



# Invensys Pension Scheme

## Climate Change Report 2025

Issued by Invensys Pension Trustee Limited (the **Trustee**) in its role as trustee of the Invensys Pension Scheme (the **Scheme**)

Scheme Registration Number: 10143856

# Executive Summary

## Introduction from the Chair of the Trustee Board

I am pleased to present the Trustee's Climate Change Report for the Scheme year ending 31 March 2025. The report has been prepared in accordance with the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 (the Climate Regulations), which came into force on 1 October 2021 and are based on the recommendations of the Taskforce on Climate-related Financial Disclosures. The requirements under the Climate Regulations have applied to the Scheme since 1 October 2022. The report comprises four main sections covering Governance, Strategy, Risk Management, and Metrics and Targets.

## Executive Summary

The Trustee has an ambition of aligning the investments of the Scheme with the goals of the Paris Agreement, to the extent that it is not in contradiction with the financial interests of members. The Trustee expects as a result that, by 2050, the Scheme will be invested in a portfolio of assets with Net Zero emissions. As part of that ambition the Trustee had set the target that by 31 March 2028 at least 35% of bonds held within the Scheme's Active Bond Funds should be issued by companies that are aligned or aligning with the Paris Agreement.

I am pleased to report that this target has been achieved. Indeed, 36% of the Active Bond Funds were invested in aligned or aligning companies as at 31 March 2025, compared to 31% as at 31 March 2024.

The allocation to companies within the investment mandates deemed to be high emitters has continued to decrease, and within this group, the proportion of emissions coming from companies that are either aligned or aligning or subject to a collective engagement on climate change has increased. In other mandates, the proportion invested in aligned or aligning companies has also increased during the year.

The other metrics that the Trustee monitors also show good progress compared to last year. Whilst the coverage and quality of climate data on the Scheme's assets has remained broadly unchanged, the estimated emissions and carbon footprint for many of the Scheme's portfolios have fallen during the year. The exceptions to this were the Liability Matching Fund, where the reported increase was the result of a new methodology for calculating the carbon emissions from holding in gilts (UK government bonds) rather than an increase in UK specific carbon emissions; and the Loans Fund where there was an increase in the reported emissions from investee companies.

The Trustee continues to receive training and to seek input from its advisers in its approach towards the management of climate related risks and opportunities, and compliance with the Climate Regulations. During the year, the Trustee's investment adviser, Lane, Clark & Peacock LLP (LCP), reviewed the governance arrangements and the metrics and target previously adopted by the Trustee. The outcome of that review was that the Trustee's approach remained appropriate, and LCP recommended no changes to the climate-related metrics or target for this year's report.

LCP's review suggested some potential future changes to the metrics, which the Trustee intends to consider during the coming year, along with the appropriate level of portfolio alignment to target. More details of this review of the metrics and target, including why the Trustee decided to maintain the same target level for this year's report are included in the section on metrics and targets on page 11.

I note that, whilst the Trustee decided not to update the scenario analysis for this year's report, the results of the previous scenario analysis undertaken showed that, although climate change is a significant risk, the Scheme's investment strategy and funding position is resilient. This is largely because the Scheme's investment strategy is relatively low risk. Approximately half of its assets are invested in UK government bonds and most of the other assets are invested in bonds issued by companies with an investment-grade rating, which therefore have a low risk of default. The Trustee and its investment adviser believe that the conclusions still hold.

The Trustee is required to conduct a full update to the scenario analysis in line with the regulatory obligation for next year's report. This will be combined with any proposed changes to the metrics and target.

I hope you will find the report a useful guide to how the Scheme is managing its responsibilities and obligations in respect of climate change.

Kathleen O'Donovan

Chair of Trustee Board

# Governance

## Contextual information about the Scheme

The Scheme provides defined benefit pensions to approximately 47,000 members. The Scheme has been closed to new accruals since 31 March 2015, and more than two thirds of these members are retired and receiving their pension. The Scheme is therefore considered to be mature.

The Scheme has a relatively low risk investment portfolio. At 31 March 2025, over 90% of the Scheme’s assets were held in UK government bonds, investment grade bonds and cash (including cash funds). The Scheme does not currently invest in equities, and over the last year has reduced the allocation to higher performance funds.

The table below provides an overview of the Scheme’s investment portfolio:

Mandate category	Value (£m)	Allocation (%)	Main type of assets within mandates
Liability Matching Fund and Cash	1,622	54	Government bonds, cash and derivatives
Active Bond Funds	1,201	40	Mainly investment grade bonds. Also includes a small proportion of sub-investment grade bonds
Higher Performance Funds	157	5	Loans and regulatory capital transactions
<b>Total</b>	<b>2,979</b>	<b>100</b>	

*The numbers in this table may not add up exactly because of rounding differences*

# Governance

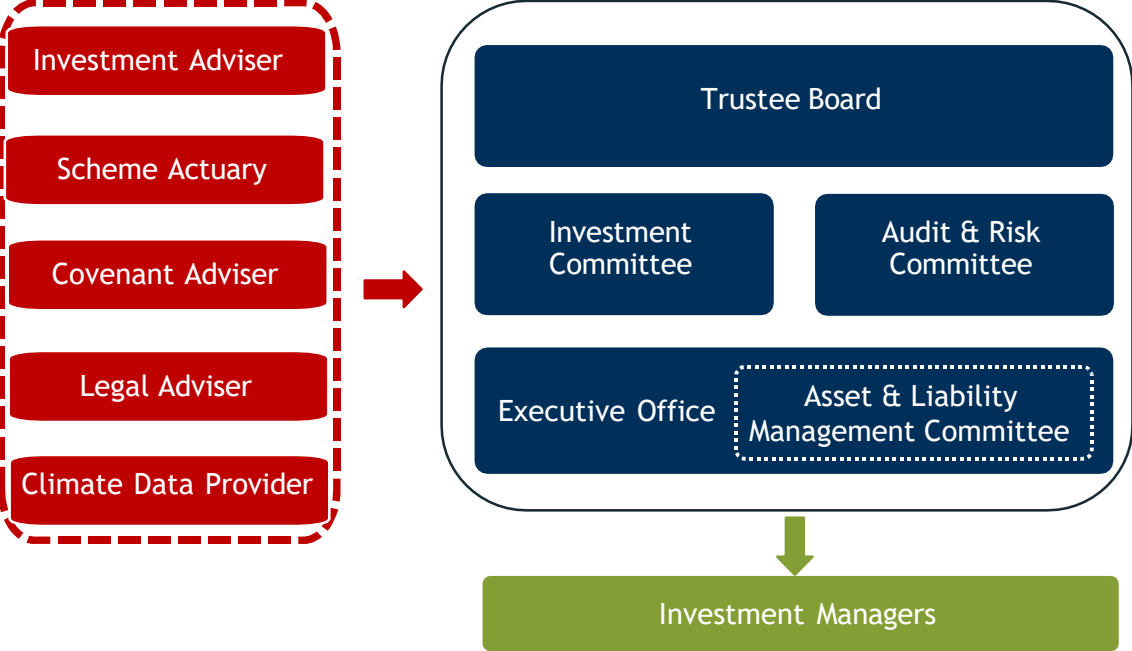
Under the Climate Regulations, trustees of pension schemes must establish and maintain oversight of the climate related risks and opportunities (CRROs) which are relevant to their scheme.

