by additional controls, such as:
    - Reconciliation between AIR and underwriting systems
    - Validation of Cat Models to ensure appropriateness of output for Arch's risk profile
    - Data checks to ensure that all exposures are appropriately included in estimates
- The Exposure Management Group (chaired by the CUO) reviews detailed exposure information each month where they receive further challenge, focusing on changes which have taken place, and access checks and validation carried out.
- Review by Committees – Executive Summaries are presented to the Underwriting Committee, Company Management Committee and Executive Risk Committee each quarter.

There are no planned material changes to risk mitigation, and we assume in our planning projections that reinsurance is generally renewed as expiring.

C.2.4 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.

A sensitivity test is run by changing a single assumption in the capital model in isolation while keeping other assumptions consistent. These sensitivity test have been carried out using the internal capital model as an approximation to both regulatory and economic capital requirements (both use standard formula). The below assumptions only impact the solvency capital requirement for both regulatory and economic capital, and the solvency ratio has been calculated with the current level of own funds.

Sensitivity Test	Total Own Funds		Net Adjusted Assets	
	Impact on SCR	Impact on Solvency Ratio	Impact on SCR	Impact on Solvency Ratio
Reserve volatility - pessimistic view	0.8%	-1.5%	0.8%	-1.2%
10% deterioration in all loss ratios	20.8%	-34.7%	20.8%	-27.4%
Pessimistic view of average large loss severity	8.8%	-16.3%	8.8%	-12.9%

The impact of above sensitivity tests are in line with the expectations due to the underwriting risk being the largest component of the SCR.

C.3 Market Risk

C.3.1 Key Risk Exposure

Market risk is defined to be the risk to the value of assets and liabilities arising from volatility in the level of market prices of the following:

- Interest rates
- Equities
- Property
- Credit spreads over risk free interest rates
- Currency exchange rates

The risk from limited diversification in the asset portfolio or from default of issuers of securities is also included within market risk.

The company’s investment strategy is designed to limit market risk through investments which are considered to be conservative high quality assets that reduce exposure. The current investment guidelines and approach focus on total return, preservation of capital and market liquidity. The duration of assets is designed to match the duration of liabilities which is around 2.5 years on average. The company does not invest in hedging or derivative financial instruments. The performance of investment managers is regularly reviewed to confirm adherence to these guidelines.

Exposure to interest rate risk arises from the investments in fixed interest securities. The company monitors interest rate risk by calculating the mean duration of the investment portfolio and of the policyholder liabilities. Any gap between the mean duration of the assets and the estimated mean duration of the liabilities is minimised by buying and selling fixed interest securities of different durations.

The company seeks to mitigate the currency risk by matching the estimated foreign currency denominated liabilities with assets denominated in the same currency. The company reviews currency asset and liability positions on a quarterly basis. This process is designed to align currency matching. In addition, as part of this process, currency trades may be made to maintain the desired currency net asset allocations.

C.3.2 Material Risk Concentrations

The material concentrations of securities are monitored regularly at Investment Committee meetings. The Company's largest exposures as at 31 December 2021 are Blackrock money market fund (£16.0 million or 13.5% of capital), Barclays Bank (£7.0 million or 6.0% of capital) and UK GILTs (£45.8 million or 38.7% of capital).

There are no material anticipated changes to risk concentrations over the coming year. However, it is recognised that the markets continue to be volatile, and the Investment Committee continues to monitor the exposures and investment strategy accordingly.

C.3.3 Market Risk Mitigations

A low risk investment strategy which closely matches liabilities by currency and duration is considered to be the main method of market risk mitigation. The Company does not use exotic or alternative arrangements such as derivatives to minimise market risk.

Arch outsources investment management to the Arch Group. This allows the Arch to benefit from economies of scale by being part of a substantially larger portfolio. Oversight is provided by the Finance Director, Investment Committee and the Arch Board.

Key risk management controls include:

- Investment Risk Appetite – Overall limits are put in place on the level of investment risk, and also on key (such as duration, credit quality and liquidity).
- Investment Risk Policy - The Investment Risk Policy sets out the sources of investment risk, investment objectives, function and committee oversight, appetites, controls, and the process for evaluation of new investment products.
- Triparty reconciliation investment - On a quarterly basis, Management Accountant performs a three-way reconciliation in excel of investment data which covers quantity and market values for all investment assets held by the Investment Account Service Provider, Custodian and Arch's Investment Accounting records.
- Formal Investment Strategy and Guidelines - The Investment Strategy sets out the high level objectives and is supported by detailed guidelines which Investment Managers operate under and approved by the Board.
- Investment Committee review and oversight of investment portfolio - The Investment Committee is the oversight Committee that ensures that Arch Europe's Investment Risk Policy is being applied and monitored.
- Reconciliation of investment journal to General Ledger - On a monthly basis, the Management Accountant/Head of Finance Operations verifies the accuracy of the posting of the monthly Investment Accounting journal

C.3.4 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.

A sensitivity test is run by changing a single assumption in the capital model in isolation while keeping other assumptions consistent. The below assumptions only impact the solvency capital requirement for both regulatory and economic capital, and the solvency ratio has been calculated with the current level of own funds.

Sensitivity Test	Total Own Funds		Net Adjusted Assets	
	Impact on SCR	Impact on Solvency Ratio	Impact on SCR	Impact on Solvency Ratio
50% increase in exchange rate volatility	0.0%	0.0%	0.0%	0.0%
All assets held in corporate bonds	0.4%	-0.7%	0.4%	-0.6%
1 notch decrease to all corporate bond ratings	1.4%	-2.7%	1.4%	-2.1%

The impact of above sensitivity tests is in line with the expectations and are not believed to have a material impact on the Company’s solvency.

C.4 Credit Risk

C.4.1 Key Risk Exposure

Credit risk is defined to be the risk of losses from the default of counterparties including reinsurers and third parties such as brokers and banks.

Exposure to credit risk arises from financial transactions with counterparties including debtors, borrowers, brokers, policyholders, reinsurers and guarantors. The company uses the credit ratings assigned to particular counterparties to measure credit risk. Credit risk is managed by our finance function.

Credit risk associated with our investments is included within the market risk category.

With regard to premium debtor risk, the company ensures that all brokers are subject to a due diligence protocol and that they have terms of business agreements in place. An approval system also exists for new brokers, and broker performance is regularly reviewed. System exception reports highlight trading with non-approved brokers, and the company’s credit control team regularly monitors the ageing and collectability of debtor balances. Large and aged items are prioritised.

To lessen the risk of the company’s exposure to any particular reinsurer, exposure limits by class of business are approved. On behalf of AIUK, ACGL has developed processes to formally examine all reinsurers before entering into new business arrangements, which are also considered at the company level. New reinsurers are approved by the Reinsurance Security Committee, which also reviews arrangements with all existing reinsurers at least annually. Vulnerable or slow paying reinsurers are examined more frequently.

In addition to the external reinsurance arrangements, there is also an inter-company quota share arrangement with 85% of the business written by AIUK ceded to Arch Re Ltd (Bermuda). Arch Re Ltd (Bermuda) holds collateral of at least 100% of the reinsurer obligations at any given time.

The collateral held by Arch Re Ltd (Bermuda) means that if it were to default, AIUK would be expected to be able to recover the owed recoveries. However, there still remains credit risk due to possibility of Arch Re Ltd (Bermuda) defaulting and the reinsurer obligations increasing afterwards.

C.4.2 Material Risk Concentrations

As noted in the earlier sections, the Company has in place an 85% quota share arrangement with ARL, which potentially exposes the business to a significant level of credit risk. This is mitigated through the use of a collateralised trust fund set up by ARL, with the Company being the sole beneficiary of the trust. Collateral of 100% of the reinsurer obligations is required at any given time, which means that if ARL were to default, the Company would be expected to be able to recover any outstanding balances through the trust. The trust fund deed's guidelines state the fund should have a surplus of 5% at all times.

We expect ARL to remain strongly capitalised, and the level of collateral held as well as the security of ARL is discussed quarterly by the Board.

The external ratings of ARL have been stable over the year in respect of Moody's at A2 (Outlook Stable), and have improved for S&P at A+ (Outlook Stable) and AM Best at A+ (Outlook Stable).

The material concentration of other reinsurers and other counterparty balances held are consistent with the risk exposure above and are monitored regularly at the Risk Committee meeting.

C.4.3 Credit Risk Mitigations

Key risk management controls include:

- Approval of Bank Payments - All payments go through a two tiered approval process.
- Monthly credit control report - The Credit Control Projects and Reporting manager produces a monthly credit control report, including all entities in the business.
- Monthly credit control report meetings with CFO - aged debt reports are prepared by the Group Credit Control Manager. These reports are reviewed by Finance Director/CFO during the monthly credit control review meeting to discuss aged debt and unallocated cash.
- Aged Payables Review - On a monthly basis, the Head of Finance Operations reviews and approves the AP Aging report.
- Vendor monitoring - A quarterly review of all payees and total amounts paid is undertaken by the CFO.
- Quarterly Review of KPI Report and Unallocated Cash - On a quarterly basis, the Group Credit Control Manager reviews the unallocated cash position.

C.4.4 Stress and Sensitivity Testing

Stress and scenario testing of credit 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.

A sensitivity test is run by changing a single assumption in the capital model in isolation while keeping other assumptions consistent. The below assumptions only impact the solvency capital requirement for both regulatory and economic capital, and the solvency ratio has been calculated with the current level of own funds.

Sensitivity Test	Total Own Funds		Net Adjusted Assets	
	Impact on SCR	Impact on Solvency Ratio	Impact on SCR	Impact on Solvency Ratio
10% increase in default probabilities	1.2%	-2.4%	1.2%	-1.9%
1 notch decrease to ARL credit rating	0.3%	-0.6%	0.3%	-0.5%
Intercompany quota share collateral reduced by 10% to 90% of reinsurer obligation	0.0%	-0.1%	0.0%	-0.1%

The sensitivities demonstrate that key variations in assumptions around the intercompany quota share arrangement, including the level of collateral held, do not have a material impact to the Company's solvency.

C.5 Liquidity Risk

C.5.1 Material Risk Exposure

Liquidity risk arises where cash may not be available to pay obligations when due. Liquidity risk is managed by our finance function. It is not modelled stochastically, and instead is calculated using stress and scenario tests.

Liquidity risk is mitigated through:

- Cashflow Monitoring
- Internal Quota Share
- Stress Tests

AIUK is exposed to daily calls on its available cash resources, principally from claims arising from its insurance business. Liquidity risk arises where cash may not be available to pay obligations when due, at a reasonable cost. The company's approach is to manage its liquidity position so that it can reasonably survive a significant loss event. This means that AIUK maintains sufficient liquid assets, or assets that can be translated into liquid assets at short notice and without capital loss, to meet expected cash flow requirements. These liquid funds are regularly monitored using cash flow forecasting to ensure that surplus funds are invested to achieve a higher rate of return. Regular cash flow monitoring ensures that maturing deposits are sufficient to meet cash calls.

The company controls liquidity through the 85% quota share reinsurance arrangement with Arch Re Ltd (Bermuda) that is settled quarterly, net and in arrears.

C.5.2 Risk Mitigation

Key risk management controls include:

- Cash flow forecast - Weekly cash flow projections are performed, matching income and outgoings in settlement currency to ensure short-term liquidity by currency.

- Trust fund review - the trust fund positions in relation to the inter-company quota share with ARL are reviewed by the financial controller. The trust funds must run at a 5% surplus as per internal benchmarks. If a shortfall is noted, ARL are informed that a top up is required.

