Invesco Pensions Limited

Solvency and Financial Condition Report | 31 December 2022

Approved by IPL Board | 22 March 2023

EXECUTIVE SUMMARY

- Invesco Pensions Limited (IPL) is a wholly-owned UK subsidiary of Invesco Limited, an independent global investment management company listed on the New York Stock Exchange. IPL's sole business activity is the provision of insurance products to trustees of pension schemes registered in the UK, either directly or through reinsurance of the investment element of policies written by third party life insurers.
- The business saw rapid growth to 2017 due to the success of a new institutional product, which attracted significant investment from a number of large occupational pension schemes, the Invesco Global Targeted Returns (GTR) Pension Fund. The new business generated a sharp increase to IPL's revenues and profits in 2017. Since then, however there have been significant outflows, following a prolonged period of below-target performance leading to a reduction in assets under management of 84.8% relative to the peak. The GTR fund constituted approximately 36% of IPL's assets under management at 31 December 2022 (down from 45.5% in 2021). Further details are provided in section A.4 below.
- During the year the Board commissioned a review to determine whether the existing governance and operating framework associated with the company continued to best serve our policyholders given the reduction in policyholder assets in recent years. The Board decided to streamline some aspects of our business and to seek to continue to reduce costs where appropriate, whilst continuing to ensure that we maintain a strong governance and control framework which is focussed on serving our policyholders.
- The company forms part of the Invesco Limited group in Europe, the Middle-East and Africa ("EMEA group"), a larger business unit headed by Invesco UK Limited ("IUK"), the immediate parent company. Invesco Pensions Limited is governed by its own Board of Directors ("the board"), and committees established by the Board, but substantially all its business and support activities (including risk, compliance and internal audit functions) are carried out on its behalf by the EMEA group within governance frameworks established for the group as a whole and shared with other operating and regulated companies in the region. The frameworks include the provision of risk management systems and internal controls using a 'three lines of defence' model. Further details are provided in sections B.3, B.4 and B.5 below.
- As noted above, IPL has a simple business model with just one business activity: the provision of unit-linked insurance products to UK Registered Pension Schemes. The company's risk profile is correspondingly simple, and the key risks to its financial position and operational performance are lapse risk; market risk; credit default risk; expense risk; and operational risks. IPL has exposures to other risks including underwriting risk and liquidity risk but, relative to the main risks, these are not material. We have taken a proportionate approach to Climate Change risk given we do not consider this to be material to IPL's business model. Further details are provided in section C below.
- Fund administration, client administration and actuarial services are outsourced to external third parties.
- The Board reviews the company's capital position on a regular basis and determines the appropriate capital to be maintained. The Solvency capital ratio at 31 December 2022 was 1,274% (2021: 217%). Own funds increased from £34.0m in 2021 to £43.9m in 2022, due to reductions in forecast expenses, led by the reduction in AUM over the period, which is offset slightly by the change in long term lapse assumptions. The Solvency Capital Requirement (SCR) reduced from £15.7m to £3.0m, driven principally by the fall in assets under management during the year. In addition, the Minimum Capital Requirement (MCR) decreased from £7.0m to £3.4m. Further details are provided in section E below.

Directors' statement of responsibility

We acknowledge our responsibility for preparing the SFCR in all material respects in accordance with the PRA Rules and the Solvency II Regulations.

We are satisfied that:

- 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; and
- It is reasonable to believe that the insurer has continued so to comply subsequently and will continue so to comply in future.

	Richard Glenn
Director	**Director**

Date: 2 May 2023

A. BUSINESS AND PERFORMANCE

A.1 Business

IPL operates a simple business strategy with, essentially, a single line of business. It provides unit-linked insurance products to trustees of UK Registered Pension Schemes, including unit-linked reinsurance of the investment element of policies issued by third party life insurers wishing to offer Invesco funds to their pension scheme clients. All of the company's business activities take place in the UK.

Whilst IPL's corporate history dates from February 1999, its scale and financial performance grew very significantly in the three years following the launch of the GTR Pension Fund in April 2014, peaking in 2017 with subsequent net outflows in the years since then. The current assets under management can be considered as having two components:

a) 64% of AUM represents a more mature business invested in a relatively broad range of funds for a relatively diverse policyholder base, including both Defined Benefit (DB) and Defined Contribution (DC) schemes, as well as 'retail' Self Invested Personal Pension (SIPP) schemes. This block of business has been and remains relatively stable with comparatively modest inflows and outflows; and

b) The remaining 36% represents a younger book of business sourced primarily from institutional investors and predominantly invested in the GTR Pension Fund. This book of business exhibited dramatic growth from its launch but has now reduced substantially from its peak.

Revenue is earned as a percentage of assets under management. The majority of expenses are also charged as a proportion of assets under management, which will mitigate the impact of extreme stress scenarios. IPL has no employees but operates within a group structure headed by its immediate parent, Invesco UK Limited ('IUK'). Support for the company's operations and the control functions are provided by other members of the IUK group, with fund administration, client administration and actuarial services provided by third parties.

IPL is authorised by the Prudential Regulation Authority ('PRA'), which is located at 20 Moorgate, London EC2R 6DA, and is regulated by the Financial Conduct Authority ('FCA') and the PRA.

IPL's auditor is PricewaterhouseCoopers LLP, Chartered Accountants, 7 More London Riverside, London SE1 2RT.

A.2 Underwriting performance

IPL does not underwrite insurance risks.

A.3 Investment performance

Set out below is a summary of the investment performance of IPL's five largest funds:

Note, Invesco Balanced Risk 10 Pension Fund has not operated for 5 years.

As at 31 December 2022	Fund Value	Cumulative Gross Returns (%)		
Fund Name	**£m**	**1 Year**	**3 Year**	**5 Year**
Invesco Global Targeted Return Pension Fund	202.6	-1%	0%	0%
Invesco Managed Pension Fund	78.7	-4%	3%	3%
Invesco UK Smaller Companies Equity Pension Fund	67.9	-25%	-3%	3%
Invesco UK Equities Pension Fund	57.6	0%	0%	3%
Invesco Balanced Risk 10 Pension Fund	37.3	-19%	1%	2%

A.4 Financial Performance

As noted above, IPL's business grew quickly in the period from the launch of the GTR Pension Fund in 2014 through to 2017 with subsequent outflows in the years since. The table below shows the policyholder assets under management (AUM) over the last 5 years.

	As At 31 December 2022				
	2018	**2019**	**2020**	**2021**	**2022**
Assets Under Management (£m)	8,938.8	8,183.4	5,546.9	1,397.6	555.9
% Change versus prior year	*-2.8%*	*-8.4%*	*-32.2%*	*-74.8%*	*-60.0%*

	Years to 31 December				
	2018	2019	2020	2021	2022
Investment income	199,533	177,730	200,301	134,620	32,605
Net (losses)/gains on investments	(550,444)	301,621	(254,679)	(26,881)	(124,524)
Fees from fund management	59,823	57,658	41,899	17,391	5,051
Total income	**(291,088)**	**537,009**	**(12,479)**	**125,130**	**(86,868)**
% change	*-199.8*	*284.5*	*-102.3*	*1102.7*	*-169.4*
Profit before tax	**32,830**	**16,727**	**7,829**	**2,677**	**1,036**
% change	*22.6*	*-49.0*	*-53.2*	*-65.8*	*-61.3*

As at 31 December 2022, the value of the GTR Pension Fund was £202.61 million, or 36% of IPL's total. The new business written is profitable and cash generative.

A.5 Any other information

There is no further information regarding IPL's business and performance.

B. SYSTEM OF GOVERNANCE

B.1 General information on the system on governance

B.1.1 Group structure

IPL is a wholly–owned subsidiary of IUK, itself a wholly-owned subsidiary of Invesco Ltd., a leading independent global investment management company incorporated in Bermuda with global headquarters in Atlanta, Georgia, USA. Invesco Ltd had assets under management at 31 December 2022 of US$ 1,409 billion (2021: US$1,610.9 billion) and 8,611 (2021: 8,513) employees. It is a widely held public company listed on the New York Stock Exchange under the symbol IVZ and had a market capitalisation of US$8.18 billion at 31 December 2022 (2021: US$10.6 billion). It has a significant presence in the retail and institutional markets within the investment management industry in North America, UK, Continental Europe, Middle East and Asia-Pacific, serving clients in more than 110 countries.

IUK is the holding company for the Invesco EMEA Group and the principal business activity of its subsidiaries is investment management and related activities for a broad range of retail and institutional investment products, including open ended and closed ended collective investment vehicles and segregated portfolios invested mainly in equities and fixed interest securities. The business is diversified across asset classes, products and clients. The EMEA Group had AUM of US $186.3 billion across the region as at 31 December 2022 (2021: US $231.1 billion).