The Trustee Board has overall responsibility for the proper management of CRROs. As part of the process for assessing the appropriate governance structure for CRROs, the Trustee Board has articulated beliefs related to climate change which are reproduced below. The Trustee Board believes that this is helpful in documenting consensus views that have been reached, so that they can be used to inform future decision making and monitoring, where that has been delegated. As in many areas set out in this report the beliefs will develop over time.

Statement of Belief	Implications for the Trustee
<ul style="list-style-type: none"> <li>• The scientific consensus supports the finding that limiting global warming to 1.5°C, if possible, would require:               <ul style="list-style-type: none"> <li>○ rapid and far-reaching transitions in land, energy, industrial buildings, transport and cities</li> <li>○ emissions of carbon dioxide to fall by around 45% from 2010 levels by 2030 and to reach net-zero by 2050</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Significant and immediate actions are required to prevent global temperatures to rise.</li> <li>• The Trustee is seeking to align its investment strategy with achieving the goals of the Paris Agreement to the extent that it is not in contradiction with the financial interests of members to so do.</li> </ul>
<ul style="list-style-type: none"> <li>• Climate change may impact the performance of the Scheme’s investments, due to both physical and transition risks. The timing and extent of the impact is hard to predict.</li> <li>• Climate-related factors will likely create investment opportunities that the Trustee should consider taking advantage of as appropriate within its wider investment objectives.</li> </ul>	<ul style="list-style-type: none"> <li>• The Trustee considers climate-related risks and opportunities when setting the Scheme’s investment strategy, including the effect that climate change may have on individual asset classes or investment mandates.</li> <li>• Climate risks and opportunities should be considered for all the Scheme’s investments, irrespective of the maturity or expected holding period.</li> </ul>
<ul style="list-style-type: none"> <li>• Climate-related risks and opportunities need to be considered alongside and balanced against other relevant investment risks and considerations when evaluating investments.</li> </ul>	<ul style="list-style-type: none"> <li>• The Trustee acknowledges that it may not always be able to minimise climate-related risks if doing so would be to the detriment of wider strategic objectives and/or its fiduciary responsibilities.</li> </ul>
<ul style="list-style-type: none"> <li>• Measuring climate risk is a complex area. The availability and quality of data, and best practices, will continue to evolve.</li> </ul>	<ul style="list-style-type: none"> <li>• The Trustee, supported by its investment adviser and data provider, will monitor relevant developments.</li> <li>• The Trustee will be mindful of setting goals which may lead to unintended consequences whether due to the availability or quality of data or the simplicity of the metric considered.</li> </ul>
<ul style="list-style-type: none"> <li>• Engagement (including the exercise of voting rights) is an effective means of helping to manage the Scheme’s climate-related risks.</li> </ul>	<ul style="list-style-type: none"> <li>• Engagement with underlying companies (as well as other relevant organisations) is carried out primarily by investment managers on behalf of the Trustee.</li> <li>• The Trustee may disinvest from businesses or asset managers who are inadequately managing their climate-related risks if attempts to engage with these parties to address this are not successful.</li> <li>• While the Trustee believes that the exercise of voting rights is an effective risk management tool, the Trustee has no or minimal investments which involve voting rights (e.g. equities).</li> </ul>

# Governance

The diagram and table below provide an overview of the governance structure in place for the management of CRROs. The Trustee Board and its committees are supported by professional advisers, and by the Executive Office, a small group of professionals employed by the Trustee to serve the Board and to assist in the oversight of and communication with the Trustee’s advisers and service providers.



The Trustee has delegated some of its responsibilities set out in the table below. Key decisions on matters such the selection of metrics and targets, remain with the Trustee Board. The Trustee Board oversees the work of its committees and receives regular reports from them on their climate-related work. The committees’ terms of reference have been amended accordingly.

**Responsibilities**

<p><b>Trustee Board</b></p>	<p>Retains overall responsibility for the management of CRROs, and delegates some of its duties to its committees. Oversees the activity of those committees through regular reporting which include climate-related work. The climate-related activity of investment managers are reported on a quarterly basis, and the metrics and the comparison to any target are reported on a biannual basis.</p> <p>Oversees the integration of climate-related considerations in the covenant assessment and longevity assumptions.</p> <p>Approves the metrics and target(s) adopted by the Trustee.</p>
<p><b>Investment Committee (IC)</b></p>	<p>Oversees the detailed analysis of the impact of climate change on investment risk and returns.</p> <p>Sets approach for achieving the target(s), including how they feed into the implementation of the investment strategy and their potential incorporation into investment management mandates.</p> <p>Monitors and queries the activity of investment managers with respect to incorporating climate-related considerations in their processes and engaging with investee companies. This is also done by the Asset Liability Management Committee (ALCo).</p> <p>Monitors the evolution of metrics and progress toward achieving the targets.</p> <p>Reviews appropriateness of metrics and targets and makes recommendations of changes to the Trustee Board.</p>
<p><b>Audit &amp; Risk Committee</b></p>	<p>Ensures that climate-related considerations are properly reflected in the Scheme’s Risk Management Framework. This includes the maintenance of the risk register.</p>

# Governance

## The Role of Advisers

The Trustee continues to seek input from its advisers in the implementation of its approach towards the management of CRROs and compliance with the Climate Regulations. Over the past year, this has included our investment adviser reviewing the framework put in place by the Trustee for managing CRROs, advising on appropriate metrics and targets, and engaging with and reviewing investment managers.

The statement of objectives provided to the Trustee's investment adviser includes a section on how they will support the Trustee with regard to CRROs. In 2025, the Trustee's investment adviser, LCP, conducted a review of the climate-related governance arrangements and whether the metrics and targets remained appropriate. The Trustee's advisers (supplemented by the Scheme's investment managers) also continue to provide the Trustee with training on climate-related risks and opportunities and how these may interact with other responsible investment considerations such as nature-related risks.

The work of the Trustee's service providers and their interaction with the Trustee Board and the various committees are generally coordinated by the Executive Office. This includes the climate-related work. The Executive Office prepares papers for the Board that set out decisions that need to be made by the Trustee, articulates options and makes recommendations for the Board or committees to consider and debate. The Executive Office also performs the annual reviews of the Trustee's advisers, which in the case of investment, covenant and actuarial advisers cover their climate-related work. The outcome of those reviews is then reported to the Trustee Board.

## The Role of Investment Managers

The Trustee believes that, given the nature of the Scheme's investments, factors such as climate change are primarily relevant to the allocation decisions between sectors and companies. The investment managers decide in which countries, sectors and companies to invest in, whilst adhering to investment guidelines. The Trustee expects its investment managers, when exercising discretion in the mandates that they manage for the Scheme, to integrate all relevant and material financial factors, including climate change, into the investment decision making process. The investment guidelines of the Active Bond Funds were amended in the summer of 2023 to incorporate the target set by the Trustee, as described in the 'Metrics and Targets' section of this report and progress against this target is reported on by the managers biannually. The integration of climate change considerations forms part of the selection of new investment managers and the annual review of existing managers. It is an important element of the broader assessment of the responsible investment credentials of those managers.

## Trustee Engagement Priorities

Climate change is also one of the Trustee's engagement priorities, which have been communicated to the investment managers to inform their engagement and stewardship activities on behalf of the Scheme. These engagement priorities are:

- Climate change with a focus on the alignment with the Paris Agreement. As part of that, the Trustee would expect managers to encourage issuers to participate in the Science Based Target Initiative (SBTi)<sup>1</sup>.
- Just Transition with focus on the environmental and social impacts of climate-change related transition.
- Biodiversity and Natural Capital, with a focus on water use, deforestation, and the promotion of a circular economy.
- Human Rights and Human Capital Management, with a focus on compliance with labour rights, and policies on equality, diversity and inclusion.
- Sustainable Innovation & Technology, with a focus on cybersecurity, and the risks and opportunities from digital disruption.