C.5.3 Expected Future Profit

Expected profits included in future premiums ("EPIFP") are profits which result from the inclusion in technical provisions of premiums on existing (in force) business that will be received in the future, but that have not yet been received.

The table below shows the expected profit in future premiums ("EPIFP") at 31 December 2021 were £17.8million (2020: £13.6 million). This represents the future profits expected.

Expected profit in future premium	2021 £'000	2020 £'000
Medical expenses	-	-
Income protection	-	-
Marine, aviation and transport	1,496	712
Fire and other damage to property	10,886	10,882
General liability	4,174	1,899
Motor other	722	-
Motor liability	-	19
Credit and Surety	507	75
Casualty Reinsurance	11	-
Total	**17,796**	**13,587**

C.5.4 Operational Risk

C.5.5 Key Risk Exposure

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

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

Operational Risk also includes:

- **Group Risk**: Risks related to unregulated entities within the ACGL Group, implicit or explicit exposure to losses throughout the group ("contagion risk"), risks related to intercompany 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; and
- **Reputational Risk**: The potential adverse impact of an economic loss through deterioration of reputation, credibility or standing with insurers and coverholders, other customers, brokers and the investor community.

The Company considers regulatory breaches to be the most material Operational Risk, which is consistent with management's view and reflects the current regulatory environment. Additionally, at the time of writing, operational risks which may be potentially heightened due to the COVID-19 pandemic, are being reviewed on an ongoing basis, including those relating to people, processes and governance.

No historical loss data is available regarding regulatory breaches for the Company. The largest stress test is consistent with one of our reverse stress tests, which is an antitrust violation for price fixing with a return period of 1 in 200 years, leading to a loss of £5.0 million.

The Company applies significant endeavours to avoid legal, regulatory or compliance failure or impairment which may lead to regulatory censure and/or financial penalty and/or harm to its reputation or franchise. A number of risk appetites are discussed quarterly by the Risk Committee, including:

- All agreed actions with the PRA are addressed in a timely manner;
- Conduct risk dashboard; and
- No breaches in respect of financial crime control design or operational sufficiency.

Management has also identified the following other key operational risks:

- Inadequate claims handling;
- Legal, litigation, 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; and
- Risks external to the Company but internal to the ACGL Group.

Those risks classified under the Operational Risk profile have been identified, assessed and articulated in the Risk Register. Relevant risk and control owners report to the Audit and Risk Committee and are responsible for identifying new, emerging or changing risks and any consequent control changes required to realign the risks with the risk appetite.

With respect to Legal Risk, the LRCO has the responsibility for monitoring new and pending legislation in the UK, 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.

Operational risk is defined to be the risk of loss arising from inadequate or failed internal processes, or from personnel and systems, or from external events. Operational risk includes legal and regulatory risks but excludes risks arising from strategic decisions, as well as reputation risks. The key driver of regulatory risk is an insufficient understanding of legislative and regulatory requirements/mandates. Our assumption is that potential changes in legislative and regulatory requirements are effectively communicated by the governing bodies.

Operational Risk is managed through a combination of a (i) Robust risk governance and oversight provided by the Board Risk Committee, Executive Risk Committee and various management committees. And (ii) appropriate framework with the supporting systems, policies/procedures, process controls and reporting structures.

C.5.6 Material Risk Concentrations

It is noted that we have a number of third party vendors including Global Services in the Philippines. We do not consider any one of these individual third parties to lead to a material level of operational risk concentration.

C.5.7 Operational Risk Mitigations

Key risk management controls include:

- Operational Risk Processes and procedures – There are a various monitoring processes and procedures in place that provide oversight on adherence to internal policies and regulatory requirements. These include internal control certification on controls, risk management oversight via risk reviews and assessments, monitoring of key metrics, compliance oversight and monitoring alongside independent reviews performed by the Internal Audit function.
- Management Oversight – There are a number of management oversight committees in place that oversee the matters relating to operational risk.
- Regulatory Compliance – An independent and dedicated Compliance function is in place which is responsible for ensuring Arch remains compliant with its regulatory requirements. In addition, the function analyses regulatory developments and trends that may impact Arch and are communicated to the business. The function also performs regular thematic reviews.
- Internal Audit – Provides independent assurance across the risk and control framework.

The Risk Function also maintain the Arch's Risk Event and Near Miss Log. An incident can be an occurrence, several occurrences or even a non-occurrence where there is an actual consequence to the company. These usually have causes which could be from a control not operating effectively, lack of control or a cause which cannot be managed or foreseen.

An efficient loss control mechanism that monitors incidents and near misses across the organisation will allow Arch to continuously refine processes, strengthen the risk and control framework, potentially reduce costs and limit any reputational damage. Reported Risk Events are presented to the Board and Executive Risk Committees.

C.5.8 Stress and Sensitivity Testing

Operational Risk is included in the Standard Formula. However, as part of its ORSA process, the Company also considers the following:

A sensitivity test is run by changing a single assumption in the capital model in isolation while keeping other assumptions consistent. The below assumptions only impact the solvency capital requirement for both regulatory and economic capital, and the solvency ratio has been calculated with the current level of own funds.

	Total Own Funds		Net Adjusted Assets	
Sensitivity Test	**Impact on SCR**	**Impact on Solvency Ratio**	**Impact on SCR**	**Impact on Solvency Ratio**
10% increase in largest operational stress tests	0.2%	-0.4%	0.2%	-0.3%

The impact of above sensitivity test is in line with the expectations and is not believed to have a material impact on the Company's solvency.

C.6 COVID-19 Risks

On 11 March 2020, the World Health Organisation declared a pandemic in relation to the outbreak of the COVID-19 virus.

The global pandemic resulting from the novel coronavirus (including variants of the coronavirus such as Delta and Omicron, "COVID-19") has disrupted the global economy, causing a significant slowdown in economic activity around the world. Businesses around the world, including ours, have been impacted by the restrictions on travel, some business activities and non-essential services and the reverberations of severe curtailment of normal activities. Since the start of the pandemic, we have taken proactive steps to ensure the health and safety of our employees with the majority of our employees working from home to maintain business continuity. Our employees and businesses have adapted to the changing needs of our clients, customers and business partners. We remain committed to continuing to carry on our business activities without interruption during these challenging times.

In addition, on 1 May 2020, the UK Financial Conduct Authority (FCA) announced that it would commence court proceedings against eight insurers (including the Company) in order to clarify key uncertainties in the wider market around the response of Business Interruption cover to the COVID-19 pandemic. Following initial rulings by the Court and High Court, on 15 January 2021 the Supreme Court delivered its judgement, substantially allowing the FCA's appeal on behalf of policyholders. Following this, the Company has focused on ensuring that relevant claims are adjusted and settled as fast as possible and in line with the judgment.

Whilst there remains some residual uncertainty for the insurance industry as to the final impact of this ruling on impacted policies, the Company has kept its COVID-19 reserves under review and continues to believe them to be adequate.

C.7 Emerging Risks

Identifying, planning for and controlling emerging risks is an important part of our risk management activity across all aspects of our business, including underwriting, operations and strategy. We make a significant effort to try to identify potential material emerging threats to the Arch. It is a core responsibility of each of our committees and we believe all reasonable steps are taken to minimise the likelihood and impact of potential emerging risks and to prepare for them in the event they occur. In particular, the Underwriting Committee, Investment Committee and Risk Committee have considered current emerging risks.

The Emerging Risk Group (a sub-group of the Underwriting Committee) meets quarterly to discuss emerging risks with escalation to the Underwriting Committee and Risk Committee. The Emerging Risk Group also partly reports into Arch Group's Emerging Risk Committee.

A number of emerging risks have been monitored over 2021 and reported to the Underwriting Committee and Risk Committee including, climate change, cyber risk, geomagnetic storms and severe mental health deterioration.

C.8 Any Other Information

Russian invasion of Ukraine

The events related to the recent Russian invasion of Ukraine have resulted in economic, financial, sectoral and other targeted sanctions issued by government and regulatory bodies in the U.S., U.K., European Union and other countries. Arch Capital Group Ltd. and its subsidiaries (“Arch”) must comply with all applicable sanctions, trade controls and related laws and regulations in the jurisdictions where we operate. Arch is closely monitoring our underwriting and investment portfolios in light of these new sanctions. We continue to evaluate our exposure to these sanctions, as well as the possible impact of these events on the global economy and financial markets. While the impact on the business remains uncertain, Arch is actively monitoring the situation in Ukraine with a particular focus on the holdings and valuation of the Company’s investments, incurred losses, and premium volume, all of which are potentially impacted by the increased volatility and uncertainty. Due to the recentness of these events, we are unable to estimate the effects of these matters on our prospective results of operations or financial condition.

SECTION D Valuation for Solvency Purpose

The table below shows the balance sheet as at 31 December 2021 on a FRS 102 basis, Solvency II basis and the adjustments to each line.

Details of the valuation changes are contained in the sections **D.1 to D.5**.

Balance Sheet as at 31 December 2021 - £'000s	**UK GAAP**	**Adjustments**	**Solvency II**	
Deferred acquisition costs	51,179	(51,179)	-	D1.8
Holdings in related undertakings, including participations	40,500	7,414	47,914	D1.2
Equities - unlisted	-	-	-	
Government Bonds	72,201	199	72,400	D1.3
Corporate Bonds	29,222	108	29,331	D1.3
Collateralised securities	2,166	2	2,167	D1.3
Collective Investments Undertakings	16,461	(0)	16,461	D1.3
Reinsurance recoverables from: Non-life and health similar to non-life	628,053	(202,938)	425,116	D2
Insurance and intermediaries receivables	82,410	(69,216)	13,194	D1.4
Reinsurance receivables	21,451	-	21,451	
Receivables (trade, not insurance)	3,267	-	3,267	D1.5
Cash and cash equivalents	14,702	(0)	14,702	D1.6
Any other assets, not elsewhere shown	11,604	(15)	11,588	D1.7
Total assets	**973,219**	**(315,627)**	**657,592**	
Technical provisions - non-life	697,934	(195,960)	501,973	D2
Reinsurance payables	79,107	(79,107)	-	D3.2
Payables (trade, not insurance)	25,915	-	25,915	D3.1
Subordinated liabilities	15,500	-	15,500	D4
Any other liabilities, not elsewhere shown	66,771	(55,506)	11,265	D3.1 / D3.3
Total liabilities	**885,227**	**(330,574)**	**554,653**	
Net Assets	**87,991**	**14,948**	**102,939**	

D.1 Assets

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

D.1.1 Deferred tax assets

As at 31 December 2021, the Company has recognised £nil (2020: £nil) deferred tax assets being the temporary differences arising between the tax bases of assets and liabilities and their carrying amounts under Solvency II. Deferred tax assets are reviewed at each reporting date.

The measurement principles for deferred taxes are consistent between UK GAAP and Solvency II. Deferred tax assets are recognised to the extent that it is probable that future taxable profits will be available against which temporary differences can be utilised. The valuation difference relates to the change in the value of deferred tax, caused by the impact of adjustments made to balance sheet items in compliance with Solvency II regulations.

D.1.2 Holdings in related undertaking

As at 31 December 2021, the Company valued its investment on its wholly owned subsidiary, AEIS, at £47.9 million (2020: £38.1 million) on a Solvency II basis. The valuation is based on adjusted equity method where the value of the investment is determined as the Company's share of AEIS' net assets. The value of AEIS comprises of a loan to AIGL and the remaining net assets of the entity excluding intangibles. The valuation of the adjusted equity method is consistent with Solvency II rules, where an intangible asset has been excluded from the net assets.

