



TCFD

TASK FORCE ON
CLIMATE-RELATED
FINANCIAL
DISCLOSURES

Climate disclosures for year ending 31 March 2024

Produced by: The Board of the John Lewis Partnership Pensions Trust

Date: October 2024

Introduction

Climate change is affecting the planet, causing extreme weather events, impacting crop production, and threatening Earth's ecosystems. Understanding the impact of climate change and the John Lewis Partnership Trust for Pensions' (the "Trust") vulnerability to climate-related risks will help the Board of the John Lewis Partnership Pensions Trust (the "Trustee") to mitigate these risks and take advantage of any opportunities.

UK regulations require pension scheme trustees to meet climate governance requirements and publish an annual report on their scheme's climate-related risks in line with the recommendations of the Taskforce on Climate-related Financial Disclosure ("TCFD").

Better climate reporting should lead to better-informed decision-making on climate-related risks. In addition, greater transparency around climate-related risks should lead to more accountability for actions that have climate-related consequences and provide decision-useful information to investors and beneficiaries.

This report has been prepared in accordance with the regulations set out under The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 (the "Regulations"). It provides an update on how the Trust aligns with each of the four pillars set out in the regulations. These pillars are summarised below:

- **Governance:** The Trust's governance around climate-related risks and opportunities.
- **Strategy:** The actual and potential impacts of climate-related risks and opportunities on the Trust's strategy and financial planning.
- **Risk Management:** The processes used to identify, assess and manage climate-related risks.
- **Metrics and Targets:** The metrics and targets used to assess and manage relevant climate-related risks and opportunities.

This is the third annual TCFD report that has been prepared by the Trustee and covers the year ended 31 March 2024 (the "Scheme Year").

What is TCFD?

The Financial Stability Board created the Taskforce on Climate-related Financial Disclosure ("TCFD") to develop recommendations on the types of information that entities should disclose to support investors in assessing and pricing risks related to climate change.

The TCFD has developed a framework to help companies and other organisations, including pension schemes, more effectively disclose climate-related risks and opportunities through their existing reporting processes.



Table of contents

Introduction	2
Executive summary	4
Governance	7
Strategy	13
Risk management	26
Metrics & Targets	31
Appendices	39
Appendix A – Glossary	40
Appendix B – An explanation of climate risk categories	42
Appendix C – Climate scenario modelling assumptions	44
Appendix D – Greenhouse gas emissions in more detail	46
Appendix E – Notes on metrics and targets analysis	48

Executive summary

To produce this TCFD-aligned report, the Trustee has worked with our investment advisers to carefully consider the potential impact climate change could have on the Trust and how we identify, manage, and mitigate those risks.

The Trustee believes that climate change is a systemic risk to the global economy and the investments of the Trust. The Trustee therefore supports the recommendations set out by the TCFD on the basis that it will allow us to assess, monitor and mitigate climate-related risks more closely, on behalf of our members. This is our third disclosure under the TCFD framework, and this report is expected to evolve over time as market practice in this area continues to improve. As before, the Trustee has sought to provide complete information where it is able to, noting that data availability remains poor in some areas.

Overview of the Trust

The Trust is comprised of a Defined Benefit (“DB”) Section and a Defined Contribution (“DC”) Section. Both sections are within the scope of this TCFD report.

The DB Section investment portfolio is currently diversified across a range of different asset classes including private equity, private credit, real assets and hedging assets known as Liability Driven Investments (“LDI”).

The DC Section offers members a range of investment funds, including a default fund for those that do not want to make investment decisions. The funds included in the default arrangement (which is the focus of the analysis in this report) include equities, cash and multi-asset funds.