The Trustee considers the investment managers' engagement and stewardship activities as part of the regular reviews of the mandates that they manage for the Scheme. Examples of the investment managers' engagement on climate change and Just Transition with investee companies are provided in the Appendix.

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<sup>1</sup> More details on the SBTi can be found on the website: <https://sciencebasedtargets.org>

# Strategy

## Time horizons used to consider climate related risks and opportunities for the Scheme

Under the Climate Regulations, the Trustee is required to define short-term, medium-term and long-term horizons over which CRROs will be considered.

The time horizons were adopted by the Trustee at the time the last asset Scenario analysis was undertaken in 2024 and the rationale for these timescales at that point are set out below.

<i>Horizon</i>	<i>Adopted</i>	<i>Rationale</i>
Short-Term	0 to 5 years	<ul style="list-style-type: none"><li>• The horizon during which benefit payments are fully funded by expected distributions from existing investments and consistent with investment horizon of most investment managers (with the exception of the Liability Matching Fund).</li><li>• A few re-allocations by the Investment Committee may take place in this period to manage the risk/return profile of the assets.</li></ul>
Medium-Term	5 - 10 years	<ul style="list-style-type: none"><li>• Included the expected horizon to achieve the “Long-Term Objective” (LTO), which at the time the last full scenario analysis was conducted was to be fully funded with liabilities measured with a discount rate of gilt + 50bps p.a.<sup>1</sup></li></ul>
Long-term	10 years and beyond	<ul style="list-style-type: none"><li>• Set with regard to the average duration of liabilities, which can be thought of as the weighted average of the timing of benefit payments.</li></ul>

<sup>1</sup> The Long-Term Objective target was amended as part of the 2024 valuation discussions to gilt + 0 bps p.a. The Scheme’s 2024/2025 Annual Report, which is available on the Scheme’s website, provides more details on the 2024 valuation outcome.

## Types of risks arising from climate change

The risks arising from climate change are often divided into Physical and Transition Risk categories.

### Physical Risk

This relates to the impact on economic activity and demographics resulting from the physical impacts of climate change, such as damage and disruption from extreme weather events. This is a current risk and not just a future risk with extreme weather events occurring at a far greater frequency than previously experienced.

Physical risks may have financial implications for organisations, such as direct damage to assets and indirect impacts from supply chain disruption.

Organisations’ financial performance may also be affected by changes in water availability, sourcing, and quality; food security; and extreme temperature changes. These may affect organisations’ premises, operations, supply chains, transport needs, employee safety, and life expectancy.

The adverse effects can be either acute which are likely to be severe and often location-specific (for example droughts, extreme rainfall, heatwaves, wildfires and hurricanes) or chronic (such as sea level rise, changes in average temperatures and precipitation) which are more likely to develop over decades.

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## *Transition Risk*

Transitioning to a lower carbon economy may entail extensive policy, legal, technology, and market changes to address mitigation and adaptation requirements related to climate change.

Increased regulation could include the abrupt imposition of carbon taxes or emission performance limits. This could result in 'stranded assets'. An example is the risk of fossil fuel assets, which may no longer be able to earn an economic return before the end of their economic life. Changes in individual and company behaviour may also result in significant losses in revenues, for instance for carbon-intensive businesses. Growth opportunities could arise for providers of mitigation technologies that increase energy efficiency or capture carbon dioxide emissions. Growth opportunities may also arise related to adaptation of infrastructure to make it more resilient, and the introduction of new products and services related to changed environmental conditions.

## ***Risks and opportunities arising from climate change***

The Trustee has a comprehensive risk framework which sets out the governance and risk management processes in place for the Scheme. This includes the maintenance of a risk register. On the risk register, the Trustee has identified climate change as a source of risk that could have a material impact on the Scheme. Climate change could see the investments held by the Scheme fall in value significantly, impact the longevity of Scheme members resulting in material unexpected changes to Scheme liabilities, and cause the sponsor's business to suffer a material adverse effect on its ability to generate cash and support the Scheme.

Most assets held within the Scheme, with the exception of UK government bonds held within the Liability Matching Fund, are invested in debt with a time to maturity falling within the short-term horizon as described above, with most of the rest of those assets falling in the medium-term horizon. This is largely the result of the Scheme being mature and the profile of its liabilities.

The Trustee has identified the adverse transition risk impact on the Scheme's corporate bond holdings as the most significant CRROs in the short term, because this would have a negative impact on the funding level over next five years as bond markets adjust to the shock of transitioning to a decarbonised world. The CRROs relating to transition risk include government policies aiming to limit or deter the use of fossil fuels, technological developments relating to renewable energy and the impact of shifts in consumer demand. Over the medium term, physical risks are still expected to be relatively small and the impact of further adverse transition risk on the Scheme's assets remains the most significant factor. Over the long term the expected impact on financial markets caused by the physical impacts of climate change presents the most significant risk.

The Scheme's investment managers are expected to consider climate change as a source of risk as well as opportunities for the companies that they invest in. This may mean funding companies which are well positioned to provide adaptation or mitigation products or funding the transition of high-emitting companies. In the case of the Scheme's Active Bond Funds, this expectation is expressed by setting a target to the managers that by a certain date a minimum proportion of their portfolio should be invested in companies aligned or aligning with the Paris Agreement, as explained in the "Metrics and Targets" section.

The assessment of CRROs, viewed in light of the Trustee's scenario analysis (see below) and as part of the overall risk assessment of the Scheme, has influenced the Trustee's thinking on investment strategy. An illustration of this is the Trustee previously setting a target for the Active Bond Funds concerning the proportion of issuers aligned or aligning with the Paris Agreement. Given the maturity of the Scheme, the resilience of the Scheme's funding position as reflected in the Trustee's scenario analysis, and the resilience of the Scheme's covenant, the Trustee has not found that the assessment of CRROs has had a material impact on its funding strategy.

## ***Scenario Analysis and Impact on Funding & Investment Strategy.***

The Trustee is required to perform a scenario analysis at least every three years and, in any case, when it considers it appropriate to do so. Its original scenario analysis was set out in its 2023 report, and in the 2024 report the Trustee's investment adviser updated the scenario analysis by including an assessment of the impact of CRROs on the Scheme's funding and investment strategy.

Overall, the results of the scenario analysis undertaken showed that, whilst climate change is a significant risk, the Scheme's investment strategy and funding position is resilient. The analysis suggested that the ability of the Scheme to pay members benefits, and its strategy to do so, are not likely to be significantly affected by climate change risks. For completeness, more details of the scenario analysis undertaken in 2024 are included in the appendix.

For this year's report, the Trustee considered whether to fully rerun the scenario analysis on the potential impact on the funding and investment strategy, member longevity and on the strength of the employer covenant.

Since the 2024 funding and investment strategy scenario analysis was updated there had not been a material increase in data availability or a significant change to the funding position or investment strategy. Updating the scenario analysis would not

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likely result in any significant change in results from the analysis in the 2024 report. The Trustee therefore decided not to update this analysis this year.

