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MICHELIN PENSION AND LIFE ASSURANCE PLAN CLIMATE CHANGE REPORT (DB SECTION)

PLAN YEAR TO 31 MARCH 2025

A REPORT FOR MEMBERS BY THE TRUSTEE OF THE MICHELIN PENSION AND LIFE ASSURANCE PLAN

INTRODUCTION

The Trustee of the Michelin Pension and Life Assurance Plan views climate change as a risk to society, the economy and the financial system, but also recognises that reducing emissions throughout the economy presents opportunities. These risks and opportunities may impact the DB Section's funding position as well as the Company's ability to support the DB Section (known as covenant strength). The Trustee monitors this potential impact and has taken steps to reduce climate-related risks for the Plan.

This is Trustee's third climate report, which describes how the Trustee has continued its work on identifying, assessing and managing climate-related risks and opportunities to the DB Section of the Plan during the Plan year to 31 March 2025. It also comments on the Plan's progress over the year in meeting the Trustees climate-related target.

We hope you find this report helpful, but if you have any comments or questions about it, please contact the Pensions Team on **0344 3912 422** or email us at **Michelin@pensionsoffice.com**

Vincent Dormieux

Chairman of the Trustee

Signed: Vincent Dormieux

Date: 30 October 2025

KEY POINTS

Executive summary

Detailed report

Appendices

Published alongside the Plan's annual report and accounts for the Plan year to 31 March 2025 and available online.

EXECUTIVE SUMMARY

This is the Trustee's third report in line with the recommendations of the Taskforce on Climate-Related Financial Disclosures (TCFD), as required by the 2021 Climate Change Governance and Reporting Regulations for Occupational Pension Schemes.

The purpose of this report is to describe the Trustee's framework for managing climate-related risks and opportunities and how it has been implemented in the year to 31 March 2025.

During the year in September 2024, the Trustee has contracted with a bulk annuity policy provider who is responsible for paying pension benefits for the majority of the DB Section members (over 95% of the Plan's liabilities). This change has led to a number of updates in the Trustee's framework and implementation.

This report covers the Plan's DB Section and is broken down into the following key areas:

- **Governance –** the Trustee's governance around climate-related risks and opportunities for the DB Section.

The Trustee continues to have a robust governance framework in place to maintain oversight of climate related risks and opportunities relevant to the DB Section of the Plan. The Trustee holds ultimate responsibility for ensuring effective governance of climate change risks and opportunities. It receives support from external advisers to ensure appropriate oversight of these risks and opportunities.

With the help of the external advisers, the Trustee reviewed its climate governance statement in March 2025. The only amendment made was adding wording on the roles and responsibilities of the Plan's new bulk annuity policy provider. Further detail on the review has been outlined in Section 1.

- **Strategy –** the potential impacts of climate-related risks and opportunities on the DB Section and the resilience of the investment and funding strategies under different climate-related scenarios.

The Trustee has considered climate-related risks and opportunities over various time periods which it believes are most relevant to the DB Section of the Plan.

The Trustee undertook climate scenario analysis in January 2025. The full buy-in with Aviva in 2024 has effectively transferred the majority of the Plan's exposure to climate risk to Aviva. The insurance regime has strong protections in place which mean it is likely that Aviva will continue to pay the contracted benefits in full. To the extent that Aviva or the insurance industry as a whole are unprepared for the impacts of climate change, climate risk increases the chance that insurers will be unable to meet the benefit payments promised.

In summary, the DB Section of the Plan is currently in a strong funding position and has insured the majority of the Plan's liabilities with Aviva. The Trustee monitors the financial strength of the Michelin Group as well as Aviva, including consideration of how climate-related risks are managed. Further details of the results are set out in Section 2.

- **Risk Management –** the processes used by the Trustee to identify, assess, and manage climate-related risks within the DB Section.

Over the Plan year, the Trustee used various processes to identify, assess, and manage climate-related risks. This included a review of the investment managers' approaches to climate risks and opportunities. Overall, the Trustee was satisfied that the majority of its managers had embedded climate considerations into their philosophy and management processes and that all the managers

were taking steps to improve their climate capabilities. The Trustee used the output of the review to drive climate related engagement conversations with their investment managers over the year.

Further details of this and the other ways the Trustee identifies, assesses, and manages climate-related risks are set out in Section 3.

- **Metrics and Targets –** the metrics and targets used to assess and manage relevant climate-related risks and opportunities.

The Trustee monitors four climate-related metrics to help it monitor climate-related risks and opportunities to the Plan: an absolute emissions metric, an emissions intensity metric, a portfolio alignment metric and a data quality metric. These metrics are calculated on an annual basis.

The Trustee previously set a target based on the portfolio alignment metric; for 45% of portfolio companies (weighted by exposure) within the corporate bond investments to have set science-based targets (SBTs) by 31 December 2028. Following the completion of the full buy-in, the Plan no longer holds any corporate bonds so the target is no longer applicable. The Trustee therefore set a new target based on the data quality metric; to have (at least) 50% "reported" and 0% "not available" scope 1 and 2 greenhouse gas emissions data by 2028 (as % of total assets excl. LDI and cash), with the balance being "estimated" data. The Trustee believes improving data quality in this way is important as it allows it to better understand the Plan's environmental impact in the first place, and to consider actions in response. This applies particularly to the illiquid funds that make up the majority of the Plan's remaining assets (outside the buy-in policy).

The Trustee reviewed its climate metrics and targets in March 2025, noting that the majority of the Plan's assets (broadly 80%) are now held in a buy-in policy, therefore the majority of the Plan's climate risks and opportunities have been passed to the insurer. The Trustee found that the data quality metric improved over the Plan Year. However the Plan's carbon intensity (ie emissions per £1m invested) and SBT alignment metrics worsened over the Plan Year. This was largely due to the full disinvestment from the Plan's corporate bond holdings, as the corporate bond portfolios generally had lower carbon emissions and higher SBT alignment than the remaining illiquid funds.

The Trustee used the output of the review to drive engagement with the Plan's illiquid asset managers post Plan year end. The Trustee will continue to review progress towards the target each year and consider whether additional steps are needed to increase their chance of meeting the target. Further details on the metrics, target and calculations are set out in Section 4.

Overall, the Trustee believes the Plan continues to be in a resilient position, in particular following the full buy-in, however we will continue to monitor the Plan's progress over time to continue to mitigate climate risks and take advantage of opportunities where possible.

1 GOVERNANCE

How the Trustee maintains oversight of climate related risks and opportunities relevant to the DB Section of the Plan

In March 2025, the Trustee reviewed the climate its climate Governance Statement to assess whether any changes should be made.

When considering whether amendments should be made, the Trustee took into account the following factors:

1. Whether the roles and responsibilities were followed appropriately by the various entities; and
2. If the nature and frequency of the activities allow the Trustee to effectively assess the climate related risks and opportunities for the Plan

Based on the factors above and a recommendation from its external advisers, the Trustee amended the Governance Statement to add wording on the roles and responsibilities of the Plan's new bulk annuity policy provider.

The next sub-sections highlight the governance process, roles and responsibilities of all stakeholders of the DB Section of the Plan over the Plan Year to 31 March 2025.

Overview of processes

The Trustee holds ultimate responsibility for ensuring effective governance of climate change risks and opportunities in relation to the DB Section. Identifying, assessing and managing these risks and opportunities is a strategic priority for the whole Plan and therefore this is undertaken by the Trustee Board. The Trustee receives support from external advisers with regards to certain responsibilities in respect to climate related risks and opportunities management. No changes have been made to governance processes since the last TCFD report.

The Trustee has maintained the DB Section's climate-related governance processes over the year to 31 March 2025, including:

- Setting out responsibilities between relevant parties to ensure appropriate oversight of climate-related risks and opportunities. Further details on the specific roles and responsibilities of the Trustee and other parties are set out in Section 1-3 of this Governance section.
- Committing to a Climate Governance Statement, which documents the governance processes the Trustee has put in place to ensure that it has oversight of the climate-related risks and opportunities relevant to the Plan, and that it can be confident that its statutory and fiduciary obligations are being met.
- Including the Trustee's policies and beliefs on ESG factors including climate change in the Plan's Statement of Investment Principles (SIP).
- Including risks posed by climate change in the Plan's risk register. This register includes risk ratings, mitigating actions and controls. The climate risk and opportunities are considered from the investment, funding and covenant perspectives.
- The Trustee receiving regular training sessions and updates from its advisers covering responsible investment and climate related risks & opportunities

1. Roles and responsibilities

The Plan's Climate Governance Statement sets out the division of responsibilities between the Chair of the Trustee Board, the Trustee, and other parties including the Plan's external advisers (i.e. the Plan's Actuarial, Investment, Covenant, Legal advisers, Investment Managers and Bulk Annuity Provider). This is to ensure appropriate oversight of the climate-related risks and opportunities relevant to the Plan and so that the Trustee could be confident that its statutory and fiduciary obligations were being met.

2. The Trustee's role

Chair of the Trustee Board

It is the Chair of the Trustee Board's responsibility to ensure that sufficient time is allocated for consideration and discussion of climate matters by the Trustee and its advisers.

Trustee

ensuring the Trustee Directors have sufficient knowledge and understanding of climate change to fulfil their statutory and fiduciary obligations, and are keeping this knowledge and understanding up to date. This includes knowledge and understanding of the principles relating to the identification, assessment and management of climate-related risks and opportunities for the Plan;

- putting effective climate governance arrangements in place;
- determining the short-, medium- and long-term periods to be used when identifying climate-related risks and opportunities for the Plan;
- identifying and assessing the main climate-related risks and opportunities for the Plan over these time periods and documenting the management of them;
- incorporating climate-related considerations into strategic decisions relating to the Plan's investments and funding arrangements;
- incorporating climate-related considerations into the Plan's investment beliefs, investment policies, risk register and ongoing investment monitoring;
- allowing for climate-related considerations when assessing and monitoring the strength of the covenant supporting the Plan;
- selecting and regularly reviewing metrics to inform its identification, assessment and management of climate-related risks and opportunities, and setting and monitoring targets to improve these metrics over time where appropriate;
- ensuring that the Plan's actuarial, investment, covenant and legal advisers have clearly defined responsibilities in respect of climate change, that they have adequate expertise and resources, including time and staff, to carry these out, that they are taking adequate steps to identify and assess any climate-related risks and opportunities which are relevant to the matters on which they are advising, and that they are adequately prioritising climate-related risks;
- considering and documenting the extent to which the advisers' responsibilities are included in any agreements, such as investment consultants' strategic objectives and service agreements;
- ensuring that the Plan's investment managers are managing climate-related risks and opportunities in relation to the Plan's investments, and have appropriate processes, expertise and resources to do this effectively;

- communicating with Plan members and other stakeholders on climate change where appropriate, including public reporting in accordance with The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021, The Occupational and Personal Pension Schemes (Disclosure of Information) Regulations 2013 (together "TCFD reporting") when required.