The value of the holdings in the related undertaking is different from the FRS 102 valuation, where the value was stated at the lower of cost less impairment or recoverable amount, which is £31.0 million.

In addition to the investment in its wholly owned subsidiary, the Company is party to a licensing agreement with AIGL permitting the Company to renew the UK commercial lines business acquired by AIGL from the Ardonagh Group in 2019.

The Company's subsidiary holds a £30.1 million (2020: £30.1 million) loan receivable, that was issued to AIGL to provide funding for the above-mentioned acquisition.

D.1.3 Investments (other than holding in related undertaking)

As at 31 December 2021, the Company has a total of £120.4 million (2020: £77.1 million) investment assets that have been valued in accordance with FRS 102 fair value model. The Company's investments are externally managed. The Company receives quarterly reports detailing the underlying securities held in the investment funds. 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 Investment Committee every quarter.

The investments are valued at fair value under FRS 102 and Solvency II based on market prices at the reporting date, which are quoted prices in active markets for identical assets. The investments under Solvency II include accrued interest which under FRS 102 is reported under other assets.

The valuation of investments is consistent with the accounting valuation under FRS 102.

D.1.4 Insurance and intermediaries receivables

Insurance and intermediaries receivables balance represents premiums owed from policyholders. As at 31 December 2021, the Company has a total of £13.2 million (2020: £10.5 million) of outstanding premiums. Outstanding premiums are valued at amortised cost as an approximation to 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 FRS 102. The deferred premiums held under FRS 102 are transferred from insurance and intermediaries to the technical provisions in the calculation of the Solvency II balance sheet.

D.1.5 Reinsurance receivables

The reinsurance receivables balance represents recoverables from reinsurers on settled claims. As at 31 December 2021, the Company has a total of £21.5 million (2020: £13.1 million) of reinsurance receivable. Reinsurance receivables are valued at amortised cost as an approximation to fair value and due to the short-term nature of the receivable no adjustments to valuation are required. The valuation of reinsurance receivables is consistent with the accounting valuation under FRS 102.

D.1.6 Cash and cash equivalents

As at 31 December 2021, the Company has £14.7 million (2020: £12.4 million) held as cash and cash equivalents with £7.0 million (2020: £6.6 million) in the UK. The UK bank accounts are held in major currencies which are GBP, USD, EUR and AUD. The monies held in Germany, Italy and Spain bank accounts are denominated in EUR. The non-GBP balances are translated into GBP at the balance sheet closing rate.

There is no valuation difference between FRS102 and Solvency II for cash and cash equivalents.

D.1.7 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 FRS 102.

D.1.8 Deferred acquisition costs

In the financial statements, acquisition costs, which represent commission and other related expenses, are deferred over the years in which the related premiums are earned. The deferred expenses relate to commissions, underwriter salaries, office costs, and marketing which are deferred based on a ratio between bound and quoted policies by line of business.

The Solvency II balance sheet is prepared on the basis that best estimate future cash flows on servicing (re)insurance contracts are included in the calculation of SII Technical Provisions. Therefore, deferred acquisition costs are excluded from the Solvency II balance sheet.

D.2 Technical Provisions

D.2.1 Results summary

A summary of the technical provisions for the Company as at 31 December 2021 is set out below, split by material lines of business:

	Net Best Estimate Claims Provision	Net Best Estimate Premium Provision	Risk Margin	Net Technical Provisions	% Of Net TP
	£'000	£'000	£'000	£'000	%
Medical Expenses	(23)	1	0	(22)	0%
Income Protection	812	(171)	82	724	1%
Motor Vehicle Liability	-	(26)	4	(21)	0%
Other Motor	114	815	237	1,166	2%
Marine, Aviation and Transport	6,315	2,306	955	9,575	12%
Fire and Other Damage to Property	14,745	1,647	1,992	18,384	23%
General Liability	33,199	6,803	4,754	44,755	59%
Non-Proportional Casualty	43	83	14	139	0%
Credit and suretyship insurance	80	1,864	212	2,156	3%
Total	**55,285**	**13,322**	**8,250**	**76,856**	**100%**

The total technical provisions are £76.9 million. This consists of £55.3 million in respect of the claims provision (earned business) and £13.3 million in respect of the premium provision (unearned business). A further £8.3 million is in respect of the risk margin.

The process of valuing AIUK's Technical Provisions ("TPs") begins with actuarial valuation of our FRS 102 basis reserves for loss and loss adjustment expenses ("Loss Reserves"). Cash flows associated with those Loss Reserves, along with unearned premium reserves and provisions for other components of TPs, are converted to an economic basis using the approach outlined below.

Technical provisions arising out of the COVID-19 pandemic in respect to premium provisions included in the table above amount to less than £0.1 million on both gross and net basis as most unearned had moved to the earned portion of the TPs' after a year of claims development.

D.2.2 Calculation Methodology

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

The calculations for the Solvency II technical provisions are based on the existing FRS 102 valuation, which in itself contain key sources of estimation uncertainty. The most significant of these involves the valuation of outstanding claims and, in particular, the provision for claims incurred but not reported.

The processes used to determine the assumptions on which the measurement of insurance contract provisions is based, actual assumptions used, the effects of changes in assumptions, and an analysis of sensitivity to changes in assumptions are described below.

(i) Process used to determine the assumptions for measuring insurance contracts

Loss Reserves are established to provide for loss adjustment expenses and represent the estimated expense of settling claims, including legal and other fees and the general expenses of administering the claims adjustment process. Periodically, adjustments to the reported or case reserves may be made as additional information regarding the claims is reported or payments are made. IBNR reserves are established to provide for incurred claims which have not yet been reported to an insurer or reinsurer at the balance sheet date as well as to adjust for any projected variance in case reserving. IBNR reserves are derived by subtracting paid losses and loss adjustment expenses and case reserves from estimates of ultimate losses and loss adjustment expenses. Actuaries estimate ultimate losses and loss adjustment expenses using various generally accepted actuarial methods applied to known losses and other relevant information. Like case reserves, IBNR reserves are adjusted as additional information becomes known or payments are made. The process of estimating reserves involves a considerable degree of judgement by management and, as of any given date, is inherently uncertain.

Ultimate losses and loss adjustment expenses are generally determined by extrapolation of claim emergence and settlement patterns observed in the past that can reasonably be expected to persist into the future. The Company uses several methods for determining its reserves. These methods generally fall into one of the following categories or are hybrids of one or more of the following categories:

Expected loss methods – these methods are based on the assumption that ultimate losses vary proportionately with premiums. Expected loss and loss adjustment expense ratios are typically developed based upon the information derived by underwriters and actuaries during the initial pricing of the business, supplemented by industry data available from organisations, such as statistical bureau and consulting firms, where appropriate. These ratios consider, among other things, rate increases and changes in terms and conditions that have been observed in the market. Expected loss methods are useful for estimating ultimate losses and loss adjustment expenses in the early years of long-tailed lines of business, when little or no paid or incurred loss information is available, and is commonly applied when limited loss experience exists for a company.

Historical incurred loss development methods – these methods assume that the ratio of losses in one period to losses in an earlier period will remain constant in the future. These methods use incurred losses (i.e. the sum of cumulative historical loss payments plus outstanding case reserves) over discrete periods of time to estimate future losses. Historical incurred loss development methods may be preferable to historical paid loss development methods because they explicitly take into account open cases and the claims adjusters' evaluations of the cost to settle all known claims. However, historical incurred loss development methods necessarily assume that case reserving practices are consistently applied over time. Therefore, when there have been significant changes in how case reserves are established, using incurred loss data to project ultimate losses may be less reliable than other methods.

Bornhuetter-Ferguson ("B-F") paid and incurred loss methods – these methods utilise actual paid and incurred losses and expected patterns of paid and incurred losses, taking the initial expected ultimate losses into account to determine an estimate of expected ultimate losses. The B-F paid and incurred loss methods are useful when there are few reported claims and a relatively less stable pattern of reported losses.

Additional analyses – other methodologies are often used in the reserving process for specific types of claims or events, such as catastrophic or other specific major events including COVID-19. These include vendor catastrophe models, which are typically used in the estimation of Loss Reserves at the early stage of known catastrophic events before information has been reported to an insurer or reinsurer, and analyses of specific industry events, such as large lawsuits or claims.

The selection of a method to determine the Company's reserves is driven by not only the characteristics of the lines of business, but also by the development stage of the years of account and the availability, credibility and relevance (for future projection) of in-house or benchmark data. For short-tail lines of business, such as Property and Offshore Operating, reserves will mostly be calculated using the expected loss ratio method for the most recent year of account, unless early loss experience necessitates an upward deviation, before moving to the more data-driven methods for more mature years. For long-tail lines of business, typically the Casualty and D&O classes, reflecting slower loss emergence and settlement, the expected loss ratio method is usually applied for longer than 1 year, unless early loss experience necessitates an upward deviation, before allowing for benign claims experience using more data-driven methods.

We have reserved for losses arising from the COVID-19 pandemic by assessing the likely severity and frequency of policies potentially exposed. The assessment is more uncertain because it is a unique event. This assessment is reviewed at least quarterly. The majority of exposure arises from the UK business interruption classes of business.

To convert the reserves calculated under FRS 102 methodology set out above, the same methodology is applied to each homogeneous risk group and follows the steps laid out below:

- Gross and net best estimates are estimated separately for each underwriting year. Each underwriting year is then split into earned or unearned business. Relevant payment patterns are applied to these different blocks according to the respective state of their development. The outputs are gross and net outflows for claims payments, separately for claims provision and premium provision;
- Premiums receivable are derived from the analysis of debtor cash flows, i.e. looking at the not yet due debt collectables. Estimates of not yet due debt collectables are used directly as cash inflows. The output are gross cash inflows for premiums receivable for both the claims and premium provision. It is worth noting that debt due but not received is excluded from the technical provisions and is instead included within insurance receivables on the balance sheet. In addition, the calculations also allow for future reinsurance costs which correspond to recoveries being made in respect of claims;
- A number of adjustments are allowed for in the steps above:
    - The business contractually agreed before the balance sheet date, but incepting after the balance sheet date. This is referred to as Written But Not Incepted ("WBNI") business; and
    - Events Not In Data ("ENIDs"): Solvency II requires the Best Estimate to include allowance for "all possible outcomes", e.g. latent claims or extreme high severity, low probability claims. An ENID provision is calculated to allow for all possible scenarios where historical data may be lacking
    - Removal of margins: Removal of FRS103 prudent margins.
- Cash outflows for reinsurance premiums payable/net premiums receivable are based on gross cash flows to which net or ceded ratios are applied to both premiums and claims. These net

/ceded ratios are based on the ratios derived in the FRS 102 reserve exercise and follow the principle of correspondence as set out in **Section D.2.6**;

- Different types of expenses (acquisition costs, unallocated loss adjustor expenses, and administration expenses) are projected and future cash flows are derived from this analysis. The output is expense cash outflows separately for claims provision and premium provision;
- An allowance for cash inflows stemming from ceded reinsurance income is also made;
- An adjustment is carried out to allow for reinsurance counterparty default. The output is cash outflows for reinsurance counterparty default, separately for claims provision and premium provision;
- The risk margin is calculated at a total level by running off the one-year SCR over future years and multiplying the cash flows by a cost of capital of 6% per annum as prescribed by Article 39 of the Commission Delegated Regulations (EU) 2015/35; and
- All future cash flow series above are discounted using payment patterns derived from the reserving process and the sum of these discounted cash flows is calculated for each series. These sums are then added together to derive the net best estimate liabilities. The discount rates used are those prescribed by EIOPA.