Summary of our findings

This report is divided into four sections which align with the pillars of the TCFD recommendations. The key findings of each section are as follows:

Governance

The Trustee has ultimate responsibility for the oversight of climate-related risks and opportunities. A comprehensive governance and management framework relating to Environmental, Social and Governance (“ESG”) considerations (which includes climate-related risks and opportunities) is in place, and this is reviewed against best practice regularly. Over the Scheme Year the Trustee reviewed its ESG beliefs and took steps to document a Responsible Investment (“RI”) Policy, which has been published since the end of the Scheme Year covered by this report. As such, further information will be included in next year’s report on the new RI policy and the follow-on activities completed by the Trustee.

As at year-end, the Trustee delegated oversight of the Trust’s climate change risk management to the DB Sub-Committee (“DBC”) and the DC Sub-Committee (“DCC”). Over the past three years, aspects of this had been delegated to a Climate Change Working Group (“CCWG”); this was disbanded over the Scheme Year, having

successfully achieved its objective of establishing a process for climate change reporting, with its responsibilities handed over to the DBC and DCC.

Strategy

As a long-term investor, the Trustee recognises that the risks and opportunities arising from climate change are diverse and continuously evolving. The Trustee regularly reviews exposure to different types of climate-related risk across the DB and DC Sections of the Trust. This includes both transition-related risk and physical damages risk, which are expected to have a varying impact over different timescales that are relevant to the Trust (and are highly dependent on the success or otherwise of global policy development over the next few years).

The Trustee has previously carried out scenario analysis to test the resilience of the Trust's funding and investment strategy (where relevant) to climate change. From the analysis the Trustee concluded that the investment strategies of the DB and DC Sections are resilient to climate change under various scenarios, based on the strategies in place at the time of the analysis. This analysis has not been refreshed for this year's report as there is no requirement to do so, but the expectation is that the Trustee will conduct a fresh assessment over the coming Scheme Year bearing in mind the DB and DC investment strategies are in the process of being reviewed by the DBC and DCC, respectively.

Risk Management

The Trustee has integrated climate-related risks into its policies and risk management processes. The Trustee has developed a Climate Risk Management Framework which helps it to manage climate-related risks and opportunities. This is set out in detail in the Risk Management section.

Metrics and Targets

The report details our climate metrics for the year, and progress relative to the Trustee's climate target. As was the case last year, the availability and quality of climate data is materially better for the DC Section of the Trust than the DB Section given the nature of the investments.

This is the second year that the Trustee are required to report on 'Scope 3' emissions, where available, but the Trustee notes that the availability of Scope 3 data remains poor across the industry. Indeed, none of the managers for the DB section are able to provide scope 3 emissions at this time. This situation is expected to improve over the coming years as the DB Section's investment strategy evolves and invests in more liquid asset classes such as equities where data availability is materially better.

The Trustee will continue to work with our advisers and investment managers to increase the depth and quality of data coverage to improve the reliability of our disclosures in future.

DB Section

Manager / Mandate	Assets (£m)	Total GHG emissions (tCO ₂ e)		Carbon footprint (tCO ₂ e/£m)	
		Scopes 1 & 2	Scope 3	Scopes 1 & 2	Scope 3
LGIM / Liability Driven Investments	2,034	151,681	-	74.6	-

ICM / Private Credit	9	3,488	-	383	-
Abrdn / Infrastructure	82	1,747	-	22	-
Ancala / Infrastructure	44	8,039	-	183	-
DB Other Assets	1,817	Not Available			

Source: Investment managers, Mercer estimates. Data as at 31/03/2024. Figures may not sum due to rounding. 2023 figures are not included given the change in the assets covered by the analysis over the year.

DC Section

Manager / Mandate	Assets (£m)		Total GHG emissions (tCO ₂ e)				Carbon footprint (tCO ₂ e/£m)			
	2023	2024	Scopes 1 & 2		Scope 3		Scopes 1 & 2		Scope 3	
			2023	2024	2023	2024	2023	2024	2023	2024
Global Equity	897	1,211	80,000	83,081	-	809,580	90	71	-	706
Diversified Growth	127	176	9,700	14,453	-	74,848*	100	94	-	816*
Cash	95	120	18	149	-	26,401	0.4	1.3	-	319

2024 data: source: investment managers, Mercer estimates. Data as at 31/03/2024. Figures may not sum due to rounding.