The scenario analysis on the potential impact on the strength of the employer covenant was originally completed for the 2023 report. The analysis had then shown a relatively small impact on the Scheme funding level and covenant support. It suggested that, due to its business focus on energy efficiency, electrification, and digitalisation, Schneider Electric would likely be a beneficiary of the trend to decarbonise the economy and that adverse financial consequences from climate change were likely to be limited. On the basis that there has not been material change in either the funding position or investment strategy, the assessment of a material change to the employer's exposure to climate risk, or the strength of the employer covenant since the last analysis, the trustee decided not to update the analysis this year.

Regarding the impact of climate change on member longevity, the Trustee and the Scheme Actuary - XPS - assessed that it would be worthwhile to provide a qualitative analysis for this year's report given some changes to the methodology used since the analysis was originally updated in 2023. The analysis has been updated to include four of the scenarios under the Network for Greening the Financing System ('NGFS') framework, which provides new insights into the potential macroeconomic consequences of different climate policies from both transition and physical risks. The conclusions of the analysis were similar to the original analysis reported in 2023, which is that the negative impact of climate change on life expectancy (which would reduce Scheme liabilities), would be greater in the more extreme climate scenarios. This effect may partially or fully offset by the reduced investment performance from the assets in such scenarios.

The Trustee is required to update the scenario analysis next year to align with the regulatory requirement, covering the funding and investment strategy, impact on member longevity and strength of the employer covenant. The results of the analysis will be presented in the 2026 report.

# Risk Management

The responsibilities for identifying, assessing and managing climate-related risks are shared between the Trustee Board, its committees, the Executive Office and the Trustee’s service providers, as described in the ‘Governance’ section. The Trustee retains ultimate responsibility and provides oversight of how CRR0s are managed. Those activities also occur at different times and frequencies.

The key processes associated with climate-related risks are documented in the Scheme’s overall risk framework and the risk register which are maintained by the Audit & Risk Committee and approved by the Trustee Board. Those documents incorporate climate-related risks following the first comprehensive review of the Trustee’s approach to CRR0s as previously described. They were last reviewed in December 2024.

The table below provides details of when and by whom certain risks will be addressed as part of routine activity. The review of risks in the relevant area might indicate the emergence of new risks or material changes in the severity of existing risks that might require a more detailed assessment. In addition to this, the Trustee’s initial assessment of risks came through the scenario analysis as previously described. The Trustee undertakes, at least on a triennial basis, new scenario analysis, which will aim at incorporating all material climate-related risk areas.

Area of potential impact	Mitigating Action	Oversight	Supported by	Frequency
Covenant	Consider climate-related risks as part of ongoing review of the employer covenant, and more extensively in triennial valuation discussions. Engage with sponsor as needed	Trustee Board	Covenant Adviser	Annual (with deeper dive on a triennial basis)
Liabilities (longevity)	Oversee the integration of climate-related considerations in longevity assumptions	Trustee Board	Scheme Actuary	At least as part of triennial valuation
Investment and liabilities (interest rates and inflation)	Choice of metrics and targets	Investment Committee with changes approved by Trustee Board	Investment Adviser	Annual
	Evolution of metrics and progress towards achieving targets	Investment Committee and Trustee Board	Investment Adviser	Annual
	Consider when reviewing potential changes to asset and risk allocations	Investment Committee	Investment Adviser	Ongoing
	Engagement with managers to assess how climate-related risks are reflected in their investment processes	Investment Committee	Investment Adviser	Prior to appointment, and at least as part of annual reviews
	Where possible, incorporate climate-related targets into the mandate guidelines			
Selection of investible companies	Investment Managers			Ongoing, with annual reviews by Investment Committee & Asset-Liability Management Committee
Voting and engagement with investee companies				

# Metrics and Targets

The Trustee has selected metrics in order to assess CRROs. It has also adopted a target in respect of one of those metrics.

The information required to calculate some of those metrics is not always available in the quantity or quality desired. In addition, the methodologies are not always fully consistent between asset classes and are still developing. This creates limitations on the calculations of those metrics, their accuracy, and the Trustee's ability to rely on them. The Trustee will continue to work with its investment managers and climate data provider in order to enhance the coverage and quality of data.

As with last year's report, data on scope 1, 2 and 3 emissions have been included, where data is available. 'Scope 1' emissions are created by an investee company's activities. They occur from sources that are directly owned or controlled by the company, for example emissions from combustion in owned or controlled furnaces of company facilities or company vehicles. 'Scope 2' emissions arise from the generation of purchased energy consumed by the company, for instance for heating and cooling. 'Scope 3' emissions result from the activities of the company from sources not owned or controlled by the company, such as suppliers or customers. Measuring scope 3 data is difficult given the breadth of stages - both 'upstream' and 'downstream' - of a company's operations. Scope 3 emissions are typically much higher than scope 1 and 2 emissions and can lead to double counting when aggregated at a portfolio level. For those reasons, the Trustee has reported scope 3 emissions separately.

The data were provided as at 31 March 2025.

## Review of metrics and target

The Trustee reviewed the appropriateness of the metrics and target this year with the help of its investment adviser, LCP. Based on LCP's advice, the Trustee concluded that the metrics and target (both the definition of the target and the level of portfolio alignment targeted) remained appropriate for this year and that it intends to consider making some changes to the metrics and target for the 2026 report.

This review, conducted in February 2025 included a consideration of whether relying solely on SBTi validation as a measure of alignment remained sufficient and LCP recommended that the Trustee consider amending the definition of portfolio alignment used within metrics, as described below. It also included a review of the current target noting that the latest data available at the time had indicated a significant improvement versus the level reported in the Scheme's 2024 climate report. The improved level of alignment within the portfolio provided a case for strengthening the target level - although based on the latest available data at the time of the review the 2028 target level had not yet been reached.

LCP's recommendation, bearing in mind the comments on the definition of portfolio alignment used in the relevant metric, was to make no change to the target. LCP's rationale for this recommendation, which the Trustee accepted was that:

- High-profile de-accreditations from SBTi may provide a headwind against the recent trend of improved SBTi verified targets in the corporate bond market. This may make the target (as currently defined) more challenging to hit over the coming years.
- The intention to review the definition of the portfolio alignment metrics made it more appropriate to revise the target based on the newly defined metric (should any changes be made).

The Trustee is pleased to note the further improvement in the portfolio alignment metric since this review, such that as at 31 March 2025 the portfolio alignment within the Active Bond Fund portfolios is ahead of the target set for March 2028 (see page 15).

The Trustee and LCP intend to do further work to assess the impact of making any changes on the metrics, and work with the relevant managers to test the data for robustness. If it is deemed necessary to update the metrics, then the Trustee may do so for the 2026 report. The Trustee also intends to review the target ahead of next year's report to ensure that it represents the level of ambition required on a forward-looking basis, taking into account any possible developments in the metrics.

# Metrics and Targets

## Absolute Emissions

The Absolute Emissions metric provides the total greenhouse gas (“GHG”) emissions attributable to the Scheme’s assets. It is expressed in tonnes of carbon dioxide equivalent (“tCO<sub>2</sub>e”). The numbers included in this report reflect Scope 1, 2 & 3 emissions.

The data were provided by the Scheme’s investment managers, using a variety of sources. The methodologies for allocating emissions to the investments within the Liability Matching Fund and the Regulatory Capital Fund differ from the approach used in the other mandates. The numbers cannot therefore easily be compared. The Scheme’s assets held in bank deposits were excluded from the table below.