The EMEA Group's business activities are organised along functional business lines: Investment Management, Distribution, and Operations. These business lines work alongside enterprise support functions including Finance, Legal, Compliance, Internal Audit, Technology and HR which form part of Invesco's global platform. These business and support activities are generally carried out by IUK pursuant to inter-company service agreements on behalf of one or more legal entities within the EMEA Group, including IPL, which contract with clients for the provision of services.

B.1.2 IPL Board

The IPL Board determines the company's business objectives and risk appetite and assesses the adequacy of its capital resources to meet the risks to which it is exposed taking account of IPL's business plans and financial forecasts for the financial year. At the same time, the governance framework described below helps to ensure that the IPL Board and its committees are informed of and able to identify deviations from strategic objectives, business plans and risk appetite and, accordingly, that they can consider the impact on the company.

The Board performs IPL's Own Risk and Solvency Assessment and approves the company's financial statements and this Solvency and Financial Condition Report. Persons responsible for the company's key functions: the investment management, risk management, compliance, internal audit and actuarial functions, all report to the Board of Directors.
The IPL Board is made up of three independent non-executive directors, one of whom acts as Chair, and two executive directors. The table below shows the current Board members:

Rachel Court	Chair and independent NED
Julian Bartlett	Chair of Audit and Risk Committee and independent NED
Richard Glenn	Director
Mark Goodale	Independent NED
Alan Trotter	Chief Executive Officer

B.1.3 IPL Audit and Risk Committee

IPL has established an Audit and Risk Committee, reporting to the Board, whose objective is to promote high standards of conduct and ethical practice, financial reporting and related risk management systems and internal financial control, having regard to relevant laws and regulations. The Committee will report on areas highlighted by its review and monitoring process with recommendations, if appropriate, of actions that management should take. It will also oversee and advise the Board on the current risk exposures and future risk strategy of the Company, including strategy for capital and liquidity management, and the embedding and maintenance of a supportive culture in relation to the management of risk.

B.1.4 IPL Operational Management Committee

IPL has also established a management committee whose role is to consider, assess and decide upon actions necessary to give effect to IPL Board requests and decisions; and to review and monitor the activities of business functions conducted by the EMEA Group on behalf of IPL, including the oversight of third party outsourcing, and ensure these are consistent with the objectives and policies adopted by the Board.

B.2 Fit and proper requirements

The Invesco group places great importance on the fitness and propriety of its employees and officers.

Procedures are in place to conduct verification checks on all employees including identity validation, employment history, education and qualifications, credit search, criminal records and directorships search. Staff in scope of the Senior Managers and Certification Regime (SMCR) including non-executive directors will have regulatory references taken that will cover their employment for the previous 6 years. Staff and Non-Executive Directors are required to notify during the course of their employment any criminal record or change of circumstance that would show up on a credit check. Standard background checks are carried out for staff who hold a senior manager function, including notified non-executive directors under the SMCR rules, and basic background checks are carried out for all other staff. Those employees holding a SMCR role are required to complete a self-declaration annually with an independent re-screening every three years, unless there is a business requirement to do this sooner.

These checks are supported by a program of regulatory and financial crime awareness training conducted by the compliance team. This will cover a range of topics and a variety of methods, including web-based modules that can be delivered to all, or a wide group of staff in multiple jurisdictions. Regulatory training that is assigned to staff is mandatory and completion is monitored and reported to heads of business units. Staff are also required to self-certify each year compliance with the group's Code of Conduct and the Code of Ethics & Personal Trading Policy EMEA.

All staff are subject to an annual review of their competence, knowledge, skills and performance, with Senior Managers and Certified Individuals having an annual fitness and propriety assessment. There is an ongoing assessment of the competence status of employees who carry out an activity that is in scope of the FCA's formal Training and Competence requirements and ESMA's Knowledge and Competence requirements. Individuals in these roles are unable to perform their duties without supervision until they have formally been assessed as fully competent to do so.

B.3 Risk management system including the ORSA

B.3.1 EMEA group risk management framework

As a member of the Invesco EMEA Group, IPL is supported by an EMEA risk management framework which is established for the group and which is integrated into a "three lines of defence" model across all business functions (from the front office to corporate functions). The three lines of defence model is designed to ensure that there is no conflict of interest in the management of risk and to ensure that the business lines, whilst managing day to day risk, are provided with adequate oversight and challenge. As such it helps ensure the integrity and effectiveness of the systems and controls implemented by the business lines. The model is based on the following key principles:

- Business units are the primary risk takers and risk owners in IPL's business activities. From a risk management perspective, business units will retain "first-line of defence" risk management responsibility.
- Independent (of risk taking) Risk Management functions and Compliance are primarily responsible for developing risk management standards and requirements for the front line as well as providing risk oversight, monitoring, and risk reporting. As such they represent a "second line of defence".
- Internal Audit constitute the "third line of defence" in the organisation and conduct regular assessments on the extent to which the risk and control environments – and specific areas therein – are functional, effective and comprehensive.

Each of the functions (and specifically those within the second and third lines of defence) provide management information to the IPL Audit and Risk Committee and, where appropriate, the IPL Board to enable them to oversee and challenge whether IPL's activities are being managed in accordance with the company's risk appetite and consider any potential impacts on its capital adequacy requirements.

B.3.2 IPL business strategy

The business strategy is developed by the Board with input from relevant parts of the EMEA Group, and is reviewed annually.

The IPL Board of Directors has defined its primary objectives with respect to the management of the company as follows:

- Provide valuable products and services to customers while providing its shareholder with an economic return.
- Maintain the stability of the company's balance sheet so as to:
  - Provide a secure and consistent level of cover for its policyholder liabilities; and

- Minimise the level of financial support required from the wider Invesco Group.
- Sustain the unit-linked assets under management of the company. While the Board also aims to deliver a stable return on investment to its shareholder, it will tolerate year on year variances in profit as long as these variances do not have a material adverse impact on the primary objectives listed above.

During the year the Board commissioned a review to determine whether the existing governance and operating framework associated with the company continued to best serve our policyholders given the reduction in policyholder assets in recent years. The Board decided to streamline some aspects of our business and to seek to continue to reduce costs whilst continuing to ensure that we maintain a strong governance and control framework which is focussed on serving our policyholders.

B.3.3 IPL risk appetite

IPL's risk appetite is developed to support the business strategy and thus allows the Board to ensure that operational activities and processes are within the desired risk tolerances.

The Board accepts that risk to its objectives and uncertainty regarding future performance are necessary parts of carrying out its business and of offering and maintaining unit-linked business. In line with the objectives outlined above, the Board has defined its risk appetite in relation to the level of capital required to be able to meet regulatory capital requirements under normal and stressed conditions

Increased monitoring and reporting will be required if the capital coverage drops below 160% of the SCR and if the coverage drops, or is projected to drop, below 150% of SCR, the Board will consider what direct action should be taken to increase the SCR coverage. It is the Board's intention that the SCR coverage should never fall below 120%.

The Board has set out specific risk indicators relating to market risk, lapse risk, expense risk, new business risk and operational risks consistent with its risk appetite. These constitute the principal categories of risk to which the company is exposed.

B.3.4 Own Risk and Solvency Assessment

The ORSA is the process, owned by the Board, by which IPL assesses all the material risks inherent in its business, and determines its corresponding capital needs. It is intended to provide a link between the quantitative requirements of Pillar I of Solvency II, the qualitative requirements of Pillar II, and the firm's own strategy. In particular, the ORSA gives insight into the continued sustainability of the business in the context of the strategic objectives of the Board, the approved risk appetite, and the company's obligations to the policyholders.

Whilst the ORSA is a continuous process, it is recorded each year in a written report which is reviewed and approved by the Board. Looking forward from an agreed starting point each year, the report assesses the potential impact on the risk profile, capital position and profit levels of the business of a number of scenarios materialising over the business planning period. These scenarios are considered and selected by the Board in relation to the key areas of risk and uncertainty.

The most recent ORSA report prepared was based on the company's balance sheet and in-force data as at 30 June 2022. The key finding of this is that Pillar I SCR continues to support IPL's risk appetite of 160% of SCR and the lower tolerance of 150% of SCR cover as reasonable levels of capital coverage within which to manage the firm's risk exposures.

The ORSA shows that the key risks to IPL's solvency are: lapse risk; market risk; counterparty credit default risk; expense risk; and operational risks. The ORSA also shows that there are some parameters over which IPL has little or no control that have the potential to cause volatility in the IPL solvency coverage ratio. These include: interest rates as measured by the PRA yield curve; the PRA symmetric adjustment; the assets underlying the GTR Pension Fund, the mix of assets, net flows in or out of the GTR Pension Fund and the level of profit recorded by the business .