Nature and frequency of monitoring

The Trustee considers a range of different information about the climate change risks and opportunities faced by the Plan to enable it to fulfil its responsibilities set out above.

Quarterly review

At its regular Board meeting each quarter, the Trustee will receive and review:

- the Plan's risk register, following review and updates from its advisers;
- updates on the Plan's investments from the Plan's investment advisers.

These documents will incorporate climate-related risks and opportunities as appropriate, in accordance with the roles and responsibilities set out above.

Footnote:

[1]Note that, for convenience, this Governance Statement refers to the reporting requirements under the climate regulations (which are based on the recommendations of the Taskforce on Climate-related Financial Disclosures) as "TCFD reporting", although in practice it is recognised that the recommendations of the TCFD may change over time and may not always be aligned with the statutory requirements applying to the Plan. Where the recommendations of the TCFD exceed those required under the regulations, the Trustee will consider the appropriateness of any voluntary adoption of those recommendations.

Annual review

At one or more Board meetings each year, the Trustee will review, revise (where appropriate) and approve:

- its governance arrangements, investment beliefs and investment policies in relation to climate change;
- its draft TCFD reporting;
- a draft business plan for the following year that outlines the main topics due to be discussed at each Board meeting, including climate-related topics.

At one or more Board meetings each year, the Trustee will review:

- a responsible investment update from the Plan's investment advisers that reviews the Plan's investment managers in relation to ESG (environmental, social and governance) factors and climate change;
- data on ESG metrics for the Plan's investments from its investment advisers, including at least three climate related metrics, and performance against any targets set in relation to these metrics;
- whether to retain or replace any targets set in relation to these metrics;
- whether it is appropriate to carry out scenario analysis that illustrates how the Plan's assets and liabilities might be affected under various climate change scenarios, in years when this is not required because it has been carried out within the previous two years;

- the advisers' climate competency and assess how they have performed against their climate responsibilities.

Less frequent reviews

The Trustee will consider climate-related risks and opportunities whenever the following activities are undertaken:

- actuarial valuation of the Plan;
- review of the Plan's investment strategy;
- assessment of the sponsoring employer's covenant.

The Trustee will also at least every three years, and following any major changes in the Plan's position, review:

- its choice of short-, medium- and long-term time periods to be used when identifying climate-related risks and opportunities to the Plan;
- the results of scenario analysis that illustrates how the Plan's assets and liabilities might be affected under various climate change scenarios, along with commentary on the potential impacts for the sponsoring employer and the implications for the resilience of the Plan's funding and investment strategies;
- its choice of metrics to inform its identification, assessment and management of climate-related risks and opportunities.

Whenever reviewing agreements with external advisers, or appointing new advisers, the Trustee will consider and document the extent to which the advisers' climate-related responsibilities are included in the agreements and/or any adviser objectives set.

3. Other parties' and advisors' roles

Actuarial adviser

In broad terms, the Plan's actuarial adviser is responsible, as requested by the Trustee, for:

- advising how climate-related risks and opportunities might affect the Plan's funding position over the short-, medium- and long-term and the implications for the Plan's funding strategy, long-term objective and journey plan;
- working with the Trustee's other advisers to assist the Trustee in incorporating climate change in its governance arrangements, risk register, ongoing investment monitoring and communication with stakeholders (including, but not limited to, its TCFD reporting) as appropriate.

Investment adviser

In broad terms, the Plan's investment adviser is responsible, as requested by the Trustee, for:

- providing training and other updates to the Trustee on relevant climate-related matters;
- helping the Trustee to formulate its investment beliefs in relation to climate change and reflecting these in the Plan's investment policies and strategy;
- advising how climate-related risks and opportunities might affect the different asset classes in which the Plan might invest over the short-, medium- and long-term, and the implications for the Plan's investment strategy and journey plan;

- advising the Trustee on the appropriateness and effectiveness of the Plan's investment managers' processes, expertise and resources for managing climate-related risks and opportunities, given the Trustee's investment objectives and beliefs, and engaging with the managers to improve their climate-related integration over time;
- assisting the Trustee in incorporating climate change in its investment monitoring;
- advising on the inclusion of climate change in the Plan's governance arrangements, risk register and ongoing investment monitoring, working with the Trustee and its other advisers as appropriate;
- assisting the Trustee in identifying, monitoring and using suitable climate-related metrics and targets in relation to the Plan's investments, including liaising with the Plan's investment managers regarding provision of the metrics;
- leading on the preparation of the Trustee's TCFD reporting, and assisting with other communication with stakeholders in relation to climate change, working with the Trustee and its other advisers as appropriate.

Covenant adviser

In broad terms, the Plan's covenant adviser is responsible, as requested by the Trustee, for:

- considering in periodic covenant reviews how climate-related risks and opportunities might affect the Plan's covenant strength over the short-, medium- and long-term and the implications for the Plan's journey plan;
- noting in the Plan's covenant monitoring any changes in the policies and practices of the sponsoring employer relating to climate change, and the employer's progress against any climate-related targets it has set, working with the Trustee and its other advisers as appropriate;
- working with the Trustee's other advisers to assist the Trustee in incorporating climate change in its governance arrangements, risk register, ongoing investment monitoring and communication with stakeholders (including, but not limited to, its TCFD reporting) as appropriate.

Legal adviser

In broad terms, the Plan's legal adviser is responsible, as requested by the Trustee, for:

- providing training and other updates to the Trustee on relevant climate-related legal matters;
- ensuring the Trustee is aware of its statutory and fiduciary obligations in relation to climate change and working with the Trustee's other advisers to ensure alignment between these obligations and:

1. any Trustee formulation of its investment beliefs in relation to climate change; and
2. the identification and monitoring of climate-related metrics and targets in relation to the Plan's investments;

- working with the Trustee's other advisers to assist the Trustee in incorporating climate change in its governance arrangements, risk register, ongoing investment monitoring framework and communication with stakeholders (including, but not limited to, its TCFD reporting) as appropriate;
- where requested, assisting in the documentation of any contractual requirements to be included in the arrangements with the Plan's investment managers with respect to the governance, management and reporting of climate-related matters.

Investment managers

In broad terms, the Plan's investment managers are responsible for:

- identifying, assessing and managing climate-related risks and opportunities in relation to the Plan's investments, in line with the investment management arrangements agreed with the Trustee;
- exercising rights (including voting rights) attaching to the Plan's investments, and undertaking engagement activities in respect of those investments, in relation to climate-related risks and opportunities in a way that seeks to improve long-term financial outcomes for Plan members;
- reporting on stewardship activities and outcomes in relation to the Plan's investments from time to time;
- providing information to the Plan's investment adviser on climate-related metrics in relation to the Plan's investments, as agreed from time to time, and using its influence with investee companies and other parties to improve the quality and availability of these metrics over time.

Bulk annuity policy provider

The Trustee has contracted with a bulk annuity policy provider who is responsible for paying pension benefits for the majority of the DB Section members (over 95% of the Plan's liabilities).

The Trustee has very limited influence over the bulk annuity policy provider's investment and climate practices, since full discretion over how the assets are invested was delegated to the provider as part of the transaction. However, the provider's investment and climate practices were taken into account by the Trustee at the point of selecting the provider and before entering into the contract, and the Trustee was comfortable with their processes and philosophy at this point.

2 STRATEGY

1. Identification and assessment of climate-related risks and opportunities relevant to the DB Section

The Trustee recognises the risks and opportunities arise from both the physical effects of climate change, such as rising temperatures and more extreme weather events, as well as from the effect of transitioning to a lower carbon economy to limit the extent of climate change – for example, government polices to restrict or discourage the use of fossil fuels, technological advantages in renewable energy, and shifts in consumer demand for "greener" products.

These risks and opportunities are considered further in the following sections where we discuss the Trustee's approach to investment, covenant and funding. In particular, the Trustee has used climate scenario analysis to assess the risks and opportunities.

Changes to investment strategy over the Plan Year

In September 2024 the Plan implemented a full buy-in with the insurer Aviva. A large proportion of the buy-in was funded by the sale of the Plan's LDI and corporate bond mandates.

- The LDI and corporate bonds previously hedged a large proportion of the interest rate and inflation risks of the DB Section of the Plan, which the buy-in now hedges, so those risks are overall broadly unchanged.

- The DB Section of the Plan is now exposed to insurer counterparty risk rather than credit risk from the corporate bonds.
- The buy-in policy now hedges longevity risk, which was previously unhedged. Climate change

TIME HORIZONS	WHY THE TIME HORIZON WAS CHOSEN
Short term	**2 years –** ie the end of 2026. As currently adopted, the 2026 point was set as three years on from the date of the previous scenario analysis, in line with the time between actuarial valuations.
Medium term	**4 years –** This is the period until **2028** ie end of the derisking plan embedded in the approach to the 2020 actuarial valuation, but more relevantly, when the Plan's private assets are expected to have largely run-off.
Long term	**14 years –** Consistent with the **2038** date previously adopted. This was based on the approximate duration of aggregate Plan liabilities.

2. Climate scenario analysis

Scenario analysis is a tool for examining and evaluating different ways in which the future may unfold. In March 2024 and March 2025, the Trustee used scenario analysis to consider how climate change might affect the DB Section's investments, funding strategy and covenant.

The analysis looked at three possible scenarios, as outlined below.

SCENARIO	DESCRIPTION
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. *Based on the International Energy Agency's World Energy Outlook 2019 – Current Policies Scenario.
Limited action	Policymakers implement **limited** new climate policies and **fall short** of meeting the Paris Agreement goals, resulting in a combination of transition and physical risks.
Net zero financial crisis	Global net zero Co_2 emissions **achieved by 2050** via rapid and effective climate action. However, financial markets are **slow to react**, and **then react abruptly.**

The Trustee acknowledges that many alternative scenarios exist, but found these were a helpful set of scenarios to explore how climate change might affect the Plan in future. To provide further insight, the Trustee also compared the outputs under each scenario to a "climate uninformed base case", that makes no allowance for either changing physical or transition risks in future.