Since the previous report, the total scope 1 and 2 emissions associated with the Liability Matching Fund have increased. This is due to a new methodology for estimating emissions associated with holding in gilts, which is the main category of assets within the mandate. The new method adopts the approach agreed by the Institutional Investors Group on Climate Change (‘IIGCC’) which is the standard set by the Partnership for Carbon Accounting Financials (‘PCAF’) for financed emissions for sovereign debt, and results in higher emissions linked to the gilts in the Liability Matching Fund than reported in prior reports.

There was a reduction in the emissions from the Active Bond Funds as the portfolio allocation to high-emitting issuers was reduced and some issuers reported lower emissions over the period. Total emissions can be concentrated in a small number of holdings, which means that the total emissions profile can vary significantly when the allocation to those holdings change. Scope 3 emissions are, as expected, considerably higher than scope 1 and 2 emissions.

The total scope 1 and 2 emissions associated with holdings in the Loans Fund remained broadly unchanged, despite the Scheme’s holding in the fund declining by around a half during the year. Scope 3 emissions also increased over the period, mainly due to the addition of new or improved carbon emissions reporting data from loan issuers which were already in the portfolio, rather than higher actual emissions from existing or new holdings. The fund invests in loans with medium to large sized companies who are in the process of improving their carbon emissions reporting, so it is expected to see some fluctuations in the data, especially around scope 3 data.

	Liability Matching Fund <sup>a</sup>	Active Bond Funds <sup>b</sup>	Loans Fund <sup>b</sup>	Regulatory Capital Fund <sup>c</sup>
Value (£m)	£1,581	£1,201	£99	£58
<b>Total emissions - Scope 1 &amp; 2 (tCO<sub>2</sub>e)</b>				
<b>31/03/2025</b>	<b>363,591</b>	<b>32,622</b>	<b>3,616</b>	<b>22</b>
Total emissions - Scope 1 & 2 (tCO <sub>2</sub> e)				
31/03/2024	265,715	48,761	3,637	38
Total emissions - Scope 1 & 2 (tCO <sub>2</sub> e)				
31/03/2023	284,000	60,005	12,783	47
<b>Total emissions - Scope 3 (tCO<sub>2</sub>e)</b>				
<b>31/03/2025</b>	<b>240,973</b>	<b>299,602</b>	<b>83,016</b>	<b>7,075</b>
Total emissions - Scope 3 (tCO <sub>2</sub> e)				
31/03/2024	Not available <sup>d</sup>	383,795	62,466	10,517

<sup>a</sup> Calculated as Sovereign Emissions(tCO<sub>2</sub>e) for the UK x (Face value of Gilts in the portfolio in USD / PPP-adjusted UK GDP in USD). Emissions associated with cash, swaps and Network Rail Bonds within the LMF have not been included. For details on the PCAF standard see <https://www.iigcc.org/resources/sovereign-bonds-and-country-pathways-discussion-paper>

<sup>b</sup> The emissions associated with the Scheme’s investments are calculated by applying an ‘attribution’ factor, defined as the ratio of the value of that investment and the enterprise value, including cash of the company.

<sup>c</sup> The numbers reported correspond to the emissions of the originating banks rather than those of the companies that the banks have lent to and which are the object of the particular transaction between the bank and the funds. The ‘attribution’ factor is also based on the notional of the loans that the deal provides protection against, pro-rated for the size of the Scheme’s investment, and the bank’s enterprise value, including cash.

<sup>d</sup> Scope 3 emissions data for the Liability Matching Fund was not available due to a lack of data on sovereign issuers. The methodology for calculating scope 3 emissions for sovereign issuers has since been updated and data provided for the 2025 report.

# Metrics and Targets

## Emissions Intensity

The Emissions Intensity metric provides the carbon footprint associated with the Scheme's assets. It is measured as the total GHG emissions per £m invested by the Scheme ("tCO<sub>2</sub>e/£m"). It is the 'intensity' metric that the Department for Work and Pensions have recommended in their guidance on the governance and reporting of climate risk. This metric is designed to enable comparison between different mandates, irrespective of their size, and to benchmarks, providing the methodologies for allocation emissions are comparable. The metric reported in this year's report reflects Scope 1, 2 emission and Scope 3 emissions separately. The data were provided by the Scheme's investment managers, using a variety of sources. The methodologies for allocating emissions to the investments within the Liability Matching Fund and the Regulatory Capital Funds differ from the approach used in the other mandates. The numbers for these mandates cannot therefore be easily compared to the Active Bond Funds or the Loans Fund.

Since the previous report, scope 1 and 2 emissions intensity has decreased across most mandates. This was largely due to changing portfolio composition within the mandates and the reduction in emissions from some issuers. Scope 3 emissions intensity is shown and is considerably higher than for scope 1 and 2 data, which is consistent with scope 3 emissions being much higher than scope 1 and 2 emissions in general.

As noted in the absolute emissions section, the reported carbon footprint data for the Loans Fund in scope 1 & 2 and scope 3 have increased markedly over the year, mainly due to the addition of new or improved carbon emissions reporting data from loan issuers which were already in the portfolio, rather than higher actual emissions from existing or new holdings.

	Liability Matching Fund <sup>a</sup>	Active Bond Funds <sup>b</sup>	Loans Fund <sup>b</sup>	Regulatory Capital Fund <sup>b,c</sup>
<b>Carbon Footprint - Scope 1 &amp; 2 (tCO<sub>2</sub>e/£m)</b>				
31/03/2025	156	43	43	0.5
Carbon Footprint - Scope 1 & 2 (tCO <sub>2</sub> e/£m)				
31/03/2024	158	62	23	0.5
Carbon Footprint - Scope 1 & 2 (tCO <sub>2</sub> e/£m)				
31/03/2023	166	85	74	0.6
<b>Carbon Footprint - Scope 3 (tCO<sub>2</sub>e/£m)</b>				
31/03/2025	103	660	1,054	151
Carbon Footprint - Scope 3 (tCO <sub>2</sub> e/£m)				
31/03/2024	Not available <sup>d</sup>	496	565	150

<sup>a</sup> Calculated as tCO<sub>2</sub>e per £1m of PPP-adjusted UK GDP. This is based on MSCI data. More details are provided on the methodology in the section 'Absolute Emissions'.

<sup>b</sup> Calculated as tCO<sub>2</sub>e attributed to the investments divided by the total value of the investments to which they correspond.

<sup>c</sup> The numbers reported correspond to the emissions of the originating banks rather than those of the companies that the banks have lent to and which are the object of the particular transaction between the bank and the funds. This is largely why the intensity numbers are much lower.

<sup>d</sup> Scope 3 emissions data for the Liability Matching Fund was not available due to a lack of data on sovereign issuers. The methodology for calculating scope 3 emissions for sovereign issuers has since been updated and data provided for the 2025 report.

# Metrics and Targets

## Data Coverage and Quality

The purpose of these metrics is to provide some information on the proportion of assets for which absolute emissions were available and how those data were obtained. The metric ‘Coverage’ corresponds to the proportion of portfolio for which emissions data are provided by companies or third parties, including estimated data based on companies’ characteristics. The metric ‘Quality’ corresponds to the proportion of assets for which emissions data was included in this report which were reported by companies, rather than being estimates from third parties based on their characteristics.

Cash, derivatives and government bonds have been excluded from the calculations. The information for the Liability Matching Fund is not included in the table below. Its main assets are bonds issued by the UK government. The approach for providing the emissions associated with this mandate is described in the previous sections.

Since the last report, data coverage and quality have remained broadly unchanged from its previous high level across mandates. As more companies report emissions data and third-party providers capture more data, the overall quality of the data improves. This can mean that reported emissions can go either up or down, but the data represents a more accurate view of true emissions, and some variability is expected over annual time periods.