The solvency ratio as at 30 June 2022 was 823%. The Board is comfortable that this level will provide appropriate protection against short-term volatility in the parameters and risks listed above. IPL will continue to regularly monitor a range of metrics including the following: new business levels, the level of profit emerging on the business, fixed interest yields and the make-up of the GTR Pension Fund.

B.4 Internal control system

B.4.1 The first line of defence

The individual business lines and functional areas are responsible for identifying and assessing the risks to which they are exposed and for operating suitable controls to reduce those risks to within IPL's stated risk appetite.

As part of the control environment, a number of business committees have been established to help manage and oversee important business policies and activities.

The business lines provide regular reports to the IPL Board and Audit and Risk Committee on matters of significance to the Company's strategic objectives and risk appetite including business updates for Investment Management and Distribution, Operations reports and reports relating to significant new business initiatives or product development proposals, as well as matters that are escalated through the operational risk assessment process described below.

B.4.2 The second line of defence – Independent risk management

Risk Management is overseen by two distinct and independent second line EMEA teams: Operational Risk and Investment Risk oversight. Each team's activities and responsibilities are described below.

Operational Risk

Operational risk is generally defined as the 'risk of loss resulting from inadequate or failed internal processes or systems related to all areas and activities except those related to the core investment process'.

The EMEA Operational Risk Management framework is designed to implement risk management capabilities and mechanism to help the first line identify, assess and manage the organisation's operational risk exposures and to challenge and monitor these as well as provide independent reporting/assessment of these.

In addition, the Operational Risk team assists the business in the provision of the required information for Capital Scenario assessments and the production of the company's 'Own Risk and Solvency Assessment' report.

Investment Risk

The Investment Risk Oversight team is responsible for managing investment risk within the EMEA domiciled funds in accordance with the relevant investment objectives and policies and by applicable regulatory obligations. A Risk Profile and Limit System (RPLS) is established for each fund as part of the product development process and is periodically reviewed taking account of the investment strategies and restrictions of each fund. The team is also responsible for producing and maintaining all risk management policies and RPLS packs, monitoring portfolio risk limits (and where appropriate escalating potential limit breaches) and for preparing quarterly investment risk reports to the relevant boards.

B.4.3 The second line of defence – Compliance function

The purpose of the Compliance function is:

- To assist senior management and the Board in discharging their responsibility of effectively managing the compliance risks faced by the firm.
- To identify, assess, advise, monitor and report on the firm's compliance risks.

Invesco maintains a permanent and effective compliance function which operates independently and which has the following responsibilities:

- To advise and assist the relevant persons responsible for carrying out regulated activities to comply with Invesco's obligations under the regulatory system.
- To monitor and, on a regular basis, to assess the adequacy and effectiveness of the measures and procedures put in place, and the actions taken to address any deficiencies in Invesco's compliance with its obligations.

Compliance provides quarterly assurance and escalation reports to the IPL Audit and Risk Committee providing information and analysis of monitoring activities and breaches, regulatory updates, and recommendations to improve compliance across the control environment.

B.5 Internal Audit Function - The Third line of defence

The Internal Audit Department provides independent and objective advice and assurance on the control environment which is designed to add value to and improve the firm's operations. These services are provided on an ongoing basis through a systematic, disciplined and risk-based approach to evaluate and improve the effectiveness of risk management, control and governance processes.

Internal Audit reports to the IPL Audit and Risk Committee to provide assurance as to the design and effectiveness of the control environment. Internal Audit reports identify control weaknesses and gaps where action is required, ranking them by level of risk from minor to critical in order to focus management attention and resources where it is most needed.

The function is led by the regional Internal Audit Director, who has an independent reporting line directly to the Non-Executive Chair of the IPL Audit and Risk Committee. This structure allows the Internal Audit Department to maintain its independence. Internal audit staff are required to maintain independence and do not take part in the management of any other business functions.

B.6 Actuarial Function

IPL's operating model is simple, comprising a single line of business, and it is the only insurance entity in the Invesco group. Therefore, whilst essential, the actuarial services required to support IPL's business are not complex and IPL has operated using an external actuary to ensure that the function is performed by a person with knowledge and experience of the industry, and appropriate qualifications and skill. Robert Bugg, a Principal of Milliman LLP, holds the company's Chief Actuary function and his firm provides actuarial and related support services.

The business lines providing services to IPL, in particular the Finance team and the Independent Risk Function, work closely with Milliman and the Chief Actuary. They, along with the third party scheme administrators (Mercer) provide data to Milliman and the Chief Actuary for the calculations of technical provisions, solvency capital requirements and balance sheet projections. The Chief Actuary also provides specialist advice and opinions on risk management, assistance with the ORSA and reviews the underwriting and reinsurance policies.

The Chief Actuary maintains regular contact with the CEO and management team, attends meetings of the Board and the Audit and Risk Committee and provides reports to each such meeting.

B.7 Outsourcing

As noted in paragraph B.1.1 and in common with other regulated companies in the Invesco EMEA Group, substantially all IPL's day-to-day operations, including its key functions, are performed either by companies within the Invesco group or by external providers. Service agreements are in place with each provider. Key outsourced providers are listed below.

Provider	Services	Location
Milliman LLP	Actuarial services	UK
Mercer Limited	Administration of pension arrangements	UK
BNY Mellon	Fund accounting and administration	UK, Poland, Republic of Ireland, India
Invesco Asset Management Limited	Investment management and distribution	UK

Day to day oversight of the external administration service providers – BNY Mellon and Mercer – is carried out by dedicated teams within Invesco. Oversight by Invesco of these service providers includes;

- Performance targets (KPIs) to assess the adequacy of service provision as documented in the Service Level Agreement.
- Review of monthly service delivery reports which provide metrics and key information relating to the services.
- Formal meetings held with service providers to review the delivery of services, risks, controls and action being taken to improve service levels or mitigate risks, including a quarterly meeting focusing on risk, audit and compliance issues.
- Action plans agreed with service providers to remediate any incidents and processes agreed to escalate any performance issues.

Oversight by IPL of the operational functions performed by Invesco UK is carried out through the IPL Management Committee. Oversight of investment management and distribution is a central function carried out for the group as a whole with established teams and processes which report to the boards of the relevant funds and regulated entities. Oversight of the provision of actuarial services by Milliman is carried out by the IPL Board.

Invesco has a documented outsourcing policy which applies to its regulated entities in EMEA. The policy applies to outsourcing arrangements including external third party service providers and intra-group outsourcing within the Invesco group. It is applied proportionately and covers all aspects of how Invesco manages such outsourcing relationships over their entire lifetime, from start to finish, including inter alia:

- Definition as to what is an outsourcing arrangement
- Obligations on Invesco to remain responsible and accountable under the applicable regulatory system for the outsourcing arrangement
- What cannot be outsourced

- When to outsource
- Assessment of materiality and differences in applicability of the policy to material and non-material arrangements
- Selection of third party service providers
- Initial due diligence and risk assessment
- Approval requirements to proceed with an outsourcing arrangement
- Contractual requirements
- Governance and on-going due diligence
- Performance standards and monitoring
- Board reporting and escalation
- Exit and contingency planning
- Record keeping including the maintenance of outsourcing registers.

B.8 Any other information

In addition to the outsourced providers described above, key business and corporate support services are delegated internally. Invesco UK Ltd is the principal provider of these services.

There is no further information regarding IPL's system of governance.

C. RISK PROFILE

The key risks described below are those that the Board have identified as material risks in the ORSA.

The table below summarises the top risks to the company as determined by the Solvency II Solvency Capital Requirement. The percentages shown are of the total undiversified SCR:

Key risks under Solvency II	Capital Requirement %	
	Year end 2022	Year end 2021
Operational risk	26%	22%
Interest Rate risk	19%	0%
Counterparty Default risk	19%	4%
Lapse risk	15%	60%
Credit Spread risk	13%	3%
Equity risk	7%	2%
Expense risk	2%	8%

C.1 Underwriting Risk

As noted in A.2 above, IPL does not underwrite insurance benefits or give any kind of guarantees. The key components of underwriting risk are therefore lapse risk and expense risk.

C.1.1 Lapse risk

Lapse risk refers to the risk of a change in the company's assets under management or insurance liabilities as a result of fund outflows from disinvestments being higher or lower than expected. This may occur from a result of a material and sudden ("mass lapse") increase in outflows or a sustained increase or decrease in outflows.

The consequence of a high lapse rate on the company is that future income from the annual management charges (AMC) is reduced without a corresponding reduction in the fixed overhead expenses. Lapse risk therefore impacts profitability, with a higher lapse rate causing a reduction in profitability. A management action to reduce IPL's overhead expenses would be available in the event of an increase in lapses; this is assumed to take place for the purpose of the Solvency Capital Requirement in the mass lapse stress.