Results of the analysis

Under all three scenarios, the Plan was projected to remain in a self-sufficiency surplus, with the surplus growing over the long term.

The DB Section of the Plan is currently in a strong funding position and has insured the majority of the Plan's liabilities with Aviva. The buy-in has effectively transferred the majority of the Plan's exposure to climate risk to Aviva. The insurance regime has strong protections in place which mean it is likely that Aviva will continue to pay the contracted benefits in full.

The Plan's insured liabilities are likely to be subject to similar financial risks to those for the residual non-insured liabilities. However, for climate scenario modelling purposes an assumption is that insurers are able to fully absorb and manage the effects of climate change, and so assumes the insurer will continue to pay the contracted benefits in full.

The DB Section of the Plan has exposure to climate-related investment risks mainly through its residual allocation to growth assets (c£330m in illiquid credit assets). These assets are currently expected to leave a surplus following repayment of the Company loan. The risks in the residual assets will reduce further as the illiquid assets run off gradually over time.

Impact of climate change on the insurer's ability to pay pensions

Climate change is a systemic risk that will undoubtedly have profound impacts on the insurance sector over the coming years. To the extent that Aviva or the insurance industry as a whole are unprepared for these changes, climate risk increases the chance that insurers will be unable to meet the benefit payments promised.

The Trustees took into account climate risks when choosing the insurer for the Plan. Advice from XPS reported that Aviva overall had a "High level of ESG integration within investment decision making and commitment to stewardship. Climate change risks are explicitly considered and analysed".

The regulatory regime, the insurer's reserves and the financial services compensation scheme (to the extent this covers your policy) continue to protect against insurer default due to climate change as well as any other risk. However, the systemic nature of climate change risk increases the chance that these regulatory protections prove insufficient, particularly in higher warming scenarios.

The Trustee monitors the financial strength of Aviva as part of its annual covenant monitoring process, and this monitoring includes consideration of Aviva's framework for identifying and managing ESG risks including climate change.

Impact of climate change on life expectancy

If a member lives longer, the Plan pays the member's DB pension for longer and therefore needs more assets to make the payments. A potentially significant driver for future mortality could be the knock-on effects of a change to economic growth in the UK due to rising temperatures or the net zero transition.

However, the buy-in policy now hedges longevity risk, which was previously unhedged. Therefore even though climate change could have a material impact on future longevity expectations, the associated risks have now been transferred to the insurer.

3. Impact of climate change on covenant (ie factors that impact the Employers' ability to support the DB Section of the Plan)

As part of the 2023 triennial valuation report (and subsequent covenant monitoring), the Trustee's covenant advisor (LCP) considered the Group 's exposure to climate risks as well as the associated opportunities. The key conclusions are summarised in the below table:

Transition risks

Transition risks incorporate the impact on businesses of changes in government policy, markets and technology that are intended to facilitate a lower level of emissions along the way to a lower carbon world. Key examples of such transition risks include (but are not limited to):

- Failure to demonstrate and execute a clear climate strategy, leading to reputational issues and loss of business / investor and staff support
- Laws and regulations which may impact product portfolio requirements, which Michelin needs to adapt to (quicker than its competitors)
- Loss of market share if unable to meet evolving customer and stakeholder expectations
- Increased costs (eg raw materials, energy or taxes)

Physical risks

Physical risks incorporate the acute impact of catastrophic weather events, the impact of chronic long-term changes in temperature and the availability of natural resources. They tend to be longer term in nature.

Michelin runs a global operation and is the world's largest purchaser of natural rubber, making it more exposed to physical risks than many other companies.

Possible physical risks, which could create an operational, financial and strategic impact, include (but are not limited to):

- Supply chain impact (eg scarcity) to key raw materials (eg natural rubber).
- The requirement to relocate operations to less risk areas.
- Physical damage to Michelin's existing assets.

These conclusions were initially drawn in 2023, but re-assessed in 2024 as part of the Trustee's annual covenant monitoring framework, where it was considered that the Group's exposure to climate risk was materially unchanged. This conclusion was mainly driven by a broadly unchanged strategy / governance structure, the lack of new significant climate risks identified, and the Group's progress against its climate targets.

Risk management, targets and opportunities

- Despite notable exposure to climate risk, Michelin appears well-engaged with various initiatives designed to mitigate climate risks, including agreeing its carbon reduction targets with SBTi (with more aggressive targets now being set), and demonstrating clear progression against these.
- Governance processes ensure that key staff are involved in implementing climate strategy and managing climate risk at multiple levels of the hierarchy.
- Michelin's strategy covers actions over different timeframes, and the actions to mitigate climate risk also serve as opportunities to develop its product portfolio, offer new services and be at the forefront of change in the market.
- The financial strength of the Group enables it to absorb estimated costs from downside climate scenarios (such as a catastrophic weather event) and fund the investment necessary to execute its sustainability strategy.

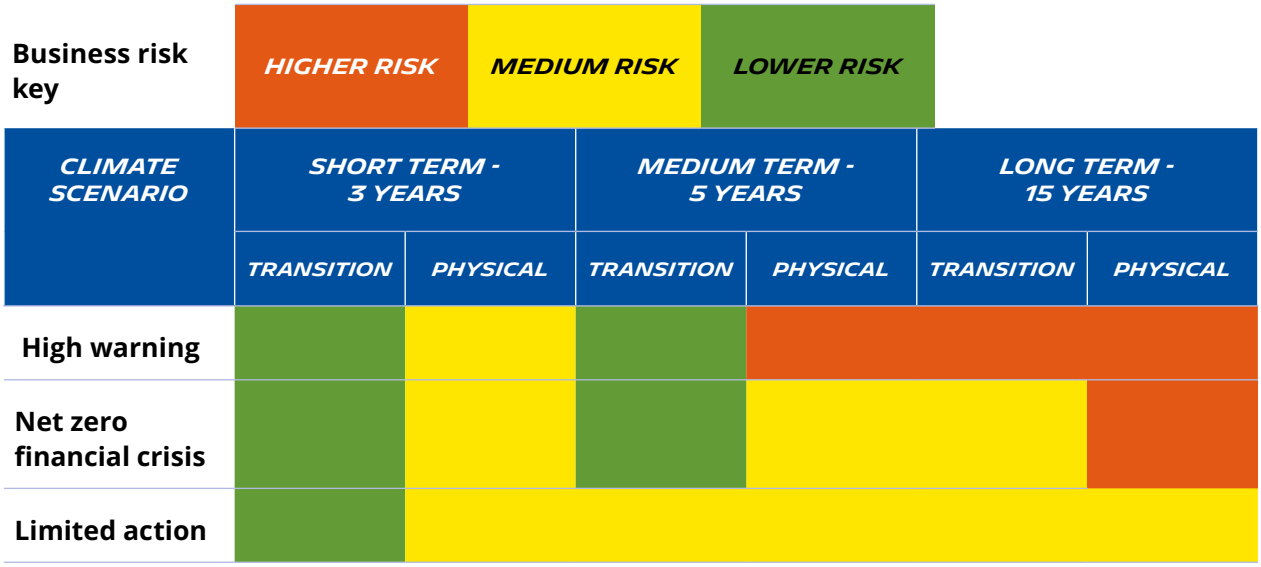
Matter	Comment
Fundamentals	SBTi in place and appears on track – key is to stay on track
Investors	Strong grading from MSCI and the CDP, with Michelin considered a leader in the field
Consumer action / preferences	Uncertain how this will develop over time – monitor

In preparing the report, LCP considered information within the public domain (for example, the Group's annual integrated report, CDP report and the Group's sustainable development goals) and independent ratings from organisations such as CDP and MSCI. From this diverse range of sources, conclusions were drawn to allow the Trustee to form an independent assessment of the Plan's exposure to climate risk, from a covenant perspective.

The majority of LCP's analysis focused on the Group (rather than the Employers), which is responsible for setting the tone on a sustainability strategy across all the group companies. This is broadly consistent with how the Trustee considers the covenant more generally.

In 2025, LCP re-assessed its conclusions as part of the Trustee's annual covenant monitoring framework. In this report, LCP concluded that the Plan's exposure to climate risk was materially unchanged from its assessment as part of the 2023 triennial valuation, from a covenant perspective.

The Trustee also considered how covenant risk may develop in each scenario in relation to both physical and transition risks, over the defined time horizons. Through analysing the Group's climate risks and strategy to mitigate the risks, LCP has provided a risk grading for each scenario, for each type of risk, over the three time horizons considered. The below matrix, which was approached using qualitative methods, is specific to the Group given the industry it operates within (the tyre market) and its reliance on the automotive industry.



[2] References to "the Group", relate to the group of companies owned and controlled by Compagnie Générale des Établissements Michelin SCA.

The Group operates in an industry which is exposed to a range of transition and physical risks but has well-defined and diverse strategy to combat the risks posed by climate change, and has significant resources dedicated to this area which reduces its exposure to climate risks. As a result, over the short and medium term, the Group appears to be well placed to benefit from the potential opportunities posed by the energy transition, whilst also mitigating the risks that are likely to arise.

A key conclusion from LCP's integrated analysis was that, even in the scenario which projects the largest impact on the Plan's funding position (the Net-Zero Financial Crisis, in the medium term), **the scale of the projected impact is not such that it would result in a material impact on the Group's ability to support the Plan, which is projected to remain in a self-sufficiency surplus under all scenarios.**

LCP also highlighted that in a High Warming Scenario, the Group faces significant physical risks from climate change in the medium to long-term. The Trustee noted that given the uncertainty over the full extent of the financial impact of these types of risk, it is plausible that the cost to the Group in the medium-long term could materially impact its financial profile and ability to support the Plan.

Following the buy-in with Aviva, the risks to the Plan's funding position that the Employers (and Group) have to support have substantially reduced (with most of the risk transferred to Aviva). Given the Trustee's monitoring of the Group and Aviva the Trustee considers that in practice it is unlikely that the adverse climate scenarios identified could reach a scale whereby the covenant is unable to underwrite the Plan's funding and investment risks.

Conclusions

The Trustee notes that there are a significant range of potential outcomes when it comes to climate change. The DB Section is projected to be in a strong funding position under each scenario modelled. However, while three scenarios have been modelled, these represent only a subset of potential outcomes and actual experience could be quite different.