Key Simplifications

The key simplifications made in the technical provision calculations are set out below:

- **Risk margin methodology** – Uses an approximation for the whole SCR for each future year, with a decayed run-off method. This method is used because a proportionate approach does not adequately capture the run-off, so a longer pattern is used to reflect relative reserve risk increasing as the size of the portfolio reduces; and
- **Calculation of recoverables** – as the timings of gross claim payments and corresponding recoveries are not markedly different, it is assumed that they correspond and projections use the timing of direct payments.

Whilst there are a number of limitations identified in the calculations of the technical provisions, there were no material uncertainties identified in the technical provisions process. All expert judgments are supported by relevant and appropriate data, and exercised by recognised experts within the Company.

D.2.3 Impact of Reinsurance

The held provisions for Solvency II correspond to the probability-weighted average of all future cash flows including cash flows recoverable from reinsurance contracts and special purpose vehicles. This takes account of the time value of money, using the relevant risk-free interest rate, and the adjustment for the expected losses due to the default of the counterparty (i.e. bad debt).

Recoverables from reinsurance contracts are shown separately on the asset side of the balance sheet (as “recoverables from reinsurance contracts”). Recoveries due on settled claims do not sit within the technical provisions, i.e. those where collection notes have been sent out but not received – reinsurance receivables.

Calculation of amounts recoverable from reinsurance contracts are performed under the same principles as for calculation of the gross best estimate. Risk margins are not required in respect of reinsurance and special purpose vehicle recoverables, as risk margins are calculated at a net level.

Gross and net best estimate reserves are estimated separately for each underwriting year. Reinsurance cash flows are then derived as the difference between gross and net cash flows.

Reserves are calculated on both gross and net (post internal quota share) bases. The net figures are produced in two stages:

- Firstly applying all external reinsurance; and
- Secondly applying the intercompany quota share (85% placement).

Cash inflows stemming from ceded reinsurance income are calculated as a factor of net premiums.

In addition, the principle of correspondence underlying the calculation of reinsurance recoveries is also considered.

D.2.4 Pre-Intercompany Quota Share

All cash flows which are calculated pre-intercompany quota share (i.e. after applying only the external reinsurance) are based on those in the net FRS 102 reserves. The calculations are consistent with net to gross ratios used in the FRS 102 reserving exercise (i.e. historical ratios), with different ratios applied to claims and premiums.

The pre-intercompany quota share cash flows are adjusted for the following:

- Ceded percentages of the quota share are applied for claims and premium cash flows. The ceded percentages are based on the actual percentages defined by the quota share; and
- Ceding commission cash flows are based on the ceded premium for the quota share. The cash flows are calculated by applying the current ceding commission percentage to the ceded premium amounts.

Counterparty Default

The expected loss due to the default of reinsurance counterparties is a small element within the technical provision calculations relating to bad debt. Reinsurance recoverables are calculated assuming no counterparty default. An adjustment for counterparty default is then explicitly calculated using S&P default rates and applied separately.

D.2.5 Treatment of Future Premiums

Future premiums, not yet due, are excluded explicitly from the Solvency II economic balance sheet and are instead included within the technical provisions. These premiums consist of four components:

- Premiums receivable for incepted policies included in the actuarial dataset
- Premiums receivable for incepted policies not included in the actuarial dataset ;
- WBNI premiums receivable; and
- Premiums receivable allowing for future reinsurance costs which relate to unearned business written to date.

Incepted future premiums included in the actuarial dataset are taken from aged debt reports which include splits of earned and unearned premiums. Where splits between earned and unearned premiums are unavailable, the uncertainty is addressed by applying average percentages instead. Future premiums receivable are not required to be fully allocated to premium provisions, as premium cash flows can also relate to earned business. These premiums are also allocated to underwriting years and lines of business based on the information in the aged debt reports.

Incepted future premiums not included in the actuarial dataset are taken from a financial data report showing the premiums written in the one month. WBNI premiums receivable are calculated using the WBNI uplift percentage against the expected annual premium as set out in the business plan for the following year. The WBNI uplift percentage is an uncertain amount and is estimated using historical data analysis.

Ceded future premium is included as a direct input, rather than calculated using gross premiums and net to gross ratios. This is because premium receivable amounts do not necessarily correspond with premium payable balances. Within the economic balance sheet, an adjustment is also made for reinsurance balance payable not yet due. Without this adjustment, reinsurance liabilities would be double counted.

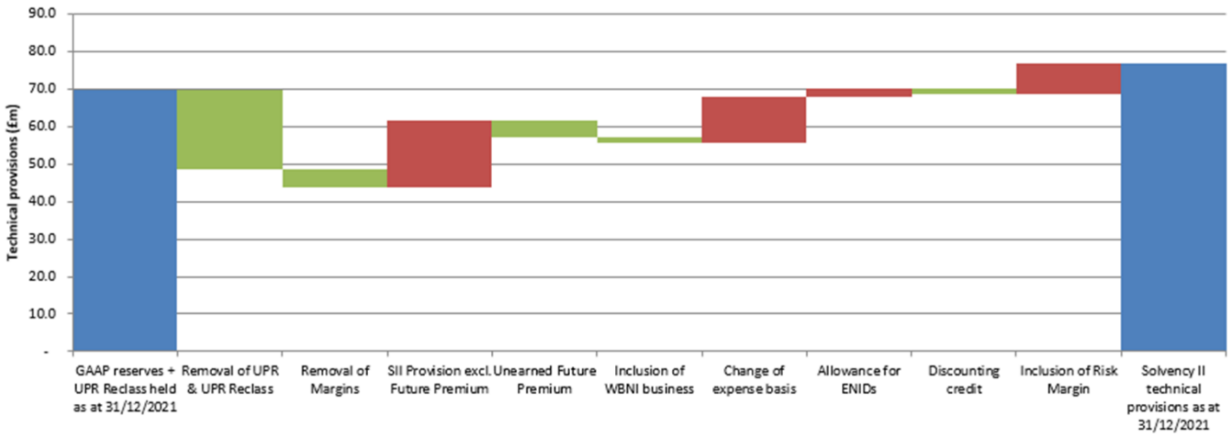
In addition, the principle of correspondence is considered when carrying out the calculation of reinsurance recoveries. When considering the contracts to be included, there should be correspondence between the gross inwards claims and the reinsurance recoveries included within the valuation. This includes the cost of future reinsurance cover not yet bought that will cover existing inwards contracts (e.g. losses occurring cover incepting in the following year). The additional reinsurance costs calculated for each line of business are allowed for by adjusting the ceded future premium amounts in respect of unearned business subject to minimum deposit premium terms per contract.

D.2.6 Material Differences between FRS 102 and Solvency II

Whilst some of the approaches and techniques applied under Solvency II are similar to those followed under the existing FRS 102 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 technical provisions – for example 1 January renewals entered into prior to a 31 December 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 Solvency II lines of business.

The waterfall chart below sets out the movement analysis between FRS 102 and Solvency II for the Company as at 31 December 2021:



Each of the above Solvency II adjustments are independent and discreet in the calculations.

(i) Removal of 100% UPR & UPR reclass (-£21.3 million).

(ii) Removal of margins (-£5.0 million). This is removal of any implicit margin.

(iii) Solvency II provisions on unearned exposures (+£13.6 million). An increase to the technical provisions due to the intercompany quota share element of claims payable from December 2021 included in technical provisions in addition to a small loss on future premiums.

(iv) Inclusion of unincepted business (-£1.4 million). A decrease to the technical provisions which corresponds to a small profit on the WBNI business.

(v) Change of expense basis (+£11.9 million). The adjustment reflects the additional expenses that would be incurred to service existing insurance liabilities.

(vi) Allowance for ENIDs (+£2.3 million). A small increase to the technical provisions due to an allowance for events not in data.

(vii) Discounting credit (-£1.5 million). Application of risk free discount rates, which leads to a decrease in the technical provisions.

(viii) Inclusion of risk margin (+£8.3 million). An amount equivalent to a theoretical level needed to transfer the obligations to another insurance undertaking.

D.2.7 Assumptions and uncertainty

The most material sources of uncertainty arise from the FRS 102 calculation. The main assumptions used in the technical provisions other than those in the GAAP reserves include Events Not In Data (ENIDs) and Written But Not Incepted business (WBNI).

Removal of Margins

The TPs, include a removal of implicit margin. The rationale for removing the implicit margin is to move from a Prudent Best Estimate ("PBE") TP reserving methodology to a True Best Estimate ("TBE") TP reserving methodology.

To quantify the implicit margin, standard market practice would be to equate the implicit margin to the margin over the Statement of Actuarial Opinion ("SAO") reserves. The benefit of applying this approach is that the quantum of the implicit margin is based on estimations performed by an independent third party. The key draw-back of this approach is that the third party actuaries will be less familiar with the business, apply a more mechanical approach to reserving and would usually react quite significantly to large losses, which can result in an estimate that is too volatile to reflect in Solvency II Technical Provisions.

Therefore, instead of quantifying the implicit margin by equating it to the margin over the SAO, the Company has adopted a different approach. The Company's reserving actuaries have completed a separate reserving exercise, which in comparison to the UK GAAP reserving process uses the same data, same level of information and the same personnel. However, rather than projecting a PBE, the actuaries project a TBE, a less conservative estimate, with a guiding principle that by reserving at that level, favourable and unfavourable PYD would be expected with equal probability. Fixing as many variables as possible, i.e. data, detailed knowledge of the business and personnel, and only changing the level of prudence applied, the quantification of the implicit margin as the difference between the two approaches is considered to create a significantly more accurate result than using the margin over the SAO.

Events Not In Data

ENIDs are low frequency/high severity claims not captured in the data. We add an explicit amount, or load, to the calculations to take account of ENIDs. The ENID loadings for each line of business are derived using a truncated distribution approach. This methodology is based on the true mean of a reserve distribution being underestimated as it will only include information which is realistically foreseeable. If an assumption is made about the level at which events are realistically foreseeable then derived uplifts can be applied to estimate a mean allowing for incomplete information.

Using stochastic reserving techniques and appropriate fitting algorithms, we determine that the Company's best estimate reserves are log-normally distributed.

The calculated uplifts are then validated using expert judgement from the risk management and underwriting teams to ensure appropriateness of the assumptions. Uplifts can be adjusted based on this expert judgement, e.g. if there has been significant experience of tail events or relatively benign experience for a particular class of business.

We validate our selection by comparing them to benchmark market data and make adjustment if our selections are believed to be materially out of line with the market. In addition we perform sensitivity tests to gauge the materiality of this assumption. The current sensitivity test shows that removing the ENIDS would approximately reduce the TPs by 3.0%.

Written But Not Incepted business

This relates to the business contractually agreed before the balance sheet date, but incepting after the balance sheet date. This is also referred to as unincepted business. Unincepted uplifts are calculated separately for each line of business using historical Company data. Historical policy data is used to calculate what the previous unincepted uplifts have been for previous years.

The unincepted business sensitivities are applied to understand the materiality of the assumptions and to validate the application of unincepted business uplifts in the calculations. Removing the calculations for unincepted business decreases the premium provision by approximately 11%. This is because the unincepted business is believed to be profitable.