IPL's lapse risk as calculated under the Solvency II Standard Formula is the largest component of IPL's SCR at year end 2022, with its importance decreasing compared to last year. Under the Solvency II Standard Formula the most onerous lapse stress for each scheme is taken as the lapse risk capital. The three lapse risk stresses tested are a mass lapse stress, a sustained increase in lapse rates and a sustained decrease in lapse rates. At 31 December 2022, the most onerous stress for the majority of schemes was the mass lapse stress, as this would result in a sudden loss of future income relative to expenses under this stress. The remaining schemes mostly have "lapse down" as their most onerous stress as a result of IPL's expense base (which is assumed to increase with inflation) being allocated to the in-force schemes for a longer period of time as the AUM runs off more slowly. Notwithstanding that the mass lapse stress is the biting stress for the purposes of the SCR, IPL's solvency ratio typically reduces if assumed lapse rates decrease, and increases if assumed lapse rates increase.

IPL seeks to manage its exposure to lapse risk and its consequences by striving to achieve strong investment performance and high levels of customer service, so maintaining its competitive position. IPL's operational performance may also affect lapse rates and this risk is dealt with in paragraph C.5 below.

IPL monitors its fund flows and these are reported to the Board against KRIs. IPL also reviews stress test scenarios to assess the sensitivity to lapse risk as part of its ORSA process.

IPL's solvency position is sensitive to changes in the long-term lapse assumption. The sensitivity of the solvency position is considered on a regular basis through assessment of sensitivities to the long term lapse rate assumption used in the calculation of the non-unit BEL. More extreme movements in lapse rates are considered as part of the ORSA scenario analysis, including mass lapse type scenarios and more extreme movements in the long term lapse rate assumption.

C.1.2 Expense risk

This is the risk that the level of expenses incurred by the company, whether directly or indirectly related to the TIP scheme business, will increase to a level (or at a rate) which is greater than expected, thereby reducing the level of profit.

IPL has structured the most significant components of its cost base such that they are also directly linked to the value of the assets under management in order that the mismatch between the income and the expenses is minimised. Specifically, investment management fees and distribution are charged as a proportion of AMC and scheme administration costs are charged as a proportion of the value of assets under management.

IPL has a contractual agreement with Mercer for the administration of the scheme data such that fees are paid on the level of assets under management according to a tiered set of thresholds, subject to an absolute minimum amount. As this expense and the fund management expense are contractually agreed they are not subject to the same level of uncertainty as the overhead expenses.

During the year, a change in the intragroup arrangement with Invesco Asset Management Limited ("IAML") was agreed. Under the new arrangement, IAML will continue to receive 80% of IPL's AMC income but will also meet 80% of IPL's overhead expenses. This change has reduced IPL's overhead expenses.

IPL assesses the sensitivity of its balance sheet to a change in expenses through regular sensitivity analysis and as part of the ORSA process. Scenarios include increases to the level of overhead expenses and increases to the level of future expense inflation

C.2 Market Risk

Market risk refers to the risk of loss, or of adverse change in the financial position of IPL, resulting directly or indirectly from fluctuations in the level and in the volatility of market prices of assets, liabilities and financial instruments.

IPL's unit-linked policyholder liabilities are matched by appropriate asset holdings and therefore, after an adverse market event, policyholder assets will remain equal to the corresponding liabilities. Policyholder assets are invested in a range of investments and funds giving exposure to equity, bond and other markets that will be sensitive to fluctuations in equity valuations, credit spreads, interest rates and currencies. Such fluctuations may lead to changes in the value of the assets and policyholder liabilities.

IPL has additional exposure to fluctuations in interest rates because these affect the discount rates used in the calculation of the company's non-unit liabilities, the risk margin and the value of intragroup loans made by IPL to its parent company. Interest rate risk has increased in significance over the year as a result of an increase in the size of the interest rate stress contribution arising from the intragroup loans, driven by recent rises in long-term interest rates. Interest rate risk has also increased in its proportional contribution to the SCR over the year due to the significant decline in the size of the other components of the SCR calculation as the size of the unit-linked business has decreased.

Certain IPL funds, have a significant exposure to financial derivative instruments and may well have a different exposure to market risks than the company's other funds investing primarily in equities and bonds.

As with high lapse rates discussed above, the effect of adverse market movements on IPL is to reduce assets under management, and thereby income and future profits.

IPL seeks to manage its exposure to market risk and its consequences in a number of ways:

- Each portfolio of assets supporting the unit-linked funds is subject to monitoring and controls against agreed risk metrics, limits and tolerances;
- A significant proportion of IPL's expenses are charged as a proportion of assets under management, which serves to mitigate the effect of loss of revenue caused by market events;
- Revenues and expenses are subject to monitoring and are reported against KRIs;
- The Board of IPL has no appetite for market risk in respect of its own funds which are invested, in sterling, in cash or liquid money market funds.

IPL assesses the impact of market risks on its profit and solvency position through stress and scenarios tests, carried out as part of the ORSA process. Scenarios include analysing the impact of changes in interest rates, equity markets, inflation rates and credit spreads. These demonstrate that IPL is able to withstand extreme changes in market conditions whilst continuing to meet regulatory requirements.

C.3 Credit Risk

Credit risk refers to the risk of loss, or of an adverse movement in IPL's financial position resulting from the failure of any third party to honour its financial obligations to IPL – this includes failing to honour them in a timely manner; and/or changes in the credit standing of issuers of securities, counterparties and any debtors to which IPL is exposed.

Credit risk or events of default relating to the company's unit-linked assets will give rise to changes in the price of these assets and the effects on IPL are essentially the same as those discussed under market risk in section C.2 above.

The failure, through a credit event or otherwise, of a third party provider of administration services is dealt with under operational risk in section C.5 below.

The balance of credit risk exposure consists principally of the bank counterparties, short-term instruments and intercompany loans in which IPL invests its own fund assets. These assets are invested subject to a risk management framework specifying risk metrics, limits and tolerances on credit ratings and single counterparty exposures.

Counterparty credit risk has increased as a proportion of the SCR when compared to the previous year; however the absolute amount of the Counterparty Default risk module is very similar to the amount calculated as at 31 December 2021.

C.4 Liquidity Risk

Liquidity risk refers to the risk of being unable to generate sufficient cash at efficient cost to meet financial obligations as they fall due under business as usual and stress scenarios.

In respect of IPL's unit-linked liabilities, these are exactly matched by appropriate assets and therefore, upon partial or full surrender of a TIP scheme, the assets underlying the investment funds can be sold in order to provide the funds for transfer without recourse to any non-linked assets. IPL is exposed to the risk that it is unable to realise the full value of the unit-linked assets, or in a timely manner to meet policyholder liabilities.

A significant majority of the unit-linked assets consist of shares in UCITS funds managed by Invesco, with the balance invested in predominantly liquid equities and bonds. All portfolios, including those of the underlying UCITS funds, are subject to monitoring and controls against agreed risk metrics limits and tolerances including stress and scenario tests.

IPL's non-unit related assets are invested almost exclusively in cash-type investments and are therefore freely and immediately available to pay any other liabilities that arise. The company's non-scheme and non-policyholder related payments such as payments to suppliers, tax, overhead expenses, etc. are relatively stable and can be funded directly from the highly liquid surplus assets held by IPL.

Liquidity risk is a relatively low impact risk compared with underwriting risk and market risk.

IPL has no contractual premiums, so there is no expected profit in future premiums.

C.5 Operational Risk

Operational risk refers to the risk(s) that the operational performance of IPL or its outsourced service provider deteriorates. This includes the occurrence of an adverse operational risk event.

IPL has exposure to operational risk in a number of areas: failure or errors in administration of schemes; failure to invest correctly; failure to comply with legal or regulatory requirements; failure of a third party administrator; fraud; loss of key personnel and others.

Different operational risk scenarios can result in a range of adverse outcomes such as lower revenues through loss of clients, higher on-going expenses, large one-off costs, reputational damage and others.

The Operational Risk Management framework supports the business in the management of operational risks and in the implementation of suitable controls.

At a high level, core Operational Risk Management processes include:

- the facilitation and coordination of Risk and Control Self-Assessments ("RCSA") and independent challenge of risks raised by the business.
- Incident Management and Reporting (management of errors and incident workflow within an internal Risk Management System; independent follow up on logged incidents; ensuring effective mitigation and investigation of any potential trends for systemic issues).
- Board/Committee reporting on key areas of risks (including Key Risk Indicators); reporting to IPL Audit and Risk Committee.
- Coordination of the operational risk capital scenarios based on a range or risk data including losses, RCSAs and external events.

Conduct risks (which include risks associated with the attitude and behaviours of Invesco employees that influence business decisions and actions which in turn impact the outcomes for IPL policyholders, employees and shareholders) are embedded in departmental risk profiles and may be escalated as deemed appropriate.