The Trustee's covenant analysis and monitoring concluded that the Plan's support from its Employers and the Group is unlikely to be materially impacted in the Net Zero Financial Crisis scenario but could be materially impacted by the High-Warming Scenario over the medium-long term. However, given the Plan's funding resilience to each scenario modelled, the climate risk exposure from an employer covenant perspective is low.

Furthermore, the buy-in has effectively transferred the majority of the Plan's exposure to climate risk to Aviva. The UK insurance regime has strong protections in place which means it is likely that Aviva will continue to pay the contracted benefits in full.

3 RISK MANAGEMENT

The Trustee has implemented a number of processes and tools for identifying, assessing and managing climate-related risks and opportunities for the Plan. It has also embedded climate change risk into the Section's business-as-usual operations. Examples of some of the risk management processes established are set out below.

4. Process for identifying and assessing climate-related risks

- **Climate Governance Statement to outline the nature and frequency of climate-related monitoring.** In the statement, the Trustee highlights how regularly the Plan undertakes climate scenario analysis and a high-level review of investment managers' responsible investment and ESG credentials. This statement was reviewed during the Plan Year and only one amendment was made to add wording on the Plan's bulk annuity policy provider (as discussed in Section 1).
- **Receiving climate related training to understand how climate-related risks might affect pension schemes and their investments.** For example, training on manager responsible investment practices following LCP's RI Survey;
- **The Plan's risk register contains climate-related risks**. The Trustee made updates to the climate-related risks in March 2025;
- **Engaging with investment managers regularly on their approach to climate change if the results of its assessments (eg their climate metrics) are less than satisfactory.** In February 2025, the Trustee used the output of the review to drive engagements with managers;
- **Integrating climate risks into the Trustee's covenant monitoring framework - including monitoring of the Company's climate exposure and management, as well as Aviva's financial strength.** Climate risk has been embedded into the annual covenant monitoring undertaken by the Trustee.
- **Ensuring the Trustee's investment adviser's objectives include consideration of climate risks** (the objective is to "Help the Trustee implement an investment strategy that integrates its policy on ESG (including climate change) and stewardship"); and
- **Reviewing the DB Section's investment adviser's assessment of the nature and effectiveness of managers' approaches to climate change and other ESG considerations** as part of the Trustee's selection and ongoing review of fund managers.

- The Trustee also receives **quarterly market update documents from its investment adviser** which include relevant updates on topical ESG issues including climate change.

5. Tools for identifying and assessing climate-related risks

Review of managers' approaches to climate risks and opportunities

In February 2025, the Trustee reviewed the DB Section's investment managers' climate approaches, with the help of its investment adviser, LCP. The assessment was based on LCP's 2024 Responsible Investment Survey. The investment managers are asked a series of product-specific questions on their responsible investment practices. To compare scores across all products / funds, LCP use the same structured approach across all asset classes. Factors assessed included:

- approach to environmental, social and governance (ESG) issues
- climate approaches, including net zero;
- engaging with companies;
- policy advocacy and systemic stewardship; and
- voting (where applicable).

Based on the February 2025 review, the managers attained a mix of of "green / strong " and some managers attained "amber / moderate" or "red / weak" ratings. In particular, Legal & General were particularly strong at incorporating climate considerations into their risk management and engagement processes. The private debt, real estate debt and opportunistic credit managers' climate approaches were on the whole weaker.

The Trustee used the output of the survey to drive climate related conversations with their investment managers during the Plan Year. For example, the Trustee has asked SVP, ICG and Bentall GreenOak to work towards net zero emissions for all assets under management and to formulate a clear transition plan.

The Trustee will continue to review the Section's climate approaches on an annual basis.

The role of stewardship in managing climate related risks and opportunities

The Trustee expects the DB Section's investment managers to engage with investee companies on climate-related (and other) matters. The Trustee generally believes that engaging with companies is more effective at encouraging change than simply selling the Plan's investments in those companies. Stewardship is therefore used to help manage climate-related risks.

Voting and engagement activities are delegated to the individual investment managers. Each manager has its own ESG policy, which includes assessment of climate-related risks and policies on voting on climate-related resolutions.

In February 2023, the Trustee selected priority stewardship themes to provide a focus for the monitoring of investment managers' voting and engagement activities. The Trustee reviews these annually and will update them if appropriate. **The Trustee's chosen stewardship priorities are climate change, human rights and business ethics.** The Trustee has selected these priorities as key market-wide risks and areas where it believes that good stewardship and engagement can improve long-term financial outcomes for the Plan's members. During the Plan year these priorities have not been amended.

The Trustee has communicated these priorities to the Section's investment managers in March 2023 who have acknowledged the Trustee's expectations in these areas. The Trustee will use these priorities to help focus engagement in the area of stewardship moving forwards.

More information on the Trustee's stewardship activities can be found in its annual Implementation Statement.

More information on the Trustee's stewardship activities can be found in its annual Implementation Statement.

The role of investment monitoring in managing climate related risks and opportunities

The Trustee has integrated climate change into the DB Section's risk management processes, including the risk register, covenant monitoring and investment monitoring.

In addition to the review of managers' climate approaches, the Trustee reviews LCP's responsible investment scores for the Section's managers and funds, which consider climate factors, periodically and whenever a new fund is considered.

The Trustee periodically meets with its investment managers at its Trustee meetings. When invited, the Trustee discusses climate change with the managers to increase its understanding of the Plan's climate related risks and challenge the adequacy of the steps being taken to manage them.

The role of the Risk Register in managing climate related risks and opportunities

The Trustee maintains a risk register covering the wide range of risks run in the DB Section. Some of the risk controls included in the risk register for the DB Section include:

- Consideration of top-down climate scenario analysis to consider potential impact of climate risk on liabilities as well as assets
- Regular monitoring of climate-related metrics for measuring and assessing climate risk
- Regular engagement with managers on their climate approach
- Managers incorporate climate risks as part of their investment process

In March 2025, the Trustee updated the register in relation to its consideration of climate risks and opportunities in light of the recent buy-in with Aviva.

The role of covenant assessment in managing climate related risks and opportunities

Climate-related exposures could have a positive or negative impact on the strength of the sponsor covenant.

Following the Trustee's more detailed review of the sponsoring employer's covenant exposure to climate risks and opportunities under different climate scenarios, several key metrics were identified which the Trustee monitors on an on-going basis as part of the Plan's covenant

4 METRICS AND TARGETS

1. Metrics

This section explains the metrics and targets the Trustee has set to help measure, manage and disclose climate change impact.

Overview of the climate-related metrics and results

The Trustee has chosen four main climate-related metrics to help it monitor climate-related risks and opportunities to the Plan. These are listed below and reported for the DB Section (as far as the Trustee was able to obtain the data). The results below are based on 31 December 2024 information.

METRIC	WHAT IS MONITORED	WHAT IS IT?	RESULT FOR THE PLAN (CHANGE FROM 31 DECEMBER 2022 NOTED IN BRACKETS)
Absolute emissions metric.	**Greenhouse gas emissions.**	Total greenhouse gas (GHG) emissions associated with the Plan's assets.	*See individual portfolio output, aggregation is not suitable.*
Emissions intensity metric.	**Carbon footprint.**	The GHG emissions per £m invested by the Plan (the "carbon footprint"). Reported for scope 1,2 & 3 emissions.	**117** (+11) tonnes CO2e per £m invested
Portfolio alignment metric.	**% of assets with "science-based targets" (SBTs)**	% of portfolio with independently assessed carbon reduction plans (SBTi-accredited target or equivalent)	**~24%** (-24%) of the Plan's overall investments have SBTs
Additional climate change metric.	**Data quality.**	% of portfolio emissions which are reported by companies **vs** estimated by manager **vs** unavailable.	**39%** (+6%) reported / **32%** (+16%) estimated / **29%** (-22%) unavailable for scope 1 & 2 emissions (as % of total assets excl. LDI and cash)
Sponsor metrics.	Separately from the investment portfolio, metrics are collected on the Group and monitored as part of the wider covenant monitoring approach.		

Further detail on the methodology for each metric

METRIC	HIGH-LEVEL METHODOLOGY
Absolute emissions: Total greenhouse gas emissions (tonnes Co_2e)	The sum of each company's most recent reported or estimated greenhouse gas emissions attributable to the Plan's investment in the company, where data is available. Emissions are attributed evenly across equity and debt investors. Reported in tonnes of CO2 equivalent. This methodology was chosen because it is in line with the statutory guidance. See Appendix 1 for further detail on the definition of scope 1, 2 and 3 emissions.
Emissions intensity: Carbon footprint (tonnes Co_2e per £m invested)	The total greenhouse gas emissions described above, divided by the value of the invested portfolio in £m, adjusted for data availability. Emissions are attributed evenly across equity and debt investors. Reported in tonnes of CO2 equivalent per £1m invested. This methodology was chosen because it is in line with the statutory guidance.
Portfolio alignment: Science-based targets (SBTi or equivalent: % of assets with "science based targets")	Science-based targets are targets to reduce greenhouse gas emissions that are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement of limiting global average temperature rises to 1.5°C. The Science-Based Targets initiative (SBTi) is an organisation that sets standards and provides validation for science-based targets set by companies and investors. This metric measures the proportion of the portfolio by weight of holdings with science-based targets, demonstrated by a target validated by the SBTi or equivalent. The Trustee chose this "binary target" measure because it is the most robust of the various portfolio alignment metrics available.
Additional climate change metric: Data quality	The proportion of the portfolio for which greenhouse gas emissions data is reported, estimated or unavailable. "Reported" emissions are reported by the emitting company whereas estimated emissions are calculated by the Plan's investment managers. This approach was chosen because it is in line with the statutory guidance.

Further information about the methodologies used to calculate the metrics, including the asset allocation, key judgements, assumptions, data inputs and treatment of data gaps is provided in **Appendix 2**. The data has been calculated using portfolio holdings and climate data as at 31 December 2024, unless otherwise stated. The Trustee sought to obtain data on all of the Plan's invested assets, however for some funds the data was unavailable. In particular for Scope 3 emissions data was only available for the LDI mandate.