2023 data: source: investment managers, AON. Figures are included for completeness, where available, given the figures should be comparable on a like-for-like basis.

*Scope 3 data not available for BlackRock Market Advantage Fund; figure represents only the c2/3 allocation to the LGIM Diversified Fund and the figure has not been scaled.

Progress against the data quality target and update on 'Net Zero'.

This is the Trustee's third TCFD report. In the prior Scheme Year, the Trustee reviewed its target and decided to strengthen it for the DC Section by shortening the timeframe for achieving 100% data quality by 5 years (to 2027). The Trustee has not made any changes to its climate-related targets during this Scheme Year.

Section	31 March 2022 Baseline	31 March 2023	31 March 2024	Target
DB	25%	64%	54%	100% by 2032
DC	69%	90%	92%	100% by 2027

As noted above, the Trustee has worked over the Scheme Year to review its Responsible Investment beliefs; a key tenet of this is the belief that climate change is a systemic risk to the global economy and the investments of the Trust. The Trustee has therefore taken an important step by setting an ambition of 'Net Zero' carbon emissions by 2050 across its investment portfolio (noting this target was agreed and ratified after the end of the Scheme Year covered by this report). The Trustee will continue to develop its strategy and implementation plan to achieve this objective across the DB and DC sections of the Trust. This will include setting shorter-term targets that are expected to be formally adopted and incorporated into next year's TCFD report.

The Trustee hopes you enjoy reading this report and understand more about how the Trust manages climate-related risks and opportunities within the Trust.

Governance

Governance is the way the Trust operates and the internal processes and controls in place to ensure appropriate oversight. Those undertaking governance activities are responsible for managing climate-related risks and opportunities. This includes us, as the Trustee, and others making Trust-wide decisions, such as those relating to the funding and investment strategy, or the ability of the sponsoring employer to support the Trust.



Our governance framework

The Trustee is ultimately responsible for overseeing all strategic matters related to the Trust. This includes the governance and management frameworks relating to ESG considerations, including climate-related risks and opportunities.

As part of the framework for managing climate-related risks and opportunities the Trustee uses sub-committees which have appropriate skills in each area. The Trustee is very mindful of the DWP requirements and retains overall control over the management of climate-related issues. Where relevant the Trustee will consider the recommendations of these sub-committees and ratify or challenge any decisions that require its approval.

The Trustee has formally approved a detailed plan to achieve compliance with the legal requirements and will maintain regular oversight of this. On an annual basis, the Trustee will review the governance model, climate metrics and progress relative to the agreed targets. The climate-related risks associated with the employer covenant and the funding and investment strategy of the Trust will be reviewed at least every three years to align with the actuarial valuation (or more regularly if there is a material change in investment strategy or modelling approach).

The Trustee considers the time and resources spent on considering climate-related risks and opportunities as commensurate relative to total investment risk being run by the Trust. ESG and climate-related issues have been a key item on Trustee and relevant Sub-Committee agendas throughout the year and have continued to be since the end of the Scheme Year.

The Trustee's climate-related beliefs and approach to managing climate change risk are set out in the Trust's Statement of Investment Principles ("SIP") (found [here](#) for the DB section and the DC section), which is reviewed at least annually (or following a change to the Trust's investment arrangements). Since the end of the Scheme Year, the principal elements of this have been defined within a separate RI Policy, that will be referenced in the SIP and can be found [here](#).

Climate-related risks and opportunities are fully integrated into our risk management framework so we can maintain oversight of those that are relevant to the Trust. Further information is set out in the Risk Management section of this report.