A number of operational risks, including those arising from third-party administrators, the loss of key personnel, the impact of a cyber and data risk and the impact of a compliance breach, are assessed. While such scenario's generally impact profitability, the results show that IPL is able to continue to meet regulatory solvency requirements under such scenarios.

C.6 Other risks (including Climate Change)

IPL has exposure to other risks, including but not limited to asset-liability matching risk, and concentration risk. Relative to those described above, these represent lower impact risks, but are the subject of risk management policies and are monitored and controlled using the same risk management framework as the major risks.

IPL has reviewed the impact of climate change on the business model and continues to ensure that internal policies remain up to date with respect to climate change considerations. The group's approach to climate change is integrated into our broader governance structure covering ESG responsibility at investment level and corporate responsibility at operational level, as set out in the 'Environmental, social and governance policies' section of this report.

The Invesco group's commitment to ESG investing ensures that climate change considerations are integrated into our investment decisions, and the importance placed on ESG has led to the launch of structural governance oversight, comprising a Corporate Responsibility Committee ("CRC"), the Corporate Responsibility Committee Working Group and ESG Regional Working Groups. These groups are responsible for monitoring climate related issues and opportunities and acting upon them.

IPL has defined a framework for Environmental Management System ("EMS") governance to address the risk of climate change within our operations. To ensure the effective management and continuous improvement of Invesco's EMS, operational EMS responsibilities were assigned to Corporate Properties, supported by local facilities teams and subcontracted services.

The risks and impacts of climate change to the IPL and its clients cannot be understated. Global average temperatures over the last five years have been the hottest on record. Despite the UNFCCC Paris agreement, the current trend of increasing CO2 emissions is expected to continue with global temperatures likely to exceed preindustrial levels by at least 2 degrees centigrade and weather events (floods, droughts, windstorms) increasing in frequency and severity. Disclosure of potential impacts against various climate scenarios and time horizons will become increasingly common for all companies. At an Enterprise (i.e. IPL legal entity) level, IPL consider the risk to be an influencing factor to its operational and regulatory risk profile.

C.7 Any other information

Prudent Person Principle
According to Article 132 of Directive 2009/138/EC, all investments held by insurance and reinsurance undertakings should be managed in accordance with the "Prudent Person Principle".

The Prudent Person Principle requires companies to only invest in assets and instruments:

- that they can properly identify, measure, monitor, manage, control and report;
- that ensure the security, quality, liquidity and profitability of the portfolio as a whole;
- that are appropriate to the nature and duration of the company's insurance and reinsurance liabilities; and
- that are in the best interest of policyholders and beneficiaries.

IPL fulfils the obligations of the prudent person principle. The majority of IPL's assets are unit-linked contracts whereby the policyholders choose their own investments. For non-policyholder assets, IPL invests almost exclusively in cash-type investments.

D.VALUATION FOR SOLVENCY PURPOSES

D.1 Assets

D.1.1 Total Assets

The total value of assets held by IPL on a Solvency II and Financial Statement basis as at 31 December 2022 and 2021 were as follows:

IPL Asset Holding, as at December 2022 (£m)

	Per Solvency II	Per Financial Statements	Difference
Assets held to match linked liabilities	555.9	555.9	-
Reinsurers' asset	0.1	0.1	-
Intra-group loan to parent	19.4	20.0	0.6
Investments	22.0	22.0	-
Cash and cash equivalents	2.4	2.4	-
Trade receivables	0.1	0.1	-
Other	20.0	20.0	-
Total	**619.9**	**620.5**	**0.6**

IPL Asset Holding, as at December 2021 (£m)

	Per Solvency II	Per Financial Statements	Difference
Assets held to match linked liabilities	1,397.6	1,397.6	-
Reinsurers' asset	0.2	0.2	-
Intra-group loan to parent	20.4	20.0	-0.4
Investments	21.9	21.9	-
Cash and cash equivalents	3.5	3.5	-
Trade receivables	0.1	0.1	-
Other	27.5	27.5	-
Total	**1,471.2**	**1,470.8**	**-0.4**

Total assets on a solvency II basis fell by £851.3m over the year. The reduction is largely attributable to £841.8m reduction in AUM following significant outflows during 2022.

There have been no changes to recognition or valuation bases for assets during the year.

D.1.2 Unit-linked Assets

For IPL, the unit linked assets in respect of amounts invested in Invesco investment funds are valued at market value (bid price at midday on the last business day of the year). A breakdown of the value by fund, is given below.

IPL unit fund values	31 Dec 2022	31 Dec 2021
Fund name	(£m)	(£m)
Invesco Global Targeted Returns Pension Fund	203	636
Invesco Managed Pension Fund	79	85
Invesco UK Smaller Companies Equity Pension Fund	68	95
Invesco UK Equities Pension Fund	58	74
Invesco Balanced Risk 10 Pension Fund	37	98
Invesco Global Equity Pension Fund	30	35
Invesco European Equity Pension Fund	29	30
Invesco Physical Gold	28	10
Invesco International Equity Pension Fund	16	18
Invesco Balanced Risk 8 Pension Fund	9	161
Invesco Global Equity Growth Pension Fund	-	128
Invesco Growth Managed Pension Fund	-	13
Invesco Global Equity ex UK Pension Fund	-	6

Invesco Cash Pension Fund	-	5
Invesco Long Gilt Pension Fund	-	2
Invesco UK Corporate Bond Pension Fund	-	2
	556	**1,398**

Total unit-linked assets decreased from £1.4bn to £0.6bn due to outflows during 2022.

The Invesco Long Gilt Pension Fund, Invesco Cash Pension Fund, Invesco UK Corporate Bond Pension Fund, Invesco Global Equity Growth Pension Fund, Invesco Global Equity ex UK Pension Fund and the Invesco Growth Managed Pension Fund were liquidated during 2022.

The unit-linked assets are valued at fair value in the financial statements and under Solvency II.

The company uses bid prices to value its quoted financial investments which management believe to be representative of fair value. Actively traded investments without quoted prices are valued using external broker bid prices. If there is no active established market for an investment, the company applies an appropriate valuation technique such as discounted cash flow technique.

The fair value of the unit-linked assets is categorised as follows as at 31 December 2022:

Level 1 – fair value based on quoted prices in active markets for identical assets;

Level 2 – fair values based on valuation techniques using observable inputs other than quoted prices within level 1; and

Level 3 – fair values based on valuation techniques using inputs that are not based on observable market data.

Unit-linked assets at fair value £'000s	Dec-22	Dec-21
Level 1	555,856	1,395,246
Level 2	-	2,375
Level 3	-	-
Total	**555,856**	**1,397,621**

Level 3 assets include financial instruments whose values are determined using pricing models, discounted cash flow methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant management judgment or estimation.

The fair values for investments are generally sourced from third parties. The fair values of securities are based upon quoted market values where available, or "evaluated bid" prices provided by third party pricing services ("pricing services") where quoted market values are not available.

The pricing services use market approaches to valuations using primarily Level 2 inputs in the vast majority of valuations, or some form of discounted cash flow analysis, to obtain investment values for a small percentage of securities for which they provide a price.

Standard inputs to the valuations provided by the pricing services listed in approximate order of priority for use when available include: reported trades, benchmark yields, broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, and reference data. The pricing services may prioritise inputs differently on any given day for any security, and not all inputs listed are available for use in the evaluation process on any given day for each security evaluation; however, the pricing services also monitor market indicators, customer feedback through a price challenge process and industry and economic events. Information of this nature is a trigger to acquire further corroborating market data.

When these inputs are not available, they identify "buckets" of similar securities (allocated by asset class types, sectors, sub-sectors, contractual cash flows/structure, and credit rating characteristics) and apply some form of matrix or other modelled pricing to determine an appropriate security value which represents their best estimate as to what a buyer in the marketplace would pay for a security in a current sale. Prices provided by independent pricing services and independent broker quotes can vary widely even for the same security. The inherent nature of the vast majority of these assets means that, in normal market conditions, there is unlikely to be significant change in the specific underlying assets classified as level 3. There were no significant changes to inputs or valuation methods during 2022.

D.1.3 Non-linked assets

The company's non-linked assets have been split into a number of distinct categories, as set out below:

- Reinsurance asset – the present value of the payments expected to arise in respect of IPL's in-payment annuities.
- Intragroup Loan – two £10 million loans from IPL to Invesco UK.
- Cash and Short-Term Money Market Instruments – i.e. the cash deposits currently held with three banks: HSBC, MUFG and RBS and an institutional money market fund managed by Invesco, Invesco Liquidity Funds plc (ILF).
- Trade receivables and other – comprises trade debtors, accrued income and prepayments

The three valuation approaches defined under Solvency II are set out in the table below along with a description of the assets have been valued under each method.