Detailed results – scope 1 & 2 emissions

Portfolio emissions coverage key	<75%	75%-90%	>90%

FUND	ASSETS AT 31 DECEMBER 2024	DATA COVERAGE (REPORTED + ESTIMATED DATA)	EMISSIONS OF COVERED ASSETS (TONNES CO_2E)[1]	CARBON FOOTPRINT (TONNES CO_2E PER £M INVESTED)	PORTFOLIO ALIGNMENT (% SBT)	DATA QUALITY (% REPORTED/ ESTIMATED/ UNAVAILABLE)	SOURCE
LDI – L&G[2]	£19m / 5%	**100%**	4,152	170	100	100/0/0	LCP calculation
Real Estate Debt – BGO II	£8m / 2%	This fund is unable to provide Scope 1 & 2 emissions and SBT data				0/100/0	Manager
Private Debt – Longbow Fund V	£102m / 29%	**100%**	4,680	46	Not available	0/100/0	Manager
Private Debt – Longbow Fund IV	£6m / 2%	**100%**	229	36	Not available	0/100/0	Manager
Opportunistic Credit – SVP	£70m / 19%	**69%**	20,959	434	8	69/0/31	Manager
Opportunistic Credit – Alcentra	£103m / 29%	**72%**	2,122	29	60	72/0/28	Manager
Private Debt – ICG Europe Fund VI	£10m / 3%	**100%**	73	7	Not available	100/0/0	Manager
Private Debt – ICG Europe Fund V	£4m / 1%	This fund is unable to provide Scope 1 & 2 emissions and SBT data				0/100/0	Manager
Transition accounts and cash - NTRS	£35m / 10%	We have excluded the portfolio due to the nature of the assets (ie cash and not invested in a fund).					
Total Plan (excl CFM loan and buy-in)[3]	£357m / 100%	**68% (ex LDI)**	-	117 (ex LDI)	24%	39/32/29 (ex LDI)	LCP estimate

Footnotes:
Data as at 31 December 2024 unless otherwise stated, see Appendix 1 for further detail. Columns / rows may not sum due to rounding.
[1]Figures relate only to the assets for which data is available, ie Emissions = portfolio value, multiplied by carbon footprint, multiplied by coverage (for the Plan's assets not the whole pooled fund).
[2]Emissions for the LDI portfolio are based on the exposure to gilts in the portfolio of £26m (ie including the effect of leverage). See Appendix 2 on our methodology for calculating LDI emissions.
[3]Aggregate Plan carbon footprint relate to 68% of Plan assets (ie all non LDI assets with coverage). Total portfolio alignment is a % of total Plan assets.

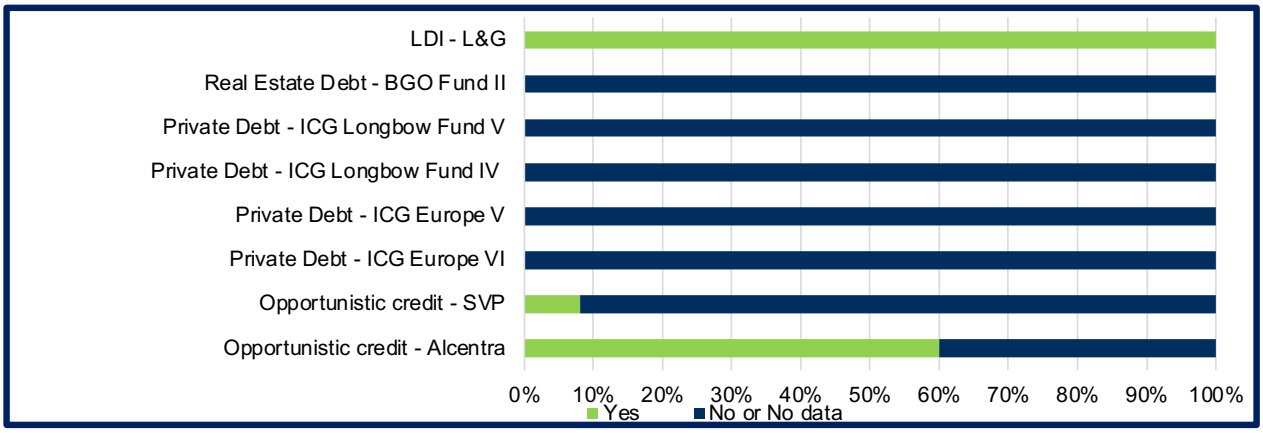
Detailed results – Scope 3 emissions

Portfolio emissions coverage key	*<75%*	*75%-90%*	*>90%*			
FUND	***ASSETS AT 31 DECEMBER 2024***	***DATA COVERAGE***	***EMISSIONS OF COVERED ASSETS (TONNES CO2E)[1]***	***CARBON FOOT-PRINT (TONNES CO2E PER £M)***	***DATA QUALITY (% REPORTED/ ESTIMATED/ UNAVAILABLE)***	***SOURCE***
LDI – L&G[2]	£19m / 5%	**100%**	3,332	136	100/0/0	LCP calculation
Private Debt – ICG Europe Fund VI	£10m / 3%	**52%**	20	2	52/0/48	Manager
Real Estate Debt (BGO II), Opportunistic Credit (SVP, Alcentra), Private Debt (Europe V, Longbow IV, Longbow V)	£293m / 82%	These funds are unable to provide Scope 3 emissions data			0/0/100	Managers
Transition accounts and cash - NTRS	£35m / 10%	We have excluded the portfolio due to the nature of the assets (ie cash and not invested in a fund)				
Total Plan (excl CFM loan and buy-in)[3]	£357m / 100%	1% (ex LDI)	-	2 (ex LDI)	2/0/98 (ex LDI)	LCP estimate

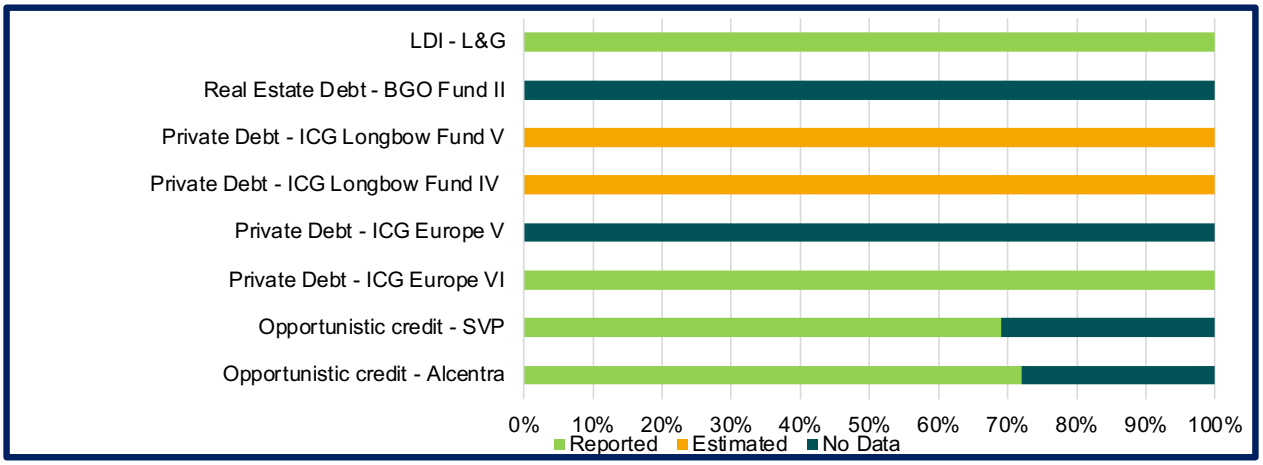
Footnotes:
Data as at 31 December 2024 unless otherwise stated, see Appendix 1 for further detail. Columns / rows may not sum due to rounding.
[1]Figures relate only to the assets for which data is available, ie Emissions = portfolio value * carbon footprint * coverage, for the Plan's assets not the whole pooled fund.
[2]Emissions for the LDI portfolio are based on the exposure to gilts in the portfolio of £26m (ie including the effect of leverage). See Appendix 2 on our methodology for calculating LDI emissions.
[3]Aggregate Plan carbon footprint related to 1% of Plan assets (ie non-LDI assets with coverage).

Breakdown of data quality and portfolio alignment data

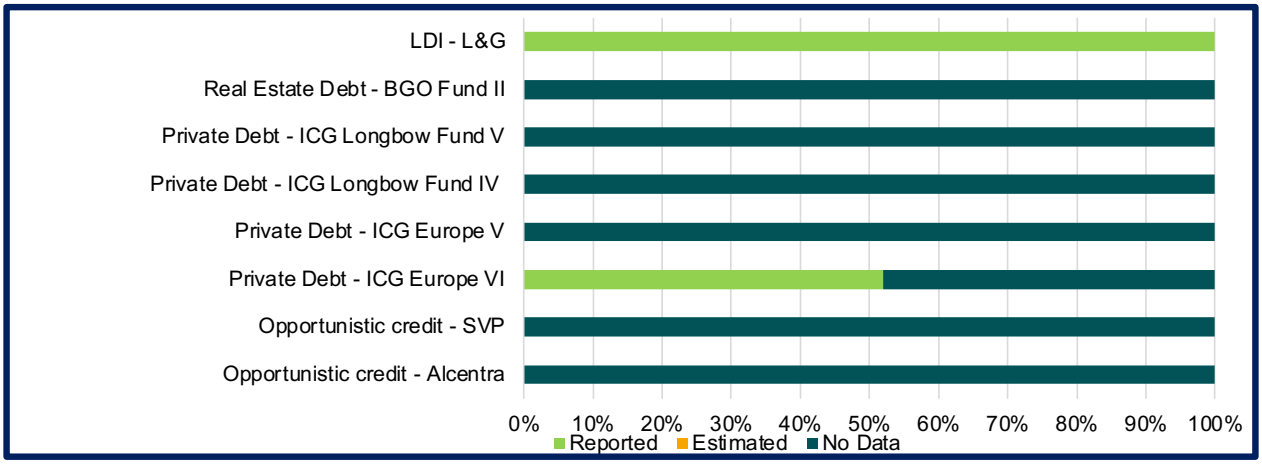
Portfolio alignment (ie% of SBT or equivalent companies within the portfolio)



Scope 1 and 2 emissions data quality



Scope 3 emissions data quality



2. Target

The Plan's climate target is **to have (at least) 50% "reported" and 0% "not available" scope 1 and 2 greenhouse gas emissions data by 2028 (as % of total assets excl. LDI and cash), with the balance being "estimated".**

The above target was selected by the Trustee for the following reasons:

- Following completion of the buy-in transaction in 2024, the previous target is no longer appropriate as the applicable portfolios (ie the corporate bond mandates) are no longer held, therefore the Trustee agreed on this new target.
- The new target is based on the 'Data quality' metric which measures the proportion of the portfolio for which greenhouse gas emissions data is reported, estimated or unavailable. The Trustee believes improving data quality in this way is important as it allows it to better understand the Plan's environmental impact in the first place, and to consider actions in response.
- The remaining illiquid portfolio constitutes the majority of Plan assets post-buy in, so this target has scope to make the most impactful changes to these mandates since they have typically had the lowest emissions data availability.