D.3 Other Liabilities

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 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 assets.

The valuation of other assets and non-insurance receivables is consistent with the accounting valuation under FRS 102.

D.3.2 Reinsurance Payables

Under Solvency II the reinsurance payables are transferred from the FRS 102 balance sheet and reported as part of the technical provisions. The reinsurance payables under Solvency II is reported as nil. (See section **D.2** for information on TPs)

D.3.3 Deferred ceded acquisition costs

In the financial statements, ceded acquisition costs, which represent commission and other related expenses, are deferred over the years in which the related reinsurers' share of premiums are earned.

The 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.4 Subordinated liabilities

The subordinated liabilities are in respect of the subordinated loan between ACFI and AIUK. The total subordinated liabilities are now £15.5 million (2020: £15.5 million). Under Solvency II subordinated liabilities are measured on a fair value basis whilst under FRS102 they are measured at amortised cost.

Subordinated liabilities	Lender	Issue date	Maturity date	2021 £'000	2020 £'000
Medical expenses	Arch Capital Finance (Ireland) Limited	15/06/2019	15/06/2029	8,000	8,000
Income protection	Arch Capital Finance (Ireland) Limited	29/12/2020	29/12/2030	7,500	7,500
				15,500	**15,500**

D.5 Alternative Methods of Valuation

No alternative methods for valuation were used in 2021.

D.6 Any Other Information

No other information to report as of 31 December 2021.

SECTION E Capital Management

Overview

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 breached 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 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;
- **Investment 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 in a timely manner and at a reasonable cost;
- **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; and
- **Risk Management Function**: Responsible for maintaining the internal capital models and Standard Formula calculation, which amongst other uses, produce the economic and solvency capital requirements for AIUK.

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. In the event that the Company's capital is below the SCR, the Company will communicate to the PRA immediately together with a proposed remediation plan.

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

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

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

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

- Additional capital sourced from ACGL Group through contributed capital, capital loan or additional reinsurance arrangements;
- Purchasing external reinsurance;
- Changing mix to less capital intensive lines of business;
- Merging with cash rich partner;
- Sale of business / blocks of business; and
- Management buyout by current management team with corporate finance support to raise new third party capital.

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

It should be noted that the estimated timeframes above would be expected to be longer in a stressed scenario. The provision of additional capital by ACGL and capital relief by means of intragroup reinsurance is not guaranteed. The current quota share contract provides for a continuous contract terminable on 12 months' notice. As notice is customarily given to ensure that the terms of the reinsurance are agreed on a commercial and arm's length basis, it has been agreed that the Company may exercise an option to extend the period of the reinsurance by one year in the event of unsuccessful renegotiation, in order to enable an orderly transition to alternative funding.

During 2021 the definition of the economic capital requirement continued to use "adjusted net assets basis" using the Standard Formula SCR, in line with the commentary in Section E.1. Previously in 2018 economic capital requirements were based on a tail value at risk calculation using the internal capital model ultimate SCR.

The "adjusted net asset basis" is an additional, internally applied, more prudent measure, that the Board use to monitor solvency, and is not part of the requirement of Solvency II. It is reviewed as part of the Company's internal governance processes but is unaudited.

E.1 Own Funds

The Company's own funds are summarised in the table below:

	Tier 1	Tier 2	Tier 3	2021 Total Own Funds	2021 Adjusted net asset Approach *	2020 Total Own Funds	2020 Adjusted net asset Approach *
	£'000	£'000	£'000	£'000	£'000	£'000	£'000
Paid-In Ordinary Share Capital	50,000	-	-	50,000	50,000	50,000	50,000
Other capital contribution	67,500	-	-	67,500	36,500	57,500	26,500
Reconciliation Reserve	(14,561)	-	-	(14,561)	(14,561)	(15,571)	(15,571)
Subordinated liabilities	-	15,500	-	15,500	15,500	15,500	15,500
Total Own Funds After Deductions	**102,939**	**15,500**	**-**	**118,439**	**87,439**	**107,429**	**76,429**
Total Eligible Own Funds to Meet the SCR				118,439	87,439	107,429	76,429
Total Eligible Own Funds to Meet the MCR				105,879	71,939	94,127	60,929
SCR				58,802	55,043	38,353	34,372
MCR				14,700	14,700	10,993	10,993
Ratio of Eligible Own Funds to SCR				**201.4%**	**158.9%**	**280.1%**	**222.4%**
Ratio of Eligible Own Funds to MCR				**720.2%**	**489.4%**	**856.2%**	**554.2%**

Tier 1 capital is made up of £50.0 million issued and fully paid up ordinary shares, a loss of £14.6 million in the reconciliation reserve which is comprised of the excess of assets over liabilities on a Solvency II valuation basis, less other basic own fund items between UK GAAP and Solvency II and £67.5 million other capital contribution. The Company had an existing capital contribution of £57.5 million and in 2021 the Company received £10.0 million capital contribution from its parent company, ARE to support the continued growth following the UK Regional growth, bringing the total additional capital contribution to £67.5 million which has increased the level of Tier 1 capital.

Tier 2 capital is made of £15.5 million subordinated loan from ACFI, to support growth from the new UK Regional business.

"Adjusted net asset basis (unaudited)"

Although the Company uses the Standard Formula for Solvency II in determining its regulatory capital, it does have an Internal Capital Model that it has previously used for setting economic capital and continues to use for a number of other purposes. Following the acquisition of UK regional business previously in 2019, the economic capital definition was revised to an "adjusted net asset basis" to ensure that the solvency position is adequately taking into account the Company's current capital structure. The purpose of this "adjusted net asset basis", using the standard formula as the starting point, is to recognise a solvency position where the underlying intangible assets held in respect of the acquisition in a fellow ACGL group company are treated as intangible assets on a look through basis, thereby reducing the value of own funds accordingly and also reducing the SCR relating to the market risk of these assets.

The Company follows a risk-based approach to determine the amount of capital required to support its activities. Recognised stochastic modelling techniques are used to measure risk exposures, and capital to support business activities is allocated according to risk profile. Stress and scenario analysis is regularly performed, and the results are documented and reconciled to the Board's risk appetite where necessary.

Under the “adjusted net asset basis”, the Company’s own funds available is £87.4 million as at December 2021 against the SCR of £55.0 million, with a surplus of £32.4 million or 158.9%. The “adjusted net asset basis” excludes the loan balance with Arch Intermediaries Group Ltd (“AIGL”), formerly known as Arch (UK) Holdings Limited, within the available own funds and the SCR excludes the equity invested as part of UK Regional acquisition.

The Company remains above the target risk appetite of 120.0% against SCR on an ‘’adjusted net asset basis’’.

The "adjusted net asset basis" is an additional, internally applied, more prudent measure, that the Board use to monitor solvency, and is not part of the requirement of Solvency II. It is reviewed as part of the Company’s internal governance processes but is unaudited.

On an adjusted net asset basis, the economic surplus has decreased during 2021 due to an increase in SCR.

Dividends & EPIFP

There are no foreseeable dividend distributions by the Company.

The EPIFP calculated gross of reinsurance is £17.8 million at 31 December 2021 compared to £13.6 million at 31 December 2020.

The Company’s financial statements are prepared in accordance with FRS 102. The key differences between the net assets under FRS 102 and the excess of assets over liabilities under Solvency II are summarised in the table below:

	2021
	£'000
Net Assets per Financial Statements in Accordance with UK GAAP	**87,991**
Valuation Difference on Technical Provision	7,534
Valuation Difference on Investment in Subsidiary	7,414
Subordinated loan	15,500
Total Own Funds Under Solvency II	**118,439**

E.2 Solvency Capital Requirement and Minimum Capital Requirement

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 of the Commission Delegated Regulation (EU) 2015/35 apply to the counterparty default risk sub-module;
- Simplifications have been used in the market, counterparty and underwriting risk sub-modules, the simplifications included are as follows;

- Interest Rate Risk on assets has been calculated using accumulated cash flows at currency level rather than individual asset level.
- Counterparty default risk in line with Article 107 of the Delegated Acts, AIUK has applied the simplification for Risk Mitigating Effects of reinsurance to simplify the calculation and inputs required for the calculation. This derives a Gross underwriting Risk SCR from which the Net Underwriting Risk SCR is deducted to estimate the allowance of reinsurance on the SCR. This amount is then apportioned across the current reinsurance exposures in line with the outstanding recoverables.
- Non-life underwriting risk within the Delegated Acts allow for a 20% reduction in the premium risk standard deviation for Fire and Property, General Liability and proportional classes due to XOL recoveries. It has assumed this reduction applies in all classes.

- The MCR is initially based on the calculation of the Linear MCR using the best estimate technical provisions and the net written premiums in the last 12 months. Then a floor of 25% of the SCR and a cap of 45% of the SCR is applied with an absolute floor of £3.1 million also applied to derive the final MCR requirement; and
- The Company has no material exposure to equity, hence the duration-based equity risk sub-module is not used.

As at 31 December 2021, the SCR is £58.8 million and the MCR is £14.7 million. A breakdown of SCR by risk category is set out in the following table:

There has been no material change to the Company's SCR and MCR during 2021.

Risk category	**£'000**
Insurance risk	37,755
Market risk	12,013
Credit risk	5,776
Undiversified Basic SCR	**55,544**
Diversification credit	(10,312)
Basic SCR	**45,232**
Operational risk	13,570
SCR	**58,802**

E.2.1 SCR ratio and MCR ratio

As at 31 December 2021, the ratio of eligible own funds to SCR is 201.4% (2020: 280.1%) and the ratio of eligible own funds to MCR is 720.2% (2020: 856.2%) on a standard Solvency II basis.

The Company uses the Standard Formula for determining its regulatory capital and also uses the Standard Formula on an ''adjusted net asset basis'' for setting economic capital. Under the "adjusted net asset basis", the Company's own funds available is £87.4 million as at December 2021 against the SCR of £55.0 million, with a surplus of £32.4 million or 158.9%.

The Company complied with the Solvency Capital Requirement and Minimum Capital Requirement during 2021.

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 Capital Model Used

Only the standard formula was used in the calculation of the SCR.

E.5 Non-Compliance With The MCR and Non-Compliance With The SCR

The Company complied with the SCR and MCR during 2021 and as at the date of this report.