1. Category	2. Description	3. Asset
Market Approach	Uses prices and other relevant and observable information generated by market transactions involving identical or similar assets, liabilities or group of assets and liabilities.	• Cash and Short-Term Money Market Instruments – i.e. the cash deposits currently held with three banks, HSBC, RBS and MUFG, and the ILF fund.
Income Approach	Converts future amounts, such as cash flows or income or expenses, to a single 'Present Value' current amount.	• Reinsurance Asset – the (notional) present value of the payments expected to be received in respect of IPL's in-payment annuities. • Intragroup Loan – two £10 million loans from IPL to Invesco UK.
Cost Approach	Reflects the amount that would be required currently to replace the service capacity of an asset	• Trade receivables and other

D.1.4 Non-linked assets: Reinsurance asset

IPL has a small block of wholly reinsured in-payment annuities. The policies are administered by the reinsurer and the reinsurance asset is notional in the sense that IPL will not receive any future payments from the reinsurer. Gross (of reinsurance) policyholder liabilities must be included within the best estimate liability calculation. The discounted value of best estimate cash flows expected to arise on any reinsurance contracts are shown on the asset side of the balance sheet.

The value of the reinsurance cash flows is adjusted to allow for expected defaults, where the default adjustment is based on the probability of default and the loss given default. The probability of default is based on the credit rating of the reinsurer as at the valuation date.

D.1.5 Non-linked assets: Intragroup loan – alternative valuation basis

IPL has issued £20m of loans to its holding company within the Invesco Group. In order to comply with Solvency II regulations, the value of the intragroup loan is taken to be the discounted value of the future proceeds on the loan discounted using the PRA risk free rates. An allowance has been made for default by deducting an amount derived from the probability of default (based on Invesco UK's credit rating) and a loss given a default (based on the value of the loan).

The probability of default is taken as Invesco UK's one year default probability based on its credit rating (i.e. an A grade credit rating) and the loss given default is taken to be the face value of the loans i.e. £20m.

D.1.6 Non-linked assets: cash and cash equivalents

IPL holds a small proportion of its non-scheme related assets in three bank deposit accounts (HSBC, MUFG and RBS).
Cash and cash equivalents are defined as follows:

- Cash = cash on hand + demand deposits
- Cash equivalents = short-term, highly liquid investments which are:
  (1) readily convertible to cash at the known amounts; and
  (2) subject to insignificant risk of value changes

Cash and cash equivalents comprise cash at hand, deposits held at call with banks and other short term highly liquid investments with original maturities of three months or less are classified as financial instruments and valued at face value.

D.1.7 Non-linked assets – Investments (short term money market instruments)

The majority of IPL's non-scheme related assets are held in a collective investment scheme (i.e. Invesco Liquidity Funds). This is valued at face value in the financial statements and under Solvency II.

D.1.8 Non-linked assets -Trade receivables and other

Trade receivables and other comprises trade debtors, accrued income and prepayments. These are taken at their balance sheet value as reported in IPL's financial accounts. For year-end 2022, these amounted to £20.1m (2021: £27.6m).

D.1.9 Differences between valuation methods

In the financial statements the intragroup loans are valued at book value versus a present value (discounted value of the future proceeds) on a solvency II basis, resulting in a difference of £0.6m. There are no other material differences between the bases, methods and main assumptions used for the valuation of the above assets for solvency purposes, and those used for the valuation in financial statements.

D.2 Technical Provisions

D.2.1 Homogenous Risk Groups ("HRG")

The majority of IPL's business consists of unit linked long-term business with no guarantees, options or enhanced surrender terms. These contracts are, in the main, Trustee Investment Plans ("TIPs"). The company also maintains a small portfolio of non-profit annuities which are 100% reinsured.

IPL therefore has 2 distinct HRGs which directly correspond to the above 2 product classes:

i. The TIP schemes ('HRG1'), and

ii. The in-payment annuities ('HRG2').

Technical provisions are calculated separately for these two product groups. The net (of reinsurance) technical provisions for HRG2 are immaterial as the business within this HRG is fully reinsured and the gross technical provisions are very small relative to IPL as a whole. The risk margin for HRG2 is zero.

D.2.2 Best Estimate Liabilities

The best estimate liabilities ("BEL") under Solvency II is defined as the "probability weighted average of future cash flows taking account of the time value of money." The best estimate liabilities can be broken down as follows:

- The non-linked liability in respect of the in-force TIP schemes. This is valued as the projected value of future non-unit related cash flows including those into the business such as annual management charges ("AMC"), and cash flows out from the business such as commission and expenses. The cash flows are discounted using a risk-free rate (the prevailing PRA yield curve) and valued using best estimate assumptions.
- The BEL in respect of the in-force annuities.
- The expense reserve in respect of the in-force business. This is valued as the difference between the projected overhead expenses using IPL's expense forecast and the modelled overhead expenses output from the Solvency II model, assuming £30 million of new business per annum. An additional one-off expense of £1.5 million is assumed in projection year 5 to cover the costs of wind down (see section D.2.5 for more detail).

The following tables set out the main assumptions used to calculate the technical provisions as at 31 December 2022 and 2021:

Solvency II Pillar 1 – TIP Scheme BEL Assumptions		
Assumption		
Economic	**2022**	**2021**
Expense Inflation	4.00%	4.00%
Unit Growth Rate	PRA Yield Curve	PRA Yield Curve
Discount Rate	PRA Yield Curve	PRA Yield Curve
Lapse Rate		
TIP scheme lapse rate – GTR schemes	100.0%	50.0%
TIP scheme lapse rate – Non GTR schemes	Year 1: 20% Year 2: 20% Year 3+: 10%	10.0%
Expenses		
Ongoing Overhead Expenses	20% of £499k	£754k
Scheme Administration Fees	Tiered charge structure	Tiered charge structure
Fund Management Fees	80% of AMC	80% of AMC

The long-term lapse assumption for year-end 2021 was 10% p.a. for non-GTR funds and 50% p.a. for GTR funds for each year of the projection. This has been revised as at year-end 2022 to reflect the remaining business and recent unit fund outflow experience data. The new basis uses non-GTR lapse rates of 20% p.a. in year 1 and 2 and 10% p.a. thereafter, along with a 100% lapse rate for GTR funds (i.e. the GTR funds are assumed to fully run off by the end of 2023).

As mentioned in paragraph C.1.2, effective from 1 July 2022, a change in the intragroup arrangement with IAML has been agreed. Under the new arrangement, IAML will continue to receive 80% of AMC income but will also meet 80% of IPL's overhead expenses. This change has reduced the overhead expenses retained by IPL.

Solvency II Pillar 1 – Annuitant Longevity Assumptions		
Males	**2022**	**2021**
Base Mortality Table	PMA16	PMA16
Proportion of Base Table	98.00%	99.00%
Improvement Model	CMI 2021	CMI 2020
Proportion of Improvement Table	100%	100%
Long Term Rate	1.50%	1.50%
Females		
Base Mortality Table	PFA16	PFA16
Proportion of Base Table	97.00%	98.00%
Improvement Model	CMI 2021	CMI 2020
Proportion of Improvement Table	100%	100%
Long Term Rate	1.40%	1.40%

The annuity basis has been amended relative to the year-end 2021 recommendation. In particular, the proportion of the base table has been updated for both males and females to reflect updated Continuous Mortality Investigation ("**CMI**") Working Papers and the improvement model has been updated from the CMI 2020 model to the CMI 2021 model.

More information on the assumptions and level of uncertainty associated with them is given in Section D.2.6.

D.2.3 Risk Margin

Actuarial judgement has been used in determining the Risk Margin for IPL in line with Article 58 of the Delegated Regulation.
In line with Article 58 (a), for the purposes of calculating the risk margin for the 2022

Solvency II balance sheet, IPL has projected each individual SCR component using separate measures to approximate the value of the SCR at each future time period.

SCR Component	Measure used to forecast capital requirement
Lapse Risk	Runs off in line with the non-unit best estimate liability, unless this becomes positive at which point it runs off in line with the unit best estimate liability
Expense Risk	Runs off in line with the best estimate liability
Counterparty Default Risk	Type 1 risk runs off in line with AUM Type 2 risk remains constant throughout the projection
Operational Risk	Runs off in line with the AUM

For IPL, market risks i.e. equity, spread and interest rate risk are classed as 'hedgeable risks' and are therefore not included in the risk margin calculation.

D.2.4 *Technical Provisions*

The following table shows the technical provisions as at 31 December 2022:

IPL Solvency II Balance Sheet, £m	Dec-22	Dec-21
Assets		
Market value of assets	619.9	1,471.2
Technical Provisions		
Unit-linked liability	555.9	1,397.6
Non-unit liability	-0.4	4.6
Annuities	0.1	0.2
Expense reserve	1.6	0
Risk margin	0.4	6.4
Subtotal	557.6	1,408.8
Excess Assets (before TMTP, Other liabilities and Deferred Tax)	**62.3**	**62.4**

The Non-unit liability has decreased by £5m to -£0.4m as at the end of December 2022, largely due to the reduced future expenses under the revised expense arrangement and increase in yield curve assumption. As a result, the now negative value represents the present value of future losses.