Results

As at 31 December 2024, the results for your data quality metric were 39% reported / 32% estimated / 29% unavailable (as % of total assets excl. LDI and cash). This represents an improvement from the 31 December 2023 results.

In March 2025, the Trustee reviewed the previous portfolio alignment target, and set a new target, based on the data quality metric, that is more appropriate for the Plan following the completion of the full buy-in. The new target is to have (at least) 50% "reported" and 0% "not available" **scope 1 and 2 greenhouse gas emissions** data by 2028 (as % of total assets excl. LDI and cash), with the balance being "estimated".

We note that the majority of the Plan's assets (broadly 80%) are now held in a buy-in policy, therefore the majority of the Plan's climate risks and opportunities have been passed to the insurer.

The following steps are being taken to achieve the target

The Trustee, with help from its investment consultant, has communicated the new target to the investment managers.

The Trustee will review progress towards the target each year and consider whether additional steps are needed to increase their chance of meeting the target.

The Trustee has engaged with the managers that were not able to provide the requested data and encourage them to improve their data going forward.

Investment managers are periodically invited to present at Trustee meetings as part of the existing monitoring process. When meeting with the DB Section's investment managers, the Trustee will ask the manager how they expect to improve the coverage of their data.

The Trustee's investment adviser encourages managers to support the goal of net zero emissions by 2050 or earlier and has published its expectations for investment managers in relation to net zero. The investment adviser continues to engage with managers on this topic and will encourage them to use their influence with portfolio companies.

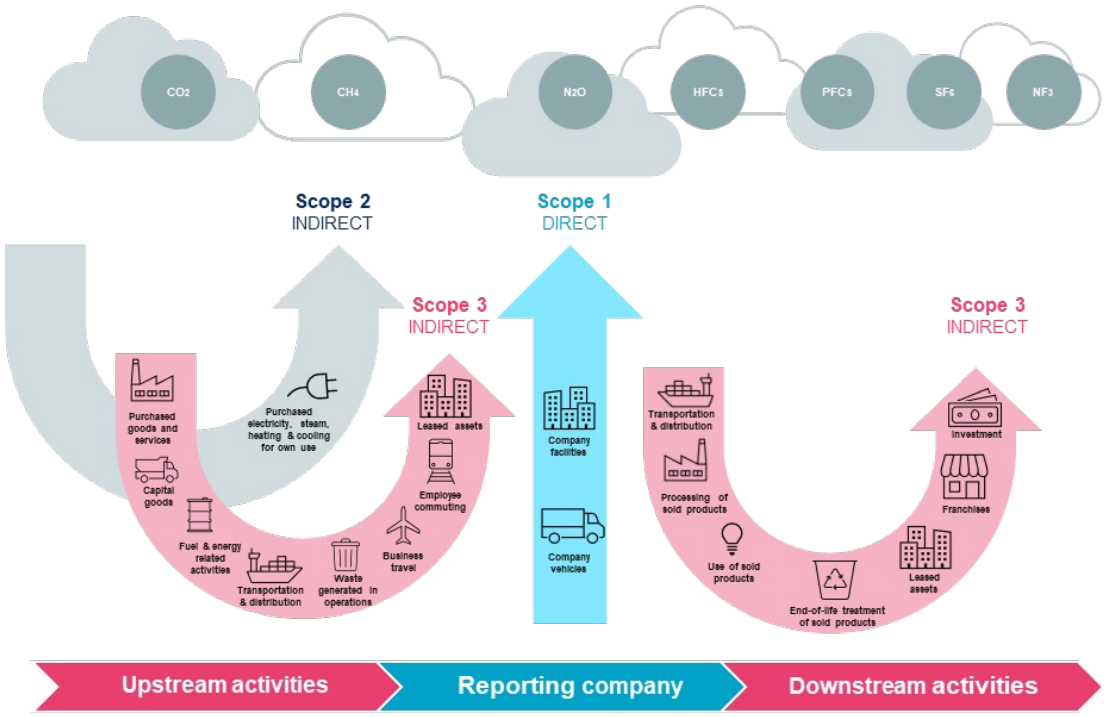
APPENDIX 1

GREENHOUSE GAS EMISSIONS EXPLAINED

Within the 'metrics and targets' section of the report, the emissions metrics relate to seven greenhouse gases – carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF6) and nitrogen trifluoride (NF3). The figures are shown as "CO2 equivalent" (CO2e) which is the amount of carbon dioxide that would be equivalent to the excess energy being stored by, and heating, the earth due to the presence in the atmosphere of these seven greenhouse gases.

The metrics related to greenhouse gas emissions are split into the following three categories: Scope 1, 2 and 3. These categories describe how directly the emissions are related to an entity's operations. Scope 3 emissions often form the largest share of an entity's total emissions, but are also the ones that the entity has least control over.

- **Scope 1** greenhouse gas emissions are all direct emissions from the activities of an entity or activities under its control.
- **Scope 2** greenhouse gas emissions are indirect emissions from energy purchased and used by an entity.
- **Scope 3** greenhouse gas emissions are all indirect emissions from activities of the entity, other than scope 2 emissions, which occur from sources that the entity does not directly control.

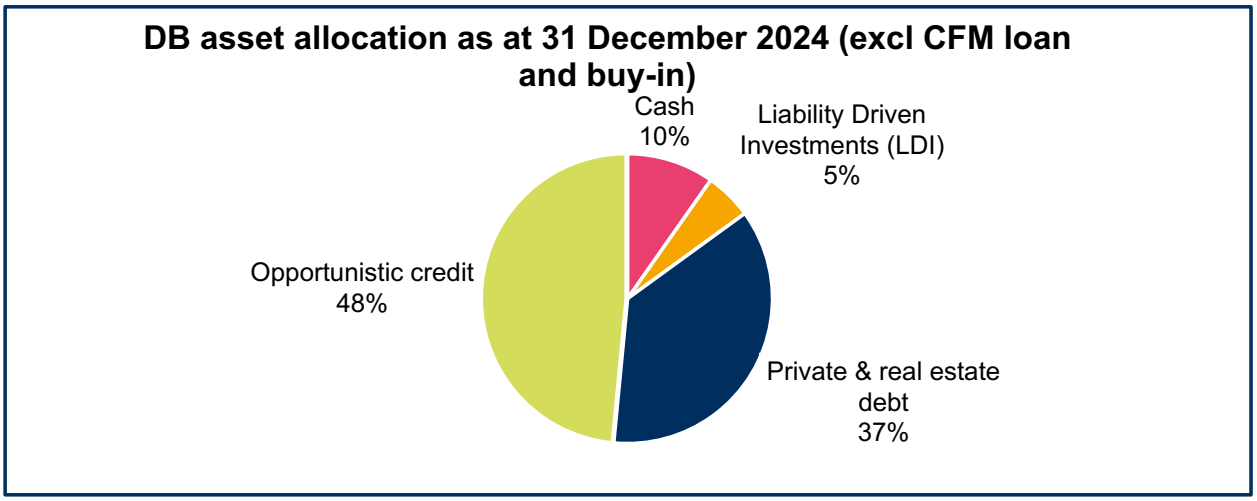


Source: GHG Protocol

APPENDIX 2

FURTHER INFORMATION ON CLIMATE-RELATED METRICS

The climate related metrics were calculated based on the asset allocation as at 31 December 2024, as shown in the chart below.



The emissions calculation methodology may differ between managers, particularly where data is estimated by the manager. We note the following general points:

- Where data is not disclosed by the underlying company / asset, estimation/models are used by the investment managers to fill gaps.
- The assumptions made by the managers could impact significantly on the results.
- We have not included information provided by investment managers covering different metrics to those requested (eg green revenues).
- LCP has estimated total carbon emissions for portfolios (based on carbon footprint multiplied by the £ amount invested, accounting for data coverage) where this information was not provided by the investment managers or where the information was not consistent.

- All data used in calculating your metrics was as at 31 December 2024, unless otherwise stated. In particular:

- SVP emissions data is as at 31 December 2023.
- ICG Longbow Fund IV and V emissions data is as at 30 September 2024.
- ICG Europe Fund VI data is as at 31 December 2023.

- For Metric 1, a different emissions measure is used for gilts instead of carbon footprint, so emissions cannot be compared with the emissions figures for other asset classes, therefore aggregation of absolute emissions metrics is not suitable.
- Metric 2 does not include the LDI portfolio due to the incomparability of the gilt emission figures. It also excludes transition and cash accounts. It takes into account the proportion of managers who report emissions, as well as the proportion of each portfolio covered in the analysis.
- In Metric 4, any transition accounts, in-flight redemptions and cash are counted as 'unavailable' for the data quality metric.

UK government bonds and LDI

GHG emissions for government bonds (gilts) are calculated on a different basis from the other asset classes, so cannot be compared with the other emissions figures shown.

The emissions figures were calculated by the Trustee's investment adviser using publicly available data sources. As suggested in the statutory guidance, Scope 1+2 emissions have been interpreted as the production-based emissions of the country. Scope 3 emissions have been interpreted as the emissions embodied in goods and services imported by the country and consumed within the country (rather than re-exported).

In line with guidance from the Partnership for Carbon Accounting Financials (PCAF) issued in December 2022, emissions intensity has been calculated as:

$$\frac{UK\ GHG\ emissions}{PPP-adjusted\ GDP\ for\ the\ UK}$$

GHG emissions have then been calculated as:

$$Emissions\ intensity\ x\ value\ of\ the\ Scheme's\ investment\ in\ gilts.$$

For the LDI mandate, derivatives have been treated as an investment in an equivalent gilt. Greenhouse gas emissions have been calculated for the gilt exposure (including the repo loan amount) but not the swap positions. This is in line with the Trustee's understanding of the typical interpretation of the DWP guidance by investment managers and consultancies as not requiring estimation of emissions for swap exposures at this time.