E.6 Any other information

Climate Change

Please refer to Section A1.7

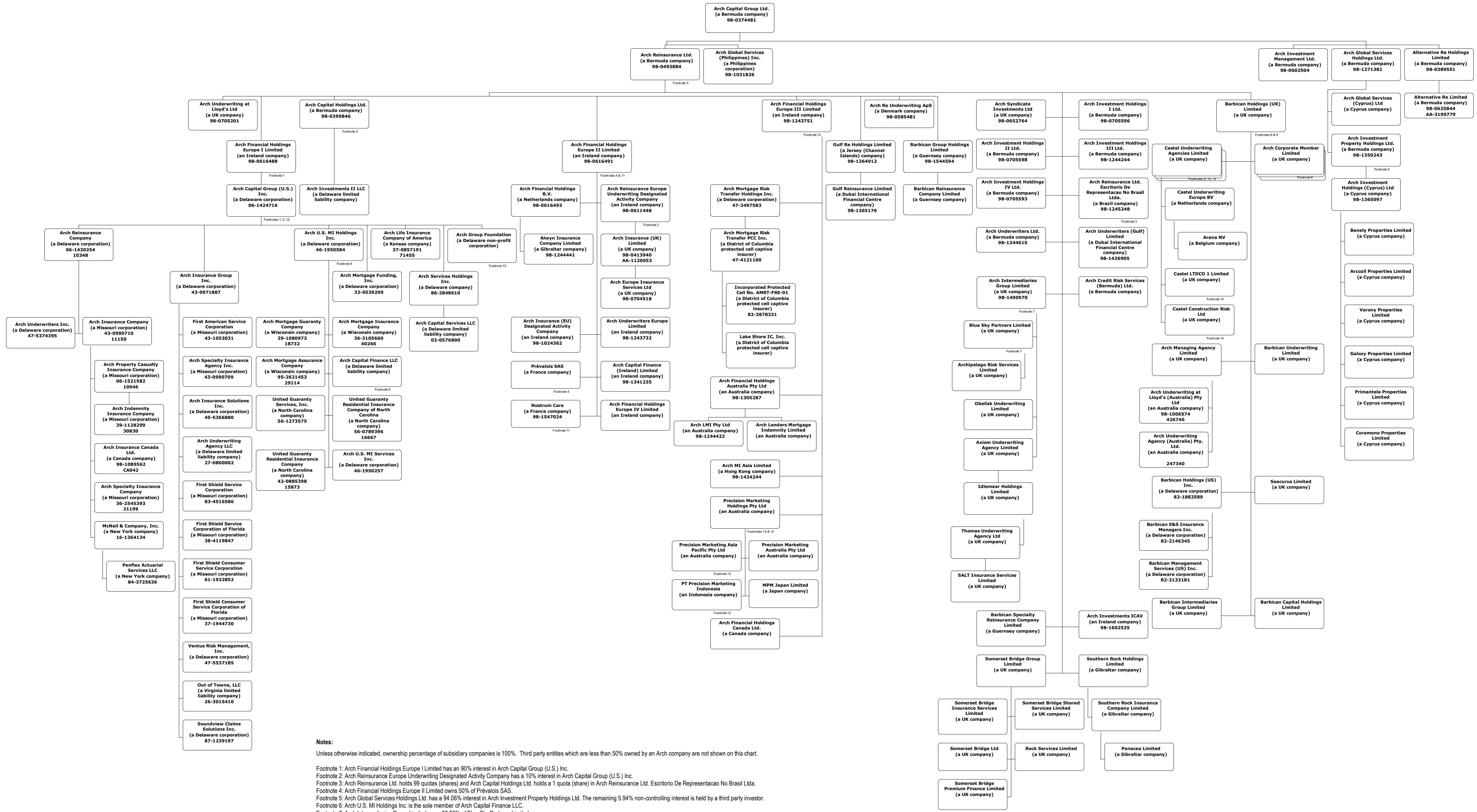
COVID-19

Please refer to Summary and Section A1.7

Appendix 1 ACGL Organisational Structure

ARCH CAPITAL GROUP LTD. ORGANIZATION CHART

Date: 12/31/2021



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. Escritorio De Representacao No Brasil Ltda.
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 Intermediaries Group Limited owns 98.03% of Blue Sky Partners Limited.
Footnote 8: Barbican Holdings (UK) Limited owns 12 more corporate member companies which are presented here under one heading.
Footnote 9: Barbican Holdings (UK) Limited owns 85% of Castel Underwriting Agencies Limited.
Footnote 10: Castel Underwriting Agencies Limited has an interest of over 60% in various UK partnerships.
Footnote 11: Arch Financial Holdings Europe II Limited owns 75% of Nostrum Care.
Footnote 12: Arch Financial Holdings Europe III Limited owns 75% of Precision Marketing Holdings Pty Ltd.
Footnote 13: PT Precision Marketing Indonesia is owned 99% by Precision Marketing Holdings Pty Ltd and 1% by Precision Marketing Asia Pacific Pty Ltd.
Footnote 14: Castel Underwriting Agencies Limited owns 60% of Castel LTDCO 1 Limited and 65.8% of Castel Construction Risk Limited.
Footnote 15: Arch Capital Group (U.S.) Inc. is the sole member of Arch Group Foundation which is a non-profit corporation that is in the process of applying for 501(c)(3) status.

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

Arch Insurance (UK) LImited

Solvency and Financial Condition Report

Disclosures

31 December

2021

(Monetary amounts in GBP thousands)

General information

Undertaking name	Arch Insurance (UK) LImited
Undertaking identification code	213800GLG1B1FI4VN881
Type of code of undertaking	LEI
Type of undertaking	Non-life undertakings
Country of authorisation	GB
Language of reporting	en
Reporting reference date	31 December 2021
Currency used for reporting	GBP
Accounting standards	Local GAAP
Method of Calculation of the SCR	Standard formula
Matching adjustment	No use of matching adjustment
Volatility adjustment	No use of volatility adjustment
Transitional measure on the risk-free interest rate	No use of transitional measure on the risk-free interest rate
Transitional measure on technical provisions	No use of transitional measure on technical provisions

List of reported templates

S.02.01.02 - Balance sheet
S.05.01.02 - Premiums, claims and expenses by line of business
S.05.02.01 - Premiums, claims and expenses by country
S.17.01.02 - Non-Life Technical Provisions
S.19.01.21 - Non-Life insurance claims
S.23.01.01 - Own Funds
S.25.01.21 - Solvency Capital Requirement - for undertakings on Standard Formula
S.28.01.01 - Minimum Capital Requirement - Only life or only non-life insurance or reinsurance activity

S.02.01.02

Balance sheet

		Solvency II value
	Assets	C0010
R0030	Intangible assets	
R0040	Deferred tax assets	
R0050	Pension benefit surplus	
R0060	Property, plant & equipment held for own use	0
R0070	Investments (other than assets held for index-linked and unit-linked contracts)	168,273
R0080	*Property (other than for own use)*	0
R0090	*Holdings in related undertakings, including participations*	47,914
R0100	*Equities*	0
R0110	*Equities - listed*	
R0120	*Equities - unlisted*	
R0130	*Bonds*	103,898
R0140	*Government Bonds*	72,400
R0150	*Corporate Bonds*	29,331
R0160	*Structured notes*	0
R0170	*Collateralised securities*	2,167
R0180	*Collective Investments Undertakings*	16,461
R0190	*Derivatives*	
R0200	*Deposits other than cash equivalents*	0
R0210	*Other investments*	0
R0220	Assets held for index-linked and unit-linked contracts	
R0230	Loans and mortgages	0
R0240	*Loans on policies*	0
R0250	*Loans and mortgages to individuals*	
R0260	*Other loans and mortgages*	
R0270	Reinsurance recoverables from:	425,116
R0280	*Non-life and health similar to non-life*	425,116
R0290	*Non-life excluding health*	419,725
R0300	*Health similar to non-life*	5,391
R0310	*Life and health similar to life, excluding index-linked and unit-linked*	0
R0320	*Health similar to life*	
R0330	*Life excluding health and index-linked and unit-linked*	
R0340	*Life index-linked and unit-linked*	
R0350	Deposits to cedants	0
R0360	Insurance and intermediaries receivables	13,194
R0370	Reinsurance receivables	21,451
R0380	Receivables (trade, not insurance)	3,267
R0390	Own shares (held directly)	
R0400	Amounts due in respect of own fund items or initial fund called up but not yet paid in	0
R0410	Cash and cash equivalents	14,702
R0420	Any other assets, not elsewhere shown	11,297
R0500	**Total assets**	657,301

S.02.01.02

Balance sheet

		Solvency II value
	Liabilities	C0010
R0510	Technical provisions - non-life	501,973
R0520	*Technical provisions - non-life (excluding health)*	495,882
R0530	*TP calculated as a whole*	0
R0540	*Best Estimate*	487,714
R0550	*Risk margin*	8,168
R0560	*Technical provisions - health (similar to non-life)*	6,092
R0570	*TP calculated as a whole*	0
R0580	*Best Estimate*	6,009
R0590	*Risk margin*	82
R0600	Technical provisions - life (excluding index-linked and unit-linked)	0
R0610	*Technical provisions - health (similar to life)*	0
R0620	*TP calculated as a whole*	
R0630	*Best Estimate*	
R0640	*Risk margin*	
R0650	*Technical provisions - life (excluding health and index-linked and unit-linked)*	0
R0660	*TP calculated as a whole*	
R0670	*Best Estimate*	
R0680	*Risk margin*	
R0690	Technical provisions - index-linked and unit-linked	0
R0700	*TP calculated as a whole*	
R0710	*Best Estimate*	
R0720	*Risk margin*	
R0740	Contingent liabilities	0
R0750	Provisions other than technical provisions	
R0760	Pension benefit obligations	
R0770	Deposits from reinsurers	
R0780	Deferred tax liabilities	
R0790	Derivatives	
R0800	Debts owed to credit institutions	
R0810	Financial liabilities other than debts owed to credit institutions	
R0820	Insurance & intermediaries payables	
R0830	Reinsurance payables	
R0840	Payables (trade, not insurance)	25,915
R0850	Subordinated liabilities	15,500
R0860	*Subordinated liabilities not in BOF*	
R0870	*Subordinated liabilities in BOF*	15,500
R0880	Any other liabilities, not elsewhere shown	10,973
R0900	**Total liabilities**	554,362
R1000	**Excess of assets over liabilities**	102,939

S.05.01.02

Premiums, claims and expenses by line of business

Non-life

		Line of Business for: non-life insurance and reinsurance obligations (direct business and accepted proportional reinsurance)												Line of business for: accepted non-proportional reinsurance				Total
		Medical expense insurance	Income protection insurance	Workers' compensation insurance	Motor vehicle liability insurance	Other motor insurance	Marine, aviation and transport insurance	Fire and other damage to property insurance	General liability insurance	Credit and suretyship insurance	Legal expenses insurance	Assistance	Misc. financial loss	Health	Casualty	Marine, aviation and transport	Property	
		C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0090	C0100	C0110	C0120	C0130	C0140	C0150	C0160	C0200
	Premiums written																	
R0110	Gross - Direct Business	-210	8,454		13,167	5,643	43,448	185,419	144,815	4,939								405,672
R0120	Gross - Proportional reinsurance accepted																	0
R0130	Gross - Non-proportional reinsurance accepted														11			11
R0140	Reinsurers' share	-171	6,611		11,366	4,883	38,297	164,668	126,204	4,802					10			356,670
R0200	Net	-39	1,843		1,801	760	5,151	20,750	18,611	136					2			49,014
	Premiums earned																	
R0210	Gross - Direct Business	1,376	6,477		8,782	3,764	45,739	169,386	128,284	5,001								368,808
R0220	Gross - Proportional reinsurance accepted																	0
R0230	Gross - Non-proportional reinsurance accepted														13			13
R0240	Reinsurers' share	1,177	5,462		7,588	3,263	40,093	149,928	111,956	4,815					11			324,295
R0300	Net	199	1,015		1,193	500	5,646	19,458	16,328	186					2			44,525
	Claims incurred																	
R0310	Gross - Direct Business	3,361	2,656		6,267	2,686	24,224	66,148	86,508	393								192,242
R0320	Gross - Proportional reinsurance accepted																	0
R0330	Gross - Non-proportional reinsurance accepted														-62			-62
R0340	Reinsurers' share	2,863	2,391		5,506	2,368	21,514	58,011	77,123	442					-52			170,166
R0400	Net	498	265		761	318	2,710	8,137	9,385	-49					-10			22,014
	Changes in other technical provisions																	
R0410	Gross - Direct Business	0	0		0	0	0	0	0	0								0
R0420	Gross - Proportional reinsurance accepted																	0
R0430	Gross - Non-proportional reinsurance accepted														0			0
R0440	Reinsurers' share	0	0		0	0	0	0	0	0					0			0
R0500	Net	0	0		0	0	0	0	0	0					0			0
R0550	**Expenses incurred**	149	179		1,140	478	4,915	12,203	8,322	382					23			27,791
R1200	**Other expenses**																	
R1300	**Total expenses**																	27,791