The Trustee receives training on an annual basis (or more frequently if required) on climate-related issues to ensure that it has the appropriate knowledge and understanding to support effective decision-making. Over the Scheme Year the Trustee received training on various topics including 'Net Zero' decarbonisation pathways, assisting in re-testing its RI beliefs. Further training has been provided since the end of the Scheme Year on topical areas including 'Impact' investment and Nature/Biodiversity, with the latter covering the important interactions between nature and the climate crisis.

Legal disclosure required:

How the trustee maintains oversight of climate related risks and opportunities relevant to the scheme (Para. 27 (a))

Our overall risk management framework is maintained by our Audit and Risk Sub-Committee. The Trustee delegates oversight of the Trust's climate change risk management to the DBC and DCC. Over the Trust Year, the Climate Change Working Group ("CCWG") was disbanded, having successfully achieved its purpose of establishing a process for climate change reporting, with its responsibilities handed over to the DBC and DCC. The Trustee is updated through this structure on material climate-related developments on a regular basis (at least annually).

Defined Benefit Sub-Committee

The main objectives of the DBC include oversight of the management of the DB assets, funding and monitoring of the Sponsor covenant. Their role in respect of climate-related issues is as follows:

- To monitor climate-related metrics alongside the integrated risk management. This includes assessing the following:
 - Climate-related risks associated with the assets, measured through 'point in time' analysis of climate metrics as well as forward looking analysis of the potential impact on long-term market factors such as investment returns (in aggregate and by sector), inflation and interest rates.
 - The impact of climate risk on the covenant of the John Lewis Partnership plc (the "Partnership"), including changes in turnover, profit margins and the market values of the Partnership's assets. This includes the impact of transition risks and longer-term physical damages. This also includes an assessment of the value of the assets that are pledged to the Trust should the Partnership become insolvent.
 - The potential impact on the Trust's liabilities including changes in longevity, working patterns and retirement ages.
- To advise the Trustee and to implement targets in respect of climate-related metrics.
- To monitor progress against those targets and provide analysis of that progress.
- To monitor investment opportunities that will arise from the transition to a low carbon economy, including renewable technology.
- To provide challenge to advisers and providers on their work in this area.

Defined Contribution Sub-Committee

The main objective of the DCC is to provide oversight of the management of the DC assets. Its role in respect of climate-related issues is similar to the DBC but with a different risk-emphasis because of the nature of the benefits provided being longer-term (and therefore subject to greater physical climate risks) than the DB benefits.

Climate Change Working Group

The Trustee set up a Climate Change Working Group ("CCWG") to help fulfil TCFD and other reporting requirements and to support the Trustee's approach to climate change overall. The CCWG was made up of four Trustee Directors plus a representative from the Partnership.

The CCWG had a mandate to provide the initial review of all work conducted by the appointed Responsible Investment adviser and recommend to the Trustee an appropriate climate risk framework and reporting disclosures.

Over the Trust Year, the CCWG was disbanded, having successfully achieved its purpose of establishing a process for climate change reporting, with its responsibilities handed over to the DBC and DCC. Concurrently, the Trustee also consolidated the Responsible Investment adviser role into the DB and DC Investment adviser roles, with the latter roles now including responsibility for advising the Trustee on ESG and climate-related issues.

How the Trustee works with our advisers and providers

The Trustee expects its advisers and providers to bring important climate-related issues and developments to our attention in a timely manner. The Trustee also expects its advisers and investment managers to have appropriate knowledge on climate-related matters, however it does not set any minimum requirements in this regard.

The work of each of these providers is monitored by the DBC and DCC, and there is also an Adviser Review policy in place at Trustee level which provides an additional level of scrutiny. In line with the requirements of the Investment Consultancy and Fiduciary Management Market Investigation Order 2019 and subsequent Occupational Pension Schemes (Governance and Registration) (Amendment) Regulations 2022, the Trustee assesses the performance of the DB and DC Investment Advisers against key objectives annually. One of these objectives covers performance regarding ESG-related issues.