The reported Coverage and Quality metrics in the Regulatory Capital Funds remains high because they relate only to the originating banks. The reported Coverage for Active Bond Funds is comparably lower. This is largely because little to no data is currently available for asset-backed securities, where the underlying assets are pools of debt holdings.

		Active Bond Funds	Loans Fund	Regulatory Capital Fund <sup>a</sup>
Coverage	31/03/2025	76%	91%	83%
(Scope 1 & 2)	31/03/2024	77%	91%	86%
	31/03/2023	63%	98%	85%
Quality	31/03/2025	88%	97%	100%
(Scope 1 & 2)	31/03/2024	84%	93%	100%
	31/03/2023	88%	57%	100%
Coverage (Scope 3)	31/03/2025	76%	85%	80%
	31/03/2024	76%	74%	86%
Quality (Scope3)	31/03/2025	Not available <sup>b</sup>	93%	100%
	31/03/2024	Not available <sup>b</sup>	88%	100%

<sup>a</sup> The number reported corresponds to the emissions of the originating banks rather than those of the companies that the banks have lent to and which are the object of the particular transaction between the bank and the funds

<sup>b</sup> Data has not been provided by the manager for this report. Managers are in the process of sourcing reliable data sources to collect scope 3 emissions data and metrics and this should be reflected in future reports.

# Metrics and Targets

## Portfolio Alignment

The purpose of the Portfolio Alignment metrics is to assess the alignment of investee companies with the Paris Agreement's goal of limiting global temperature rises. Assessing alignment is a subjective matter and various methods can be used. It also requires information from companies which they may be unwilling or unable to provide. The Trustee has decided to use the data from the SBTi, due its relative simplicity, the higher coverage than some of the alternatives and because the data is publicly available. This measure also enables the Trustee to identify the companies' level of ambition regarding setting climate-related objectives.

This metric has been provided for the Active Bond Funds, Loans Fund and the Regulatory Capital Fund. The SBTi applies to corporates and does not include governments which is why the Liability Matching Fund is not included in the table below. The UK has ratified the Paris Agreement, and the 'net-zero' target by 2050 is currently set in statute.

The table below provides the proportion of investments, in market value terms, in companies broken down between those that, according to SBTi, have a (1) 1.5°C aligned strategy, (2) a well below 2°C aligned strategy, (3) 2°C aligned strategy or (4) have no alignment strategy validated by SBTi. Companies with a target validated by SBTi that is consistent with a 1.5°C, or well below 2°C or a 2°C scenario are deemed to be "aligned or aligning" with the goals of the Paris Agreement for the purpose of the report.

Following a similar pattern to last year's report, across all mandates there was an improvement during the year in the total proportion of investments being 'aligned' or 'aligning' according to SBTi. The Active Bond Funds, in particular, recorded a 5 percentage point increase to 36 percent of investee companies being aligned or aligning. This increase is mainly due to more companies receiving validation for a science-based target, and some managers seeking bonds issued by companies that are aligned/aligning, if the risk and return characteristics are at least as good as for bonds issued by companies that are not aligned.

Alignment according to SBTi	Active Bond Funds	Loans Fund	Regulatory Capital Fund
1.5 °C	30%	15%	0%
Well below 2.0 °C	4%	0%	17%
2.0 °C	2%	0%	0%
No strategy validated	64%	85%	83%
<b>Total <sup>a</sup></b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Total Aligned or Aligning (excluding unverified)</b>	<b>36%</b>	<b>15%</b>	<b>17%</b>
<b>31/03/2025</b>			
Total Aligned or Aligning (excluding unverified)	31%	8%	15%
31/03/2024			
Total Aligned or Aligning (excluding unverified)	22%	5%	10%
31/03/2023			

<sup>a</sup> Cash, government debt and derivatives have been excluded.

# Metrics and Targets

In addition to this metric, the Trustee is monitoring the proportion of financed carbon emissions of investments in companies in High Impact Sectors and Companies that are “aligned or aligning” with the goals of the Paris Agreement or subject to a collective engagement. The purpose of this metric is to ensure the Trustee, and its asset managers, are focused on companies with the highest carbon footprint. The metric was inspired by the Net Zero Investment Framework proposed by the Institutional Investors Group on Climate Change. The metric is currently only considered for the Active Bond Funds as those are segregated mandates, where the Trustee can set investment guidelines in agreement with the investment managers.

Since the last report, there has been improvement in the metrics relating to High Impact Sectors and Companies across the Active Bond Funds. The proportion invested in High Impact Sectors and Companies has continued to decline from 23 percent previously to 20 percent this year. As a consequence, the proportion of financed carbon emissions from High Impact Sectors and Companies also declined.

Within the group of High Impact Sectors and Companies, the proportion that have 1.5°C alignment or are subject to collective engagement also increased. This is a function of a large increase in companies that have 1.5°C alignment at one of the asset managers, leading to a total of 93% of financed carbon emissions in High Impact Sectors and Companies being aligned/aligning or subject to collective engagement.

Active Bonds Funds (Scope 1 & 2 Emissions)	31/03/2025	31/03/2024	31/03/2023
Proportion invested in High Impact Sectors and Companies <sup>a</sup>	20%	23%	28%
Proportion of financed carbon emissions accounted for by High Impact Sectors and Companies	58%	62%	80%
Proportion of financed carbon emissions in ‘aligned/aligning’ companies or subject to a collective engagement <sup>b</sup>	93%	87%	56%

<sup>a</sup> High Impact Sectors and Companies are those having a high emissions intensity, as identified by the Transition Pathway Initiative, plus the real estate sector. High Impact Companies are those on the Climate Action 100+ focus list.

<sup>b</sup>. “Collective engagement” refers to a bond issuer that is subject to ongoing engagement from the Manager or a recognised industry group, such as Climate Action 100+ that seeks to achieve the adoption of the goals of the Paris Agreement.

# Metrics and Targets

## Target

The Trustee has an ambition to align the investments of the Scheme with the goals of the Paris Agreement to the extent that it is not in contradiction with the financial interests of members. The Trustee expects as a result that, by 2050, the Scheme will be invested in a portfolio of assets with net-zero emissions.

As part of that ambition, the Trustee had set the target that, by 31 March 2028, at least 35% of bonds held within the Active Bond Funds should be issued by companies that are Aligned or Aligning with the Paris Agreement. The investment managers have reported that the proportion invested in Aligned or Aligning companies increased from 31% as at 31 March 2024 to 36% as at 31 March 2025. This is above the target set by the Trustee for 31 March 2028.

This increase is mainly due to more companies receiving validation for a science-based target, and some managers seeking bonds issued by companies that are aligned/aligning, if the risk and return characteristics are at least as good as for bonds issued by companies that are not aligned.

The target is restricted to the Active Bond Funds because they are segregated mandates, where the Trustee controls the guidelines. The other mandates (except the LMF which is primarily invested in gilts & cash) involve pooled funds. The Active Bond Funds represent 88% of the Scheme assets, excluding the LMF and cash funds.

This alignment target has been incorporated in the guidelines for those mandates. The managers are required to raise with the Trustee if this objective materially hinders their ability to achieve the financial return and risk objectives of their mandate. The Trustee is mindful of the fact that relying solely on the SBTi may be overly restrictive as companies might be committed to a 'net-zero' strategy, whilst not submitting their target for validation by the SBTi.