APPENDIX 3

CLIMATE SCENARIO ANALYSIS: FURTHER DETAIL ON THE MODELLING APPROACH

Summary table of scenarios

SCENARIO	DESCRIPTION	WHY THE TRUSTEE CHOSE IT
High warning	Continuation of low carbon policies in force* and current technological trends. The world fails to meet the Paris Agreement goals, and temperatures rise significantly.	To explore what could happen to the Plan's finances if carbon emissions continue at current levels and this results in severe physical risks from changes in the global climate that disrupt economic activity.
Limited Action	Policymakers implement limited new climate policies and fall short of meeting the Paris Agreement goals.	To see how the Plan's finances could play out if limited climate action is taken, meaning that temperature rises exceed 2°C by 2100 – resulting in significant physical risks – and policy changes result in some transition risks as financial markets adjust.
Net zero financial crisis	Global net zero carbon emissions achieved by 2050; rapid and effective climate action (including using carbon capture and storage), but financial markets are initially slow to react and then react abruptly	To look at the risks and opportunities for the Plan if global net zero carbon emissions is achieved by 2050, but financial markets are volatile as they adjust to a low carbon economy.

Further detail on the asset and liability bases used at the time of the original climate modelling can be found in the Plan's 2024 Climate Change Report.

Limitations of climate related modelling – Model due diligence and Modelling limitations

LCP's review of the Ortec Finance and Cambridge Econometrics model

- When selecting Ortec Finance as LCP's climate scenario partner, LCP did the following to review their financial model:

1. Held meetings to discuss the modelling and the initial results provided by Ortec Finance.
2. Reviewed documentation describing different aspects of the modelling.
3. Held follow-up meetings to discuss questions arising from the documentation review.

- Following this review process, LCP decided to adjust the scenario outputs provided by Ortec Finance so they are better aligned to LCP's financial assumptions. Ortec Finance has given its agreement to LCP adjustment methodology.

- The scenarios illustrated should not be regarded as forecasts. They are intended to illustrate possible future outcomes to help stakeholders assess the risks posed to pension schemes by climate change.
- LCP note that uncertainty in climate modelling is inevitable. In aggregate, it is quite likely that Ortec Finance's modelling (like most modelling of this type) underestimates the potential impacts of climate-related risks, especially for the High Warming scenario. More detail on the model limitations is given in this sub-section.
- Ortec Finance's modelling does aim to partially mitigate potential underestimates by selecting more prudent parameters when modelling the impacts of physical climate risk. For example, for the assumption that translates cumulative emissions to temperature outcomes, Ortec Finance has chosen one towards the top of the likely range.

Limitations of the climate modelling and derivation of economic impacts

- Material uncertainties in climate modelling are inevitable. For example, there is uncertainty about the physical changes in the climate that will emerge as a result of greenhouse gases ("GHG") that have already been emitted (ie the locked-in effects of climate inertia) and how the climate will respond to future rises in GHG concentrations. There is also huge uncertainty about the future trajectory of GHG, the actions that will give rise to that trajectory, and the economic effects of those actions.
- In aggregate, it is quite likely that Ortec Finance's modelling is biased to under-estimate the potential impacts of climate-related risks, especially for the High Warming scenario. This is typical of climate-economic modelling.
- The scenarios are intended to be illustrative, not "worst case". Hence they do not indicate the potential seriousness of tail risks. Moreover, as described elsewhere, LCP is using median values from Ortec Finance's stochastic modelling outputs. Ortec Finance considers three scenarios out of infinitely many that are possible. Alternatives include different long-term temperature outcomes, different combinations of policy/technological/behavioural actions to achieve similar long-term temperature outcomes to those we are modelling, and different financial market reactions to the same policy/technological/behavioural actions that we are modelling. Plausible scenarios LCP have not considered include:

  - Disorderly transition where the disorder arises from delayed and/or uncoordinated policy action, unexpected technological breakthroughs, and/or a sudden shift in consumer sentiment (not just a disorderly financial market reaction).
  - A 'worst of both worlds' scenario. For example, where policy action is too late to prevent severe physical risks but when eventually introduced it is rapid and disorderly causing significant additional transitional risks.

- Climate modelling is based on CO2 emissions from energy use only. A climate sensitivity coefficient is used to implicitly include other GHGs (ie CO2 emissions from agriculture or changes in land use and gases other than CO2).
- Climate tipping points, such as irreversible loss of the Greenland ice sheet, are not modelled.
- The supply of natural resources (eg water, forest) is assumed to be equal to demand, eg only demand for energy is modelled, not supply.
- The modelling of gradual physical risks does not explicitly include changing rainfall patterns (which will affect agriculture and food security). These are indirectly captured via increasing temperature and the impact of that on agricultural productivity, although this seems unlikely to fully capture the effects.
- No allowance is made for knock-on effects, such as climate change related migration and conflicts.
- No allowance is made for the potential for food or other resource shortages which may lead to both lower GDP and higher inflation.

Limitations of the derivation of financial market impacts from economic impacts

- There is particular uncertainty about how climate change might affect interest rates and inflation. Cambridge Econometrics assumes inflation and interest rates fall broadly together in the climate scenarios, which means that the real interest rate does not change that much. Plausible narratives can be constructed in which interest rates fall but inflation is stable or even rises. Such scenarios could lead to significant increases in the value of liabilities.
- Ortec Finance models climate impacts on financial markets using the GDP and inflation impacts from Cambridge Econometrics' macro-econometric modelling and historically-observed relationships between these macro variables and the financial market parameters. GDP, inflation and sector Gross Value Added are the translation mechanisms from the macro econometric model to the stochastic financial scenario model. Other potential translation mechanisms are not modelled in the stochastic financial model explicitly but are embedded in the climate-informed macro variables (for instance, carbon-price impacts inflation in the Cambridge Econometrics modelling, and inflation impacts interest rates in the Ortec Finance stochastic financial model).
- There is a great deal of uncertainty in the timing of market responses to climate change. Ortec Finance's model assumes the biggest market movements under the High Warming scenario occur after 2030, which would mean that many DB schemes would avoid the worst impacts. However, the market movements could occur a lot earlier.
- Financial market volatility might increase as the physical and transition impacts of climate change unfold, particularly if this happens in an unpredictable manner. The modelling does not make any allowance for this, except in the Net Zero Financial Crisis during 2025 while pricing-in of climate-related risks takes place.

General limitations of the modelling – more details

Adjustment of Ortec Finance scenarios by LCP

- Ortec Finance's climate-uninformed view of financial markets is different in a number of ways to LCP's central estimate. Therefore LCP's central estimate has been adjusted to approximate a climate-uninformed base case as a starting point for comparison. Ortec Finance's climate-aware scenarios have then been adjusted to this climate-uninformed base case, so that they can be used alongside other LCP modelling in a meaningful way.
- Adjusting Ortec Finance's climate scenarios in this way can produce inconsistencies in the resulting scenarios. Interest rates, credit spreads, and consistency of fixed income returns are areas that are particularly at risk of this. However, we have assessed these risks and are comfortable that they do not make a material difference to the modelling output.

Features not specifically modelled or only partly modelled

- Ortec Finance's modelling does not incorporate any changes to the definitions of UK inflation measures, for example in the gap between RPI and CPI measures. The effects of any changes are expected to be very similar under each scenario, so there would be minimal impact on the gap between the climate-aware and the climate-uninformed scenarios.
- The modelling at 31 December 2022 makes an allowance for the impacts of the COVID-19 pandemic. Adjustments have been made to the emissions history such that emissions are modelled to continue to grow, despite the dip during the pandemic. This reflects what has been seen since the pandemic. The impacts of the pandemic are incorporated into both the baseline and scenarios in the same way; there are no short-run differences between the scenarios driven by COVID-19.
- As the effects of the pandemic continue to unfold, further adjustments may be required to the modelling; this will be kept under review and considered for the next update as at 31 December 2023.

- The modelling as at 31 December 2022 assumes that there is no difference between the climate-uninformed baseline and the scenario outputs resulting from the currently-high level of UK inflation, nor from the ongoing energy crisis. This will be kept under review and considered for the next update as at 31 December 2023.
- No explicit allowance has been made in the climate shocks modelled for the comparative impacts on markets or climate policy from the Russian-Ukraine war. There will be an indirect impact as a result of how the conflict has affected market conditions as at 31 December 2022, for example resulting in high inflation.
- In the High Warming scenario, the only low carbon policies allowed for are those in force (based on the International Energy Agency's World Energy Outlook 2019 – Current Policies Scenario). For example, the US Inflation Reduction Act is not allowed for in the High Warming scenario, but it is in the Limited Action scenario.
- The future pricing of buy-ins and buy-outs depends on a wide range of factors, beyond changes due to climate change-related risks. Any commentary or discussion with you about buy-in and buy-out pricing in each of the climate scenarios considered is on the basis that other factors that affect pricing (such as changes in longevity, the availability of longevity reinsurance, the appetite of insurers to write business and for providers of capital to support new business, and the level of competition and demand) are the same in each scenario. The analysis of the impact of climate change-related risks on buy-in pricing is therefore focused on the impact of climate change on the value and returns available on assets which insurers are likely to hold, along with the potential for changes to capital reserving requirements to cover the associated climate change-related risks.

General limitations of financial modelling

- Models in general are relatively simplistic approximations of real-world behaviour that are not able to capture every possible real-life permutation. The use of any model of future economic and investment experience is subject to risks arising from the underlying uncertainties inherent in predicting the future. Risk models are only models, even if complex and/or powerful.
- The random variation in future inflation and investment returns over a short or medium period of time may result in experience that is significantly different to the expected long term average experience over much longer time periods. In short, circumstances that are (reasonably) assumed by a model to be very unlikely to occur may, nevertheless, occur.
- The conclusions of the modelling process will depend on the structure of the underlying model (particularly the relationships between different economic and investment indicators) and on the detailed parameterisation of the model.
- The results of the modelling depends crucially on the methodology and assumptions used. Using different models or using different assumptions in the same model can give rise to very different results.
- The results of the modelling should be regarded as illustrative. Given the extent of uncertainty in climate modelling, and given that the scenarios are not typically mutually exclusive, it is not advisable to attach probabilities to scenarios.
- The model is best used to compare potential outcomes between scenarios.
- The modelling does not capture all dynamic changes to circumstances.
- The model does not take account of any events after the date of the most recent Ortec Finance model update, in this case 31 December 2022.