S.05.02.01

Premiums, claims and expenses by country

Non-life

		C0010	C0020	C0030	C0040	C0050	C0060	C0070
		Home Country	Top 5 countries (by amount of gross premiums written) - non-life obligations			Top 5 countries (by amount of gross premiums written) - non-life obligations		Total Top 5 and home country
R0010			US	AO	MX	AU	NZ	
		C0080	C0090	C0100	C0110	C0120	C0130	C0140
	Premiums written							
R0110	Gross - Direct Business	335,886	14,567	2,804	3,018	3,638	2,495	362,408
R0120	Gross - Proportional reinsurance accepted							0
R0130	Gross - Non-proportional reinsurance accepted	11						11
R0140	Reinsurers' share	295,313	12,808	2,465	2,653	3,199	2,194	318,632
R0200	Net	40,584	1,760	339	365	439	301	43,788
	Premiums earned							
R0210	Gross - Direct Business	279,985	13,055	1,059	2,608	2,496	2,235	301,438
R0220	Gross - Proportional reinsurance accepted							0
R0230	Gross - Non-proportional reinsurance accepted	13						13
R0240	Reinsurers' share	246,193	11,479	931	2,293	2,195	1,965	265,057
R0300	Net	33,805	1,576	128	315	301	270	36,394
	Claims incurred							
R0310	Gross - Direct Business	159,219	11,807	1,015	2,262	1,791	1,850	177,944
R0320	Gross - Proportional reinsurance accepted							0
R0330	Gross - Non-proportional reinsurance accepted	-62						-62
R0340	Reinsurers' share	140,935	10,451	899	2,002	1,585	1,637	157,510
R0400	Net	18,222	1,356	117	260	206	212	20,372
	Changes in other technical provisions							
R0410	Gross - Direct Business							0
R0420	Gross - Proportional reinsurance accepted							0
R0430	Gross - Non-proportional reinsurance accepted							0
R0440	Reinsurers' share							0
R0500	Net	0	0	0	0	0	0	0
R0550	**Expenses incurred**	24,895	1,763	143	352	337	302	27,791
R1200	**Other expenses**							
R1300	**Total expenses**							27,791

S.17.01.02

Non-Life Technical Provisions

		Direct business and accepted proportional reinsurance												Accepted non-proportional reinsurance				
		Medical expense insurance	Income protection insurance	Workers' compensation insurance	Motor vehicle liability insurance	Other motor insurance	Marine, aviation and transport insurance	Fire and other damage to property insurance	General liability insurance	Credit and suretyship insurance	Legal expenses insurance	Assistance	Miscellaneous financial loss	Non-proportional health reinsurance	Non-proportional casualty reinsurance	Non-proportional marine, aviation and transport reinsurance	Non-proportional property reinsurance	Total Non-Life obligation
		C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0090	C0100	C0110	C0120	C0130	C0140	C0150	C0160	C0170	C0180
R0010	**Technical provisions calculated as a whole**	0	0		0	0	0	0	0	0					0			0
R0050	Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default associated to TP calculated as a whole																	0
	Technical provisions calculated as a sum of BE and RM																	
	Best estimate																	
	Premium provisions																	
R0060	Gross	0	1,180		26	5,398	10,847	29,864	37,140	6,310					522			91,288
R0140	Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	-1	1,351		52	4,583	8,542	28,217	30,337	4,446					440			77,966
R0150	**Net Best Estimate of Premium Provisions**	1	-171		-26	815	2,306	1,647	6,803	1,864					83			13,322
	Claims provisions																	
R0160	Gross	-157	4,986		0	-3,818	41,831	126,217	231,687	1,548					140			402,435
R0240	Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	-134	4,175		0	-3,932	35,517	111,472	198,486	1,469					98			347,150
R0250	**Net Best Estimate of Claims Provisions**	-23	812		0	114	6,315	14,745	33,201	80					43			55,285
R0260	**Total best estimate - gross**	-157	6,167		26	1,580	52,679	156,081	268,827	7,858					662			493,723
R0270	**Total best estimate - net**	-23	641		-26	929	8,620	16,392	40,004	1,944					125			68,607
R0280	**Risk margin**	0	82		4	237	955	1,993	4,754	212					14			8,250
	Amount of the transitional on Technical Provisions																	
R0290	Technical Provisions calculated as a whole																	0
R0300	Best estimate																	0
R0310	Risk margin																	0
R0320	**Technical provisions - total**	-157	6,249		31	1,817	53,633	158,074	273,581	8,070					676			501,973
R0330	**Recoverable from reinsurance contract/SPV and Finite Re after the adjustment for expected losses due to counterparty default - total**	-134	5,526		52	651	44,058	139,689	228,823	5,914					537			425,116
R0340	**Technical provisions minus recoverables from reinsurance/SPV and Finite Re - total**	-23	723		-21	1,166	9,575	18,385	44,758	2,155					139			76,857

S.19.01.21

Non-Life insurance claims

Total Non-life business

Z0020 **Accident year / underwriting year** Underwriting Year

Gross Claims Paid (non-cumulative)
(absolute amount)

		C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0090	C0100	C0110	C0170	C0180
	Year					**Development year**							**In Current year**	**Sum of years (cumulative)**
		0	1	2	3	4	5	6	7	8	9	10 & +		
R0100	Prior											1,815	1,815	1,815
R0160	2012	248	6,291	36,187	10,004	5,576	10,268	8,411	3,319	23,713	2,100		2,100	106,116
R0170	2013	1,064	6,191	11,341	11,284	3,294	813	863	11,267	2,511			2,511	48,627
R0180	2014	980	16,011	20,204	15,697	2,368	1,105	13,287	604				604	70,257
R0190	2015	2,266	15,726	12,541	9,669	5,525	24,645	674					674	71,047
R0200	2016	2,924	21,049	13,436	14,435	23,587	2,006						2,006	77,437
R0210	2017	2,215	16,446	13,299	45,583	8,466							8,466	86,008
R0220	2018	1,948	22,205	40,978	10,043								10,043	75,173
R0230	2019	6,200	48,308	37,230									37,230	91,738
R0240	2020	8,101	40,515										40,515	48,617
R0250	2021	10,536											10,536	10,536
R0260												**Total**	116,502	687,370

Gross Undiscounted Best Estimate Claims Provisions
(absolute amount)

		C0200	C0210	C0220	C0230	C0240	C0250	C0260	C0270	C0280	C0290	C0300	C0360
	Year					**Development year**							**Year end (discounted data)**
		0	1	2	3	4	5	6	7	8	9	10 & +	
R0100	Prior											26,703	26,672
R0160	2012	0	0	0	0	44,248	36,818	24,394	21,575	21,267	18,011		17,978
R0170	2013	0	0	0	33,036	25,342	17,100	15,355	6,799	5,326			5,317
R0180	2014	0	0	49,115	34,267	26,522	16,653	13,509	12,120				12,075
R0190	2015	0	49,977	50,117	38,817	29,275	12,223	14,529					14,390
R0200	2016	29,730	54,389	41,028	29,952	24,943	25,132						24,723
R0210	2017	42,947	75,572	66,478	35,898	31,991							31,402
R0220	2018	39,032	70,709	41,346	37,119								36,288
R0230	2019	61,056	130,177	90,345									88,793
R0240	2020	37,035	120,847										118,362
R0250	2021	27,814											26,434
R0260												**Total**	402,435

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 2015/35	Total	Tier 1 unrestricted	Tier 1 restricted	Tier 2	Tier 3
		C0010	C0020	C0030	C0040	C0050
R0010	Ordinary share capital (gross of own shares)	50,000	50,000		0	
R0030	Share premium account related to ordinary share capital	0	0		0	
R0040	Initial funds, members' contributions or the equivalent basic own-fund item for mutual and mutual-type undertakings	67,500	67,500		0	
R0050	Subordinated mutual member accounts	0		0	0	0
R0070	Surplus funds	0	0			
R0090	Preference shares	0		0	0	0
R0110	Share premium account related to preference shares	0		0	0	0
R0130	Reconciliation reserve	-14,561	-14,561			
R0140	Subordinated liabilities	15,500		0	15,500	0
R0160	An amount equal to the value of net deferred tax assets	0				0
R0180	Other own fund items approved by the supervisory authority as basic own funds not specified above	0	0	0	0	0
R0220	**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**	0				
R0230	**Deductions for participations in financial and credit institutions**	0	0	0	0	
R0290	**Total basic own funds after deductions**	118,439	102,939	0	15,500	0
	Ancillary own funds					
R0300	Unpaid and uncalled ordinary share capital callable on demand	0				
R0310	Unpaid and uncalled initial funds, members' contributions or the equivalent basic own fund item for mutual and mutual - type undertakings, callable on demand	0				
R0320	Unpaid and uncalled preference shares callable on demand	0				
R0330	A legally binding commitment to subscribe and pay for subordinated liabilities on demand	0				
R0340	Letters of credit and guarantees under Article 96(2) of the Directive 2009/138/EC	0				
R0350	Letters of credit and guarantees other than under Article 96(2) of the Directive 2009/138/EC	0				
R0360	Supplementary members calls under first subparagraph of Article 96(3) of the Directive 2009/138/EC	0				
R0370	Supplementary members calls - other than under first subparagraph of Article 96(3) of the Directive 2009/138/EC	0				
R0390	Other ancillary own funds	0				
R0400	**Total ancillary own funds**	0			0	0
	Available and eligible own funds					
R0500	Total available own funds to meet the SCR	118,439	102,939	0	15,500	0
R0510	Total available own funds to meet the MCR	118,439	102,939	0	15,500	
R0540	Total eligible own funds to meet the SCR	118,439	102,939	0	15,500	0
R0550	Total eligible own funds to meet the MCR	105,879	102,939	0	2,940	
R0580	**SCR**	58,802				
R0600	**MCR**	14,700				
R0620	**Ratio of Eligible own funds to SCR**	201.42%				
R0640	**Ratio of Eligible own funds to MCR**	720.24%				

	Reconcilliation reserve	C0060
R0700	Excess of assets over liabilities	102,939
R0710	Own shares (held directly and indirectly)	0
R0720	Foreseeable dividends, distributions and charges	
R0730	Other basic own fund items	117,500
R0740	Adjustment for restricted own fund items in respect of matching adjustment portfolios and ring fenced funds	
R0760	**Reconciliation reserve**	-14,561
	Expected profits	
R0770	Expected profits included in future premiums (EPIFP) - Life business	
R0780	Expected profits included in future premiums (EPIFP) - Non- life business	17,795
R0790	**Total Expected profits included in future premiums (EPIFP)**	17,795

S.25.01.21

Solvency Capital Requirement - for undertakings on Standard Formula

		Gross solvency capital requirement	USP	Simplifications
		C0110	C0090	C0120
R0010	Market risk	12,013		
R0020	Counterparty default risk	5,776		
R0030	Life underwriting risk	0		
R0040	Health underwriting risk	474		
R0050	Non-life underwriting risk	37,281		
R0060	Diversification	-10,312		
R0070	Intangible asset risk	0		
R0100	**Basic Solvency Capital Requirement**	45,232		