# Appendix

## Examples of investment managers' engagement with investee companies on climate change and Just Transition

### **Amundi Active Bond Fund mandate: Just Transition engagement with a British banking institution**

Amundi continued its 2023 engagement with a British bank to explore how it was incorporating Just Transition into its broader net zero strategy. As a key player in the financial sector, the bank has a critical role in ensuring that the shift to a low-carbon economy accounts for social impacts. Amundi believes that without addressing these social dimensions, particularly in how climate-related changes affect workers and communities, the transition risks are unjust and unsustainable.

The engagement aimed to encourage the bank to further integrate Just transition across its climate transition plan, demonstrate its application across products, sectors, and regions, and disclose what local resources are available to support Just Transition efforts in the UK. Amundi also sought to promote the alignment of Just Transition initiatives with the bank's decarbonisation targets and financial activities.

The bank showed encouraging progress, highlighting how it had begun embedding the Just Transition into its environmental strategy, particularly through considering regional requirements across the UK and in setting decarbonisation targets for residential mortgages. However, Amundi identified gaps in transparency and disclosures. In 2024, Amundi provided feedback encouraging more detailed reporting, especially on regional implementation efforts. The engagement will continue in 2025 to support the bank in strengthening and expanding its Just Transition strategy.

### **Amundi Active Bond Fund mandate: Climate Change engagement with an Italian banking group**

Amundi started engaging with an Italian bank in 2023 due to concerns about its thermal coal policy, which remained misaligned with the Paris Agreement's 1.5°C goal. The bank had not committed to phasing out thermal coal power generation and lacked full transparency, especially in excluding coal developers. Despite its involvement in sustainable finance activities like green and social bonds, Amundi sought a stronger commitment to reduce brown financing and align with best practices in the sector.

Amundi aimed to bring the bank's thermal coal policy in line with sector-leading standards. At the 2024 AGM, Amundi publicly asked the bank when it would commit to phasing out thermal coal power (by 2030 for OECD/EU and 2040 globally) and expand its policy to cover investment and underwriting activities. Amundi also recommended setting decarbonisation targets for capital markets activities, developing a client transition framework, and increasing transparency around these measures.

In 2024, the bank made progress by updating its policy to exclude counterparties that derived over 15% of revenues from unconventional resources. It also submitted near-term SBTi targets covering Scope 3 emissions. Some progress was also noted on its client transition framework and potential targets for facilitated emissions, with reference to Net Zero Banking Alliance guidelines. However, it did not commit to phasing out thermal coal power nor extend the policy to investment and underwriting. Amundi will continue engaging on these issues to strengthen the bank's climate commitments.

### **M&G Active Bond Fund mandate: Climate Change and Sustainable Technology and Innovation engagement with a multinational utilities company**

M&G met with the CFO and investor relations team of a multinational utilities company to discuss the energy transition and its associated challenges from both a corporate and national perspective. As a company operating across Europe, Asia-Pacific and the US, with significant renewable and gas capacity, it plays a key role in the broader decarbonisation effort. M&G aimed to understand how the company perceives current barriers and opportunities within Germany's energy transition pathway. M&G was particularly interested in how the company is navigating issues related to grid infrastructure, the role of flexible gas generation and broader policy challenges.

The company highlighted that the energy transition is hindered by rising grid costs and an overreliance on long-term buildout assumptions that don't account for interim system optimisation, particularly in Europe. The company argued that gas is the most efficient flexible generation option in the near term and views nuclear as economically unviable. It stressed the need for a pragmatic approach from policymakers, especially in light of events like a period of very low renewable output. The company also noted the lack of viable long-term storage solutions and the need for significant investment to support short-duration battery systems.

M&G will continue to monitor how the company balances innovation, policy influence and decarbonisation.

# Appendix

## M&G European Loan Fund: Climate Change with Zayo

M&G has engaged with telecommunications provider Zayo in the recent increase in the company's scope 1 and 2 carbon emissions and ask them to share its pathway for achieving SBTi targets.

The 2021-22 increase was explained due to an acquisition. For Scope 1, the company has completed auditing its 2023 data, noting a drop in 2022 emissions due to improved data availability. A consultation with the company's sponsor identified areas where the company can control or influence emissions. For Scope 2, the focus remains on electricity across 49,000 global sites, with an increase expected as the company expands. Zayo informed M&G that it has purchased 100% renewable electricity for scope 2. In terms of fleet expansion, the company plans on replacing less fuel-efficient vehicles whilst considering return on investment, and are focusing on hybrids due to logistical challenges in sourcing EVs. Zayo is also beginning to implement green solutions for hotels and airlines for employees who travel, and targeting purchased goods and services in order to engage with external stakeholders. Regarding the actions Zayo intends to take for its net zero target, the company has allocated significant opex, with detailed work on technical sites and funding focusing on 'easy wins'. Zayo does not use carbon offsets for scope 1 and 2 but is allowed to for scope 3.

M&G will continue to monitor this.

# Appendix

## Scenario analysis conducted in 2024 to assess the impact of CRROs on the Scheme’s funding and investment strategy

For the 2024 Climate Change report, the Trustee’s investment adviser updated the scenario analysis by including an assessment of the impact of CRROs on the Scheme’s funding and investment strategy. The scenarios used for the investment analysis are set out below. These are based on the ClimateMAPS framework developed by Ortec Finance and Cambridge Econometrics and applied to the Scheme’s investments by LCP. They are further described in the Appendix.

1. **High Warming:** Continuation of low carbon policies in force and current technological trends. The world **fails to meet** the Paris Agreement goals, and the resulting high warming leads to severe physical impacts
2. **Limited Action:** Policymakers implement limited new climate policies but **fall short** of meeting the Paris Agreement goals, resulting in a combination of transition and physical impacts
3. **Net Zero Financial Crisis:** Global net zero CO<sub>2</sub> emissions **achieved by 2050** via rapid and effective climate action. However, financial markets are **slow to react**, and **then react abruptly**

The outcome of the scenario analysis is summarised in the table below:

	High Warming	Limited Action	Net Zero Financial Crisis
Impact on TP* funding ratio from investment performance	Minus 1.3% pt	Minus 0.6% pt	Minus 2.7% pt

*\*‘TP’ refers to ‘Technical Provisions’, the amount required by the Trustee to provide for the Scheme’s liabilities on an ongoing basis. The analysis was based on the asset allocation as at 30 September 2023. At that date the Scheme had a TP funding ratio of 104.8%. The impacts (which will occur in the future) are expressed in terms of the equivalent change in asset values at the date of the analysis.*

Overall, the results of the scenario analysis undertaken show that, whilst climate change is a significant risk, the Scheme’s investment strategy and funding position is resilient. This is largely because the Scheme’s investment strategy is relatively low risk. Approximately half of its assets are invested in UK government bonds and most of the other assets invested in bonds issued by companies with an investment-grade rating, which therefore have a low risk of default. There is no direct exposure to real assets (property or infrastructure investments). High levels of hedging against the risk of changes in interest rates and inflation also contribute to the resilience.

In the three scenarios considered, the Scheme would retain a surplus on the TP basis. The Net Zero Financial Crisis scenario would have the largest impact in the short term as a market shock relating to the financing of a rapid energy transition reduces the surplus. This market shock is expected to be significant in the short term, but the impact would be eliminated at the end of a five-year period as market conditions stabilise and recover.

The analysis therefore suggests that the ability of the Scheme to pay members benefits, and its strategy to do so, are not likely to be significantly affected. The Trustee recognises the relatively muted impact of climate-related risks as calculated under the scenarios modelled.