The Risk margin has decreased by £6.0m to £0.4m; this is due to the revised expense arrangement, increase in yield curve assumption, reduction in operational risk and a the management action to use a short contract boundary (5-year projection – see below section on Contract Boundaries).

The Expense reserve has been added at December 2022 to ensure that IPL has sufficient reserves to cover its future projected expenses.

The table below summarises the reduction in the AUM.

TIP Scheme by source	**2022 Unit-linked Reserve £m**	**2021 Unit-linked Reserve £m**
Corporate (GTR)	202.6	636.2
Corporate (Other)	300.9	696.1
Retail	52.3	65.3
Total	**555.9**	**1,397.6**

D.2.5 Contract Boundaries

For unit-linked business, the contract boundary is the point beyond which future premiums and associated obligations (i.e. charges and expenses) will not be considered in the cash flow projection of the contract.

For IPL the contract boundary is assumed to be immediate and in the cash flow projection of in-force TIP schemes future premiums are not taken into account. There is no obligation for scheme-holders to make future premiums in respect of the TIP schemes which means that forecasting any future premium contributions for inclusion in the cash flow projection is unreliable. Therefore the future charges and expenses allowed for within the calculation of the BEL relate only to the existing AUM. This has the effect of assuming the contracts are 'paid-up' at the valuation date. The approach adopted is consistent with EIOPA Q&A 827 on contract boundaries (13 September 2016) and the PRA letter to Chief Actuaries (13 July 2018).

There has been on-going discussion in the industry with respect to the non-unit BEL/present value of future profits ("PVFP") included in the balance sheets of firms writing unit-linked business and whether it should be calculated over a long or short projection period. IPL has previously calculated its PVFP using a long projection period (100 years). At year-end 2022 IPL has implemented a management action under which it is assumed IPL would elect to terminate its unit-linked contracts, transfer its annuity business to a third party and seek cancellation of its regulatory permissions shortly before the point at which IPL anticipates (based upon current levels of fund attrition) that net AMC income would no longer be sufficient to meet the Company's overhead costs. Under the assumptions used to determine the Solvency II financial position, this is projected to be around 5 years in the future and consequently IPL has used a projection period of 5 years at year-end 2022.

D.2.6 Level of uncertainty associated with the technical provisions

The calculation of the technical provisions is exposed to uncertainty through the use of best estimate assumptions and any uncertainty in the completeness and accuracy of the data. The assumptions used in the calculation of the best estimate liability are outlined above and are listed below together with a comment of the degree of uncertainty contained within each assumption. There is no further uncertainty contained within the calculation of the technical provisions.

The impact of changes to the best estimate assumptions is considered, amongst other things, as part of the ORSA.

D.2.7 Expenses

The assumptions in respect of future fund-related expenses are set with reference to the corresponding contractual agreements. These agreements are expected to remain in place at least over the short-to medium-term, and the level of uncertainty associated with these assumptions is therefore limited to the extent that the contracts are renegotiated in the long-term.

The other expenses are set with reference to IPL's expense forecast and business plan. These expenses are subject to salary and cost inflation which are uncertain and somewhat outside of the company's control. The inflation assumption is set with reference to a market consistent view of long-term inflation.

D.2.8 Persistency

The persistency assumption is significant for the calculation of PVFP, the SCR and the technical provisions. Persistency experience is analysed and monitored on a quarterly basis by the Actuarial Function and observed experience, together with the expert judgement of the senior sales and marketing team, has informed the Board's best estimate long-term lapse rate assumption for the business.

D.2.9 Unit growth rate and discount rate

IPL's economic assumptions are consistent with the assumption in respect of future unit growth, which is taken to be the same as that set out by the PRA. There is no allowance for future variation or any volatility in the future economic assumptions as the cash flow projection is deterministic.

D.2.10 Data

The data used for the purposes of calculating the solvency position of the firm as at 31 December 2022 is complete and accurate and meets the requirements set out in IPL's data policy.

D.2.11 Differences between valuation methods

There are no material differences between the bases, methods and main assumptions used for the valuation of the technical provisions for solvency purposes, and those used for the valuation in financial statements, other than those disclosed in section E.1.4.

D.2.12 Matching adjustment, volatility adjustment and transitional risk-free interest rate term structure

IPL does not make use of the matching adjustment, volatility adjustment, transitional measure on technical provisions, or transitional measure on the risk-free interest rate term structure.

D.2.13 Reinsurance recoverables

The value of the reinsurance cash flows is adjusted to allow for expected defaults, where the default adjustment is based on the probability of default and the loss given default. The probability of default is based on the credit rating of the reinsurer as at the valuation date.

The annuity book is reinsured through Royal London, which has a credit rating of 'A' as at 31 December 2022. The associated probability of default over a one year period has therefore been set at 0.05% in line with the S&P 2021 Annual Global Corporate Default Study and Rating Transitions.

D.2.14 Material changes between reporting periods

During 2021 the Board resolved to adopt a lapse rate assumption of 20% p.a. in years 1 and 2 and 10% p.a. thereafter for the Non-GTR funds (2021: 10% p.a. for all projection periods), alongside a 100% lapse rate for GTR funds (2021: 50% p.a.). This reflected observed lapse rates being consistently higher over recent years, particularly within schemes invested in the GTR fund and an expectation that all of the remaining GTR business will lapse within the next 12 months. This assumption change decreased the PVFP by £0.5 million.

Additionally, the overhead expense assumption has materially reduced reflecting the new expense arrangement described in paragraph C.1.2 and revised expense forecast. The reduction in the expense assumption has reduced technical provisions relative to the previous reporting period.

Finally, the projection period was altered from a long-term projection to a short-term projection. IPL has undertaken work over the previous 12 months to assess the strategic options for the business in the context of declining AUM and profit. Under the assumptions used to determine the Solvency II financial position, net AMC income is projected to fall below the level of overheads within the next 5 years and therefore a management action to wind up the company shortly prior to reaching this point has been specified. The change in projection period decreased the PVFP by £0.6 million.

There have been no other material changes to the assumptions or methodology used in the calculation of technical provisions relative to the previous reporting period.

D.3 Other liabilities

The following table summarises the IPL's 'Other Liabilities' as at 31 December 2022

IPL Other Liabilities, as at December 2022 (£m)	Per Solvency II	Per Financial Statements	Difference
Amounts due to other group undertakings	0.3	0.3	-
Accruals and deferred income	0.4	0.4	-
Corporation tax	0.0	0.0	-
Other	17.7	17.7	-
Deferred tax	0.0	0.0	-
Total Other Liabilities	**18.4**	**18.4**	**-**

Other liabilities are reported at fair value for Solvency II and in financial statements in line with FRS 101.

When compared to 31 December 2021, the total 'other liabilities' on a Solvency II basis shown above have decreased by £9.8m.

D.3.1 Deferred Tax

A deferred tax liability arises due to the difference between the statutory measure of policyholder liabilities and the loan and the Solvency II measure of technical provisions and the loan. The deferred tax liability has been calculated at a rate of 25% and has been valued in full.

The deferred tax liability respect of IPL's present value of future profits arising on the unit-linked business results in a corresponding reduction in the SCR due to the loss-absorbing capacity of deferred taxes.

The portion of the deferred tax liability in respect of the intragroup loan, however, is not deemed to be loss-absorbing under Solvency II.

Deferred taxes comprise the amount of income taxes payable or recoverable in future periods in respect of taxable temporary differences.

The DTL calculated at 31 December 2022 is zero and consequently there is no loss-absorbing capacity of deferred tax adjustment to the SCR.

D.4 Alternative methods for valuation

There are no material differences between the bases, methods and assumptions used for the valuation of other liabilities for solvency purposes and those used for IPL's valuation in financial statements.

IPL has not used any alternative valuation methods in accordance with Article 10(5) of the Delegated Regulation for valuation of its liabilities.

D.5 Any other information

There is no other material information regarding the valuation of assets and liabilities for solvency purposes.

E. CAPITAL MANAGEMENT

E.1 Own funds

E.1.1 Objectives, policies, process and time horizon used for business planning for IPL's own fund.

IPL's business plan and objectives are prepared and assessed on a rolling 5 year period and consider the company's current solvency position, future expense budgets, planned new business levels and various other developments such as the launch of new products or the potential renegotiation of outsourcing agreements.

IPL manages its capital and own funds such that it maintains an appropriate coverage ratio of its capital requirements.

The Board is keen that day to day market fluctuations can be tolerated without recourse to management actions and therefore has decided that, in normal business conditions, it will target an overall requirement for IPL to hold capital of approximately 160% of the SCR capital requirements under the Solvency II regime. 160% of the SCR is known as the "target operating level" of IPL's SCR coverage.