USP Key

For life underwriting risk:
1 - Increase in the amount of annuity benefits
9 - None

For health underwriting risk:
1 - Increase in the amount of annuity benefits
2 - Standard deviation for NSLT health premium risk
3 - Standard deviation for NSLT health gross premium risk
4 - Adjustment factor for non-proportional reinsurance
5 - Standard deviation for NSLT health reserve risk
9 - None

For non-life underwriting risk:
4 - Adjustment factor for non-proportional reinsurance
6 - Standard deviation for non-life premium risk
7 - Standard deviation for non-life gross premium risk
8 - Standard deviation for non-life reserve risk
9 - None

	Calculation of Solvency Capital Requirement	C0100
R0130	Operational risk	13,570
R0140	Loss-absorbing capacity of technical provisions	0
R0150	Loss-absorbing capacity of deferred taxes	
R0160	Capital requirement for business operated in accordance with Art. 4 of Directive 2003/41/EC	0
R0200	**Solvency Capital Requirement excluding capital add-on**	58,802
R0210	Capital add-ons already set	0
R0220	**Solvency capital requirement**	58,802
	Other information on SCR	
R0400	Capital requirement for duration-based equity risk sub-module	0
R0410	Total amount of Notional Solvency Capital Requirements for remaining part	0
R0420	Total amount of Notional Solvency Capital Requirements for ring fenced funds	0
R0430	Total amount of Notional Solvency Capital Requirements for matching adjustment portfolios	0
R0440	Diversification effects due to RFF nSCR aggregation for article 304	0

	Approach to tax rate	C0109
R0590	Approach based on average tax rate	0

	Calculation of loss absorbing capacity of deferred taxes	LAC DT
		C0130
R0640	LAC DT	
R0650	LAC DT justified by reversion of deferred tax liabilities	0
R0660	LAC DT justified by reference to probable future taxable economic profit	0
R0670	LAC DT justified by carry back, current year	0
R0680	LAC DT justified by carry back, future years	0
R0690	Maximum LAC DT	0

S.28.01.01

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

	Linear formula component for non-life insurance and reinsurance obligations	C0010
R0010	MCR_{NL} Result	12,471

		Net (of reinsurance/SPV) best estimate and TP calculated as a whole	Net (of reinsurance) written premiums in the last 12 months
		C0020	C0030
R0020	Medical expense insurance and proportional reinsurance	0	0
R0030	Income protection insurance and proportional reinsurance	641	2,080
R0040	Workers' compensation insurance and proportional reinsurance	0	
R0050	Motor vehicle liability insurance and proportional reinsurance	0	2,178
R0060	Other motor insurance and proportional reinsurance	929	760
R0070	Marine, aviation and transport insurance and proportional reinsurance	8,620	5,295
R0080	Fire and other damage to property insurance and proportional reinsurance	16,392	21,474
R0090	General liability insurance and proportional reinsurance	40,004	19,799
R0100	Credit and suretyship insurance and proportional reinsurance	1,944	136
R0110	Legal expenses insurance and proportional reinsurance	0	
R0120	Assistance and proportional reinsurance	0	
R0130	Miscellaneous financial loss insurance and proportional reinsurance	0	
R0140	Non-proportional health reinsurance	0	12
R0150	Non-proportional casualty reinsurance	125	12
R0160	Non-proportional marine, aviation and transport reinsurance	0	
R0170	Non-proportional property reinsurance	0	

	Linear formula component for life insurance and reinsurance obligations	C0040
R0200	MCR_{L} Result	0

		Net (of reinsurance/SPV) best estimate and TP calculated as a whole	Net (of reinsurance/SPV) total capital at risk
		C0050	C0060
R0210	Obligations with profit participation - guaranteed benefits		
R0220	Obligations with profit participation - future discretionary benefits		
R0230	Index-linked and unit-linked insurance obligations		
R0240	Other life (re)insurance and health (re)insurance obligations		
R0250	Total capital at risk for all life (re)insurance obligations		

	Overall MCR calculation	C0070
R0300	Linear MCR	12,471
R0310	SCR	58,802
R0320	MCR cap	26,461
R0330	MCR floor	14,700
R0340	Combined MCR	14,700
R0350	Absolute floor of the MCR	3,126
R0400	**Minimum Capital Requirement**	14,700

Appendix 3 PwC Audit Opinion

Report of the external independent auditors to the Directors of Arch Insurance (UK) Limited ('the Company') pursuant to Rule 4.1 (2) of the External Audit Part of the PRA Rulebook applicable to Solvency II firms

Report on the Audit of the relevant elements of the Solvency and Financial Condition Report

Opinion

We have audited the following documents prepared by the Company as at 31 December 2021:

- The 'Valuation for Solvency Purposes' and 'Capital Management' sections of the Solvency and Financial Condition Report of the Company as at 31 December 2021, ('**the Narrative Disclosures subject to audit**'); and

- Company templates S.02.01.02, S.17.01.02, S.23.01.01, S.25.01.21 and S.28.01.01 ('**the Templates subject to audit'**).

The Narrative Disclosures subject to audit and the Templates subject to audit are collectively referred to as the '**relevant elements of the Solvency and Financial Condition Report'**.

The '**relevant elements of the Solvency and Financial Condition Report**' include information contained within the 'Capital Management' section of the Solvency and Financial Condition Report which has not been audited - this information is clearly marked as 'unaudited' and relates to the 'adjusted net asset basis used by the company as part of its internal capital governance.

We are not required to audit, nor have we audited, and as a consequence do not express an opinion on the **Other Information** which comprises:

- The 'Summary', 'Business and Performance', 'System of Governance' and 'Risk Profile' elements of the Solvency and Financial Condition Report;

- Company templates S.05.01.02, S.05.02.01 and S.19.01.21; and

- The written acknowledgement by management of their responsibilities, including for the preparation of the Solvency and Financial Condition Report ('**the Responsibility Statement**').

In our opinion, the information subject to audit in the relevant elements of the Solvency and Financial Condition Report of the Company as at 31 December 2021 is prepared, in all material respects, in accordance with the financial reporting provisions of the PRA Rules and Solvency II regulations on which they are based.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) including ISA (UK) 800 and ISA (UK) 805, and applicable law. Our responsibilities under those standards are further described in the *Auditors' Responsibilities for the Audit of the relevant elements of the Solvency and Financial Condition Report* section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the Solvency and Financial Condition Report in the UK, including the FRC's Ethical Standard as applied to public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

Our evaluation of the Directors' assessment of the Company's ability to continue to adopt the going concern basis of accounting included:

- Obtaining management's going concern assessment which considered the company's financial condition and liquidity position;
- Agreeing management's analysis to supporting documentation; and
- Assessing the reasonableness of management's analysis given our understanding of the company and challenging it accordingly.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Company's ability to continue as a going concern for a period of at least twelve months from the date on which the Solvency and Financial Condition Report is authorised for issue.

In auditing the Solvency and Financial Condition Report, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the Solvency and Financial Condition Report is appropriate.

However, because not all future events or conditions can be predicted, this conclusion is not a guarantee as to the Company's ability to continue as a going concern.

Our responsibilities and the responsibilities of the Directors with respect to going concern are described in the relevant sections of this report.

Emphasis of Matter - Basis of Accounting

We draw attention to the 'Valuation for Solvency Purposes' and 'Capital Management' of the Solvency and Financial Condition Report, which describe the basis of accounting. The Solvency and Financial Condition Report is prepared in compliance with the financial reporting provisions of the PRA Rules and Solvency II regulations, and therefore in accordance with a special purpose financial reporting framework. The Solvency and Financial Condition Report is required to be published, and intended users include but are not limited to the Prudential Regulation Authority. As a result, the Solvency and Financial Condition Report may not be suitable for another purpose. Our opinion is not modified in respect of this matter.

Other Information

The Directors are responsible for the Other Information.

Our opinion on the relevant elements of the Solvency and Financial Condition Report does not cover the Other Information and we do not express an audit opinion or any form of assurance conclusion thereon.

In connection with our audit of the Solvency and Financial Condition Report, our responsibility is to read the Other Information and, in doing so, consider whether the Other Information is materially inconsistent with the relevant elements of the Solvency and Financial Condition Report, or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the relevant elements of the Solvency and Financial Condition Report or a material misstatement of the Other Information. If, based on the work we have performed, we conclude that there is a material misstatement of this Other Information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Directors for the Solvency and Financial Condition Report

The Directors are responsible for the preparation of the Solvency and Financial Condition Report in accordance with the financial reporting provisions of the PRA rules and Solvency II regulations.

The Directors are also responsible for such internal control as they determine is necessary to enable the preparation of a Solvency and Financial Condition Report that is free from material misstatement, whether due to fraud or error.

Auditors' Responsibilities for the Audit of the relevant elements of the Solvency and Financial Condition Report

It is our responsibility to form an independent opinion as to whether the information subject to audit in the relevant elements of the Solvency and Financial Condition Report is prepared, in all material respects, in accordance with financial reporting provisions of the PRA Rules and Solvency II regulations on which they are based.

Our objectives are to obtain reasonable assurance about whether the relevant elements of the Solvency and Financial Condition Report are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but it is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decision making or the judgement of the users taken on the basis of the Solvency and Financial Condition Report.

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud, is detailed below.

Based on our understanding of the Company/industry, we identified that the principal risks of non-compliance with laws and regulations related to breaches of insurance regulations, such as those issued by the Prudential Regulation Authority and the Financial Conduct Authority, and we considered the extent to which non-compliance might have a material effect on the Solvency and Financial Condition Report. We also considered those laws and regulations that have a direct impact on the Solvency and Financial Condition Report such as Solvency II Regulations and the Solvency II Directive. We evaluated management's incentives and opportunities for fraudulent manipulation of the Solvency and Financial Condition Report (including the risk of override of controls), and determined that the principal risks were related to posting of inappropriate journals and management bias in accounting estimates. Audit procedures performed included:

- discussions with the Audit Committee, management and Internal Audit, including consideration of known or suspected instances of non-compliance with laws and regulations and fraud;

- evaluation and testing of the operating effectiveness of management's controls designed to prevent and detect irregularities;

- reviewing, and challenging where appropriate, the assumptions and judgements made by management in their significant accounting estimates, in particular in relation to the estimation of technical provisions including the estimation of future premium and claims cash flows;

- testing material Solvency II adjustments applied to the Templates subject to audit;
- identifying and testing journal entries based on selected fraud risk criteria, in particular journal entries with unusual account combinations or posted by unexpected users;
- evaluating the business rationale for any significant transactions identified outside the normal course of business; and
- designing audit procedures to incorporate unpredictability around the nature, timing or extent of our testing.

There are inherent limitations in the audit procedures described above. We are less likely to become aware of instances of non-compliance with laws and regulations that are not closely related to events and transactions reflected in the Solvency and Financial Condition Report. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

A further description of our responsibilities for the audit is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

Use of this report

This report, including the opinion, has been prepared for the Board of Directors of the Company in accordance with External Audit rule 2.1 of the Solvency II firms Sector of the PRA Rulebook and for no other purpose. We do not, in providing this report, accept or assume responsibility for any other purpose or to any other party save where expressly agreed by our prior consent in writing.

Report on Other Legal and Regulatory Requirements

In accordance with Rule 4.1 (3) of the External Audit Part of the PRA Rulebook for Solvency II firms we are also required to consider whether the Other Information is materially inconsistent with our knowledge obtained in the audit of the Company's statutory financial statements. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

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6 April 2022