APPENDIX 4

GLOSSARY OF KEY TERMS USED IN THIS REPORT

Actuarial valuation – an actuarial valuation is an accounting exercise performed to estimate future liabilities arising out of benefits that are payable to members of a DB pension scheme, typically once every three years. In the actuarial valuation exercise, a liability payout at a future date is estimated using various assumptions such as discounting rate and salary growth rate.

Alignment – in a climate change context, alignment is the process of bringing greenhouse gas emissions in line with 1.5°C temperature rise targets. It can be applied to individual companies, investment portfolios and the global economy.

Asset class – a group of securities which exhibit broadly similar characteristics. Examples include equities and bonds.

Bond – a bond is a security issued to investors by companies, governments and other organisations. In exchange for an upfront payment, an investor normally expects to receive a series of regular interest payments plus, at maturity, a final lump sum payment, typically equal to the amount invested originally, or this amount increased by reference to some index.

Bulk annuity contract (aka buy-in or buy-out) – DB pension scheme trustees may choose to "buy-in" some of their scheme's expected future benefit payments by purchasing a bulk annuity contract (i.e. one covering many individuals) with an insurance company. This allows the trustees to reduce their scheme's risk by acquiring an asset (the annuity contract) whose cash flows are designed to meet i.e. "match" a specified set of benefit payments under the pension scheme. The contract is held by the trustees and responsibility for the benefit payments remains with the trustees. Common uses of buy-in arrangements have been to cover the payments associated with current pensioners or a subset of those members. Contracts to meet payments to members who are yet to become pensioners can also be purchased. DB pension scheme trustees may choose to "buy-out" all of their scheme's expected future benefit payments by purchasing a bulk annuity contract from an insurance company. The insurer then becomes responsible for meeting pension benefits due to all scheme members (effected ultimately by allocating to each scheme member an individual annuity contract). Following a full buy-out, (i.e. one covering all scheme members) and having discharged all of the trustees' liabilities, the pension scheme would normally be wound up.

Carbon emissions - These refer to the release of carbon dioxide, or greenhouse gases more generally, into the atmosphere, for example from the burning of fossil fuels for power or transport purposes.

Carbon footprint – In an investment context, the total carbon dioxide or greenhouse gas emissions generated per amount invested (eg in £m) by an investment fund. Related definitions are used to apply the term to organisations, countries and individuals

Climate change adaptation – steps taken to adapt to the physical effects of climate change such as improving flood defences and installing air conditioning.

Climate change mitigation – steps taken to limit climate change by reducing greenhouse gas emissions, for example by shifting to renewable sources of energy – such as solar and wind – and by using less energy and using it more efficiently.

Covenant – the ability and willingness of the sponsor to make up any shortfall between a DB scheme's assets and the agreed funding target.

Credit – long-term debt issued by a company, also known as corporate bonds. Corporate bonds carry different levels of credit risk which is indicated by their rating and credit spread.

Defined Benefit (DB) – a pension scheme in which the primary pension benefit payable to a member is based on a defined formula, frequently linked to salary. The sponsor bears the risk that the value of the investments held under the scheme fall short of the amount needed to meet the benefits.

Debt – money borrowed by a company or government which normally must be repaid at some specified point in the future.

Environmental, social and governance (ESG) – an umbrella term that encompasses a wide range of factors that may have been overlooked in traditional investment approaches. Environmental considerations might include physical resource management, pollution prevention and greenhouse gas emissions. Social factors are likely to include workplace diversity, health and safety, and the company's impact on its local community. Governance-related matters include executive compensation, board accountability and shareholder rights.

Equity – through purchase on either the primary market or the secondary market, company equity gives the purchaser part-ownership in that company and hence a share of its profits, typically received through the payment of dividends. Equity also entitles the holder to vote at shareholder meetings. Note that equity holders are entitled to dividends only after other obligations, such as interest payments to debt holders, are first paid. Unlike debt, equity is not normally contractually repayable.

Ethical investment – an approach that selects investments on the basis of an agreed set of environmental, social and governance (ESG) criteria that are motivated by ethical considerations. These can be positive – eg choosing companies involved in water conservation or negative – eg not choosing companies involved in the arms trade.

Fiduciary obligations – a legal obligation of one party (a fiduciary) to act in the best interest of others. Fiduciaries are people or legal entities that are entrusted with the care of money or property on behalf of others. They include pension scheme trustees.

Fossil fuels – fuels made from decomposing plants and animals, which are found in the Earth's crust. They contain carbon and hydrogen, which can be burned for energy. Coal, oil, and natural gas are examples of fossil fuels.

Funding position – a comparison of the value of assets with the value of liabilities for a DB pension scheme.

Gilts – bonds issued by the UK government. They are called gilts as the bond certificates originally had a gilt edge to indicate their high quality and thus very low probability of default

Greenhouse gas (GHG) emissions (scopes 1, 2 and 3) – gases that have been and continue to be released into the Earth's atmosphere. Greenhouse gases trap radiation from the sun which subsequently heats the planet's surface (giving rise to the "greenhouse effect"). Carbon dioxide and methane are two of the most important greenhouse gases.

Gross Domestic Product (GDP) – this is the value of all goods and services produced in a country over a given period, typically a year.

Investment mandate – see pooled mandate and segregated mandate

Integrated risk management – Integrated risk management is an approach used by DB pension scheme trustees to identify, manage and monitor the wide range of risks (relating to investment, funding and covenant) which might impact the chances of meeting their scheme's overall objectives

Liabilities – obligations to make a payment in the future. An example of a liability is the pension benefit 'promise' made to DB pension scheme members, such as the series of cash payments made to members in retirement. The more distant the liability payment, the more difficult it often is to predict what it will actually be and hence what assets need to be held to meet it.

LDI (Liability Driven Investment) – an investment approach which focusses more than has traditionally been the case on matching the sensitivities of a DB pension scheme's assets to those of its underlying liabilities in response to changes in certain factors, most notably interest rate and inflation expectations.

Net zero – this describes the situation in which total greenhouse gas emissions released into the atmosphere are equal to those removed. This can be considered at different levels, eg company, investor, country or global.

Offsetting – the process of paying someone else to avoid emitting, or to remove from the atmosphere, a specified quantity of greenhouse gases, for example through planting trees or installing wind turbines. It is sometimes used to meet net zero and other emission reduction targets.

Paris Agreement – the Paris Agreement is an international treaty on climate change, adopted in 2015. It covers climate change mitigation, adaptation and finance. Its primary goal is to limit global warming to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels.

Physical risk – these are climate-related risks that arise from changes in the climate itself. They include risks from more extreme storms and flooding, as well as rising temperatures and changing rainfall pattens.

Pooled mandate – a feature of a collective investment vehicle whereby an investor's money is aggregated (i.e. "pooled") with that of other investors to purchase assets. Investors are allotted a share of those assets in proportion to their contribution. Ownership is represented by the number of "units" allocated – eg if the asset pool is worth £1m and there are 1m units then each unit is worth £1. Pooled funds offer smaller investors an easy way to gain exposure to a wide range of investments, both within markets (eg by buying units in a UK equity fund) as well as across markets (eg by buying units in both a UK equity fund and a UK corporate bond fund).

Portfolio alignment metric – this measures how aligned a portfolio is with a transition to a world targeting a particular climate outcome, such as limiting temperature rises to well below 2°C, preferably to 1.5°C, as per the Paris Agreement. Assessments using these metrics consider companies' and governments' greenhouse gas (GHG) emissions reduction plans and likelihood of meeting them, rather than current, or the latest reported, GHG emissions.

Purchasing Power Parity (PPP) – the PPP is a theory of long-term equilibrium in exchange rates based on relative prices. For example, if the price of a basket of goods in the UK is £100 and the same basket costs $200 in the USA, then the PPP exchange rate would be £1:$2. The PPP rate and the actual market exchange rate can differ.

Responsible Investment (RI) – the process by which environmental, social and governance (ESG) issues are incorporated into the investment analysis and decision-making process, and into the oversight of investments companies through stewardship activities. It is motivated by financial considerations aiming to improve risk-adjusted returns.

Science-based targets – targets to reduce greenhouse gas emissions that are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement.

Science-Based Targets initiative (SBTi) – an organisation that sets standards and provides validation for science-based targets set by companies and investors.

Scenario analysis – a tool for examining and evaluating different ways in which the future may unfold.

Scope 1, 2 and 3 – a classification of greenhouse gas emissions. Scope 1 greenhouse gas emissions are all direct emissions from the activities of an entity or activities under its control. Scope 2 greenhouse gas emissions are indirect emissions from electricity purchased and used by an entity which are created during the production of energy which the entity uses. Scope 3 greenhouse gas emissions are all indirect emissions from activities of the entity, other than scope 2 emissions, which occur from sources that the entity does not directly control.

Segregated mandate – a segregated investment approach ensures that an investor's investments are held separately from those of other investors. This approach offers great flexibility – for example, the investor can stipulate the precise investment objective to be followed and can dictate which securities can or cannot be held.

Stakeholder – an individual or group that has an interest in any decision or activity of an organisation. The stakeholders of a company include its employees, customers, suppliers and shareholders.

Statutory obligations – statutory obligations are those obligations that do not arise out of a contract but are imposed by law.

Stewardship – stewardship is the responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society. It is often implemented via engagement with investee companies and exercising voting rights.

Stranded assets – assets that have suffered an unanticipated loss of value before the end of their expected useful economic life. The term is most often applied to fossil fuel investments in the context of climate policy, where legislative and market developments may result in assets being worth less than the value recorded on company balance sheets.

Sustainable investing - an approach in which an assessment of the environmental and social sustainability a company's products and practices is a key driver in the investment decision. ESG analysis therefore forms a cornerstone of the investment selection process.

Taskforce on Climate-related Financial Disclosures (TCFD) – a group of senior preparers and users of financial disclosures from G20 countries, established by the international Financial Stability Board in 2015. The TCFD has developed a set of recommendations for climate-related financial risk disclosures for use by companies, financial institutions and other organisations to inform investors and other parties about the climate-related risks they face.

Transition risk – these are climate-related risks that arise from the transition to a low-carbon economy and can include changes in regulation, technology and consumer demand.