Management actions will be taken when capital resources fall, or are projected to fall, below 150% of the Solvency II SCR. These actions will include:

- More frequent monitoring: weekly by risk, finance and actuarial and regular reports to the Board (by email with a conference call if the CEO believes it is necessary).
- A formal exercise by finance and actuarial to re-do the projections and some sensitivities regarding possible future effects on coverage of the SCR. These sensitivities would be expected to include at least market scenarios and new business scenarios.

Having taken the above action, if the capital coverage were to fall to 120% then a Board meeting would be convened (in person or by phone) and measures to directly increase the capital coverage of the Solvency II SCR back to 150% would be taken. These actions would include (but are not limited to) limiting new business levels and requesting a capital injection from Invesco UK. 120% is known as the "lower tolerance" of IPL's SCR coverage in the context of the Board's risk appetite.

E.1.2 Classification of Own Funds

The source of the capital held within IPL is either paid-in share capital or retained earnings. Consistent with Article 69 (a) (i) & (v) of the Solvency II Delegated Act, this has been classified as tier 1 basic own funds. IPL does not have any ancillary own funds and all capital held within IPL is therefore eligible to cover the Solvency Capital Requirement and the Minimum Capital Requirement.

The following table set out the total own funds:

IPL Own Funds £'000	31 Dec 2022	31 Dec 2021
Share capital	19,876	19,876
Reconciliation reserve	23,997	14,154
Total Own Funds	**43,873**	**34,030**

Total own funds increased by £9.9m from £34.0m to £43.9m over the year:

- There were no changes to share capital during the year.
- The reconciliation reserve comprises:
  - Retained profits of £26.2m (2021: £25.0m)
  - Solvency II adjustments of £-2.2m (2021: -£10.8m) as detailed in section E.1.3 below.

E.1.3 Eligible own funds to cover SCR and MCR

The following tables sets out the Solvency II balance sheet as at 31 December 2022 and 2021, including the amount of eligible own funds to cover the SCR and MCR.

IPL Balance Sheet 31 Dec 2022 (£m)	Per Solvency II	Per Financial Statements	Difference
Assets			
Market value of assets	619.9	620.5	-0.6
Liabilities			
Unit-linked liability	555.9	555.9	-
Non-unit liability (PVFP)	-0.4	-	-0.4
Annuities	0.1	0.1	-
Expense reserve	1.6	-	1.6
BEL	**557.2**		
Risk margin	0.4	-	0.4
TMTP	-	-	-
Technical provisions	**557.6**	**556.0**	**1.6**
Deferred tax	-	-	-
Other liabilities	18.4	18.4	-
Total Liabilities	**576.0**	**574.4**	**1.6**
Own Funds	**43.9**	**46.1**	**-2.2**
MCR	3.4		
SCR	3.0		
Surplus	**40.4**		
Own Funds / SCR ratio	**1451%**		
Own Funds / MCR ratio	**1274%**		

IPL Balance Sheet 31 Dec 2021 (£m)	Per Solvency II	Per Financial Statements	Difference
Assets			
Market value of assets	1,471.2	1,470.8	0.4
Liabilities			
Unit-linked liability	1,397.6	1,397.6	-
Non-unit liability (PVFP)	4.6	-	4.6
Annuities	0.2	0.2	-
BEL	**1,402.4**		
Risk margin	6.4	-	6.4
TMTP	-	-	-
Technical provisions	**1,408.8**	**1,397.8**	**11.0**
Deferred tax	0.1	-	0.1
Other liabilities	28.2	28.2	-
Total Liabilities	**1,437.1**	**1,426.0**	**11.1**
Own Funds	**34.0**	**44.8**	**-10.8**
MCR	7.0		
SCR	15.7		
Surplus	**18.4**		
Own Funds / SCR ratio	**217%**		
Own Funds / MCR ratio	**483%**		

E.1.4 Differences in valuation methodology

The value of own funds on a Solvency II basis totals £43.9m (2021: £34.0m), which is £2.2m less than own funds per financial statements of £46.1m (2021: £44.8m).

The difference relates to the PVFP, risk margin and additional expense reserve which are not recognised under statutory accounting standards. There is also an additional difference on the asset side of the balance sheet between the Solvency II value of the intragroup loan and the face value used for the financial statements.

E.1.5 Ancillary own funds, transitional arrangements and any other restrictions on own funds

As previously mentioned, all of IPL's own funds are classified as Tier 1 Basic Own Funds, therefore IPL does not have any ancillary own funds. IPL does not apply transitional arrangements to its own funds, and there are no other restrictions affecting the availability and transferability of own funds within IPL. There are no items deducted from own funds.

E.2 SCR and MCR

The table below shows IPL's SCR and MCR as at 31 December 2022 and 2021.

IPL Capital Requirements, £m		
	31 Dec. 2022	31 Dec. 2021
MCR	3.4	7.0
SCR	3.0	15.7

E.2.1 Calculation of the SCR

The table below shows IPL's SCR as at 31 December 2022, split across each of the different risk modules.

IPL - SCR	
	Capital Impact, £m
	YE 2022
Market risk	1.2
Counterparty default risk	0.8
Insurance (Life) risk	0.7
Insurance (Health) risk	-
Insurance (Non-life) risk	-
BSCR	**1.9**
Operational risk	1.1
Adjustment	(0.0)
SCR	**3.0**
Diversification benefit	(0.8)

The total deferred tax liability as at 31 December 2022 is zero. The deferred tax liability in respect of IPL's PVFP is deemed to be loss-absorbing under the Solvency II regulations. The SCR is adjusted for the loss-absorbing effect of the deferred tax liability ("Adjustment"). As at 31 December 2022 the deferred tax on the future profits is zero due to the risk margin not being offset by the non-unit BEL.

E.2.2 Change in the value of the SCR

Given the nature of IPL's business, where the unit-linked liability is matched exactly with unit-linked assets, and that the non-linked assets are invested in low risk and / or cash type instruments, the effects of the insurance risk, market risk, and credit risk stresses on IPL are determined by considering their effect on IPL's PVFP.

Future profits are driven by net annual management charges on the AUM and so, IPL's AUM declining during the year leads to a reduction in the PVFP of the in-force business. However, this was outweighed by the significant reduction in expenses attributable to IPL under the new expense arrangement with IAML. This means that the impacts of the standard formula stress tests have remained relatively stable for market risk and counterparty default risk. However, the contribution to the SCR from the life underwriting risk module has significantly decreased over the year, largely driven by the new expense arrangement, decrease in AUM and updated lapse assumptions.

Additionally, the reduction in overhead expenses over the past year has reduced the operational risk capital requirement component of the SCR.

E.2.3 Simplifications applied to standard formula capital calculations

An approximate approach has been applied for the market risk stress tests in respect of IPL's Global Targeted Risk Fund ("GTR Fund") and the Balanced Risk Funds ("BR8 Fund", "BR10 Fund") using the look-through stress tests. Where necessary the results of these internal stress tests have been scaled to be consistent with the standard formula parameterisations of the corresponding SCR stress tests.

E.2.4 Undertaking-specific parameters within the standard formula

IPL has not used any undertaking-specific parameters in its year-end 2022 solvency valuation.

E.2.5 Capital add-ons

There has been no capital add-on imposed on IPL's SCR for the year-end 2022 solvency valuation.

E.2.6 Calculation of the MCR

The MCR is calculated using a formula based on technical provisions (excluding the risk margin) and capital at risk but must be no lower or greater than 25% and 45% of the SCR respectively. The MCR is also subject to an absolute minimum of €4.0 million (£3.4 million). The absolute minimum was increased by the PRA from 31 December 2021.

The table below shows the key inputs to the MCR formula for the calculation of IPL's MCR as at 31 December 2022 and 2021.

IPL Minimum Capital Requirement, £m

	31 Dec. 2022	31 Dec. 2021
Technical Provisions (before TMTP)	557.6	1,408.8
Capital at Risk	0.4	0
SCR	3.0	15.7
MCR Floor (converted to £)	3.4	3.1
MCR	**3.4**	**7.0**

E.3 Duration-based equity risk sub-module in the SCR calculation

This does not apply to IPL, therefore the standard formula stress test has been used to assess the equity risk capital component of IPL's SCR.

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

IPL does not make use of an internal model or partial internal model for assessing its solvency capital requirements under Solvency II.

E.5 Non-compliance with the MCR and SCR

Since the implementation of Solvency II on 1 January 2016, IPL has complied with all capital requirements, including both the MCR and the SCR.

E.6 Any other information

IPL has maintained a sufficient level of Own Funds to remain above its target operating level of SCR coverage of 160% throughout the year.

Capital requirements will continue to be monitored closely and inline with IPL's risk appetite.