# Appendix

## Further details on climate-related scenario analysis and results for investments

### Modelling approach

The climate scenario analysis is based on a model developed by Cambridge Econometrics and Ortec Finance. Ortec Finance are expert providers of investment decision technology and solutions. Cambridge Econometrics specialise in modelling global economies and advise clients such as the European Commission.

The three climate scenarios were projected year by year, over the next 40 years.

The results are intended to help the Trustee to consider how resilient the Scheme funding and investment strategy are to climate-related risks.

Cambridge Econometrics and Ortec Finance have modelled the effects of three possible paths that the world could follow. These are just three illustrative scenarios and they are not intended to be "worst case". They are only three scenarios out of countless others which could have been considered. Other scenarios could give better or worse outcomes for the Scheme.

The version of the model used for the Scheme's analysis was based on macroeconomic data on 31 December 2022, calibrated to market conditions on 30 September 2023.

### Limitations of the modelling

As this is a "top-down" approach, investment market impacts were modelled as the average projected impacts for each asset class, i.e. assuming that the Scheme's investments are affected by climate-related risk in line with a typical "market average" portfolio for the asset class. This contrasts with a "bottom up" approach, which would model the impact on each individual investment held in the Scheme's investment portfolio. As such, it does not require extensive Scheme-specific data and so the Trustee was able to consider the potential impacts of the three climate scenarios for all of the Scheme's assets.

In practice, the Scheme's investment portfolio may not experience climate impacts in line with the market average portfolio, as the Scheme's investment portfolio differs from the market average. The Trustee uses climate-related metrics and investment assessments as part of its quarterly reporting to understand the specific exposures within the portfolio and how this may differ from a market average portfolio.

The Trustee notes that the three climate scenarios chosen are intended to be plausible, not "worst case", and the modelling is based on median outcomes. It therefore illustrates how the centre of the "funnel of doubt" surrounding the Scheme's funding projection might be affected by climate change. It does not consider tail risks within that funnel, nor does it consider how the funnel might be widened by the additional uncertainties arising from climate change. In addition, only three out of an infinite number of scenarios have been considered. Other scenarios could give better or worse outcomes for the Scheme.

Uncertainty in climate modelling is inevitable. In this case, key areas of uncertainty relating to the financial impacts include how climate change might affect interest rates and inflation, and the timing of market responses to climate change. ClimateMAPS, like most modelling of this type, does not allow for all climate-related impacts and therefore, in aggregate, is quite likely to underestimate the potential impacts of climate-related risks, especially for the High Warming scenario. For example, tipping points (which could cause runaway physical climate impacts) are not modelled and no allowance is made for knock-on effects, such as climate-related migration and conflicts.

The Trustee has considered the potential impact of such limitations in the modelling. The Trustee is comfortable that, as long as these limitations are understood, the scenarios still provide valuable insights to inform climate risk assessment and management.

### Further detail on how the model works

The scenario analysis is based on the ClimateMAPS model developed by Ortec Finance and Cambridge Econometrics, and was then applied to the Scheme's assets and liabilities by LCP.

ClimateMAPS uses a top-down approach, which models climate impacts on both assets and liabilities, allowing the resilience of the Scheme's funding and investment strategies to be considered. The model output is supported by in-depth narratives that bring the scenarios to life, to help the Trustee's understanding of climate-related risks and opportunities.

# Appendix

ClimateMAPS uses Cambridge Econometrics’ macroeconomic model, which integrates a range of social and environmental processes, including carbon emissions and the energy transition. LCP believes that it is one of the most comprehensive models of the global economy and is widely used for policy assessment, forecasting, and research purposes. The outputs from this macroeconomic modelling (primarily, impacts on country GDP) are then translated into impacts on financial markets by Ortec Finance, using assumed relationships between the macroeconomic and financial parameters.

Ortec Finance runs the projections many times, using stochastic modelling to illustrate the wide range of climate impacts that may be possible, under each scenario’s climate pathway. LCP takes the median (i.e. the middle outcome) of this range of impacts for each relevant financial parameter and adjusts it to improve its alignment with LCP’s standard financial assumptions.

LCP then uses these adjusted median impacts to project the assets and liabilities of the Scheme to illustrate how the different scenarios could affect its funding level.

No allowance was made for unplanned changes to the investment strategy or contributions in response to the climate impacts modelled.

## Description of the scenarios and why the Trustee chose them

Transition	Description	Why the Trustee chose it
<b>High Warming</b>	Global net zero carbon emissions not reached by 2050; only existing climate policies are implemented and temperatures rise significantly.	To explore what could happen to the Scheme’s finances if carbon emissions continue at current levels and this results in significant physical risks from changes in the global climate that disrupt economic activity.
<b>Limited Action</b>	Intended as a potential middle ground scenario between the other two scenarios. Some new policies are implemented but ultimately net zero is not achieved by 2050.	To see how the Scheme’s finances could play out if the economy makes a material shift towards low carbon by 2030 but global net zero carbon emissions are not achieved by 2050.
<b>Net Zero Financial Crisis</b>	Global net zero carbon emissions is achieved by 2050; rapid and effective climate action (including using carbon capture and storage). Financial markets are initially slow to react and then react abruptly.	To look at the risks and opportunities for the Scheme if global net zero carbon emissions is achieved by 2050, but financial markets are volatile as they adjust to a low carbon economy.

# Appendix

## Key features of the climate scenarios considered

Scenarios	High Warming	Limited Action	Net Zero Financial Crisis
<b>Low carbon policies</b>	Continuation of current policies and technology trends (eg significant falls in renewable energy prices)	Moderate steps taken by policymakers to increase climate action including working towards the 2030 targets and net zero commitments. Carbon Capture and Storage also used	Ambitious low carbon policies, high investment in low carbon technologies and substitution away from fossil fuels to cleaner energy sources and biofuel.  Carbon Capture and Storage also used to achieve global net zero by 2050
<b>Paris Agreement outcome</b>	Paris Agreement goals not met	Paris Agreement goals not met	Global net zero CO2 achieved by 2050; Paris Agreement goals met
<b>Global warming</b>	Average global warming is about 2°C by 2050 and 4.2°C by 2100, compared to pre-industrial levels	Average global warming is about 1.8°C by 2050 and 2.8°C by 2100, compared to pre-industrial levels	Average global warming stabilises at around 1.5°C above pre-industrial levels
<b>Physical impacts</b>	Severe physical impacts	High physical impacts	Moderate physical impacts
<b>Impact on GDP</b>	Global GDP is significantly lower than the climate-uninformed scenario in 2100  For example, UK GDP in 2100 predicted to be almost 50% lower than in the climate-uninformed scenario	Global GDP is lower than the climate-uninformed scenario in 2100  For example, UK GDP in 2100 predicted to be about 30% lower than in the climate-uninformed scenario	Global GDP is lower than the climate-uninformed scenario in 2100  For example, UK GDP in 2100 predicted to be about 5% lower than in the climate-uninformed scenario
<b>Financial market impacts</b>	Physical risks priced in over the period 2026-2030. A second repricing occurs in the period 2036-2040 as investors factor in the severe physical risks	Physical risks priced in over the period 2026-2030. A second repricing occurs in the period 2036-2040 as investors factor in the high physical risks	Abrupt repricing of assets and a sentiment shock to the financial system in 2025

Source: Ortec Finance, Cambridge Econometrics, LCP.

## Website

Find out more about your pension scheme by visiting: [www.invensypensions.co.uk](http://www.invensypensions.co.uk)

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