The Trustee engages with its advisers and provides challenge on ESG-related issues, as appropriate. This is assisted by having a number of professional Trustee Directors who have experience with ESG-related issues across different DB and DC pension schemes that they work with.

Aon – Responsible Investment adviser (to January 2024)

- Provided support and advice on climate-related investment risks and opportunities both in the portfolio and in the capital markets.
- Supported the Trustee to deliver the Trust's TCFD reporting including (but not limited to) advising on the Trust's approach to the identification, assessment and management of relevant climate-related risks and opportunities, providing scenario analysis, and analysis of climate-related metrics and the Trustee's chosen targets. Assisted the Trustee in the drafting and finalising of the Trust's second TCFD report.

Mercer – DB Investment Adviser and Trust Actuary

Investment:

- Includes several of the responsibilities outlined above including responsibility for supporting the Trust through the TCFD reporting process, in conjunction with other advisers.
- Provides input on the DB investment strategy including the impact of climate-related issues.
- Provides ESG monitoring on DB investments.
- Provides scenario analysis and the collection/analysis of climate-related metrics, including monitoring against the Trustee's chosen targets. Please note that Mercer also collect climate-related data for the DC Section of the Trust, as part of a broader role project managing the TCFD reporting process (linking in with other advisers as necessary).

Actuarial:

- Provides analysis of the potential impact of climate-related issues on the Trust's liabilities and funding.

Legal disclosure required:

The role of any person who, otherwise than as a legal adviser of the trustees, advises or assists the trustees with respect to scheme governance activities and the process by which the trustees satisfy themselves that the person is taking adequate steps to identify and assess any climate-related risks and opportunities which are relevant to the matters in respect of which they are advising or assisting (Para. 27 (c))

Note: Mercer were also engaged as DC investment adviser to the Trust over the Scheme Year. Hymans Robertson were subsequently appointed to this role following a competitive tender process in early 2024. Credentials in advising on ESG-related issues were considered by the Trustee as part of this selection process.

Hymans Robertson – DC Governance and Investment Adviser (including Responsible Investment)

- Hymans Robertson's role in respect of climate-related issues is similar to that of Mercer with respect to the DB investment advice, but with a different risk-emphasis because of the different nature of DC benefits being longer-term (and therefore subject to greater physical climate risks) than DB benefits.
- Incorporates commentary on climate-related risks and opportunities (including Trustee activity in these areas) into key DC reporting that they are responsible for (e.g. Value for Members assessment).
- Reassess the ESG integration within the DC investment strategy as part of the triennial investment strategy review process.

Cardano – Covenant adviser

Provides analysis of the potential impact of climate-related issues on the strength of the covenant of the Partnership.

Sackers & Partners LLP - Legal adviser

The Trustee seeks advice from its Legal adviser to ensure climate reporting, policies and commitments set are in line with the legal requirements.

Trustee Services – In-house pensions team

The in-house pensions team may assist with the day-to-day implementation of the climate risk framework as and when required. This will involve liaison with the Trustee as well as the advisers and providers noted above.

The framework and activities set out above help ensure that the Trustee is comfortable the advice they receive is appropriate in relation to the assessment and management of climate-related risks and opportunities.

Trustee Knowledge and Understanding

The Trustee has put the following structures in place to support decision-making, strategy setting and implementation around climate change activity.

To ensure that the decision making and strategy setting processes increase the likelihood of good member outcomes.

- **Formal training:** This covers both legal requirements and practical training on climate change and the various metrics used to measure it. The Trustee receives training on these matters at least annually. Over the Scheme Year it received training on ESG and climate issues at two Trustee meetings (as set out later in this section). A priority list was also established for future training, which included 'Impact' investment and Nature/Biodiversity (training that has subsequently taken place after the end of the Scheme Year).
- **Ongoing reviews of published material on legal and best practice requirements:** The Trustee receives updates on emerging best practice in what is a rapidly developing area from sources such as The Pensions

Regulator, the Government, and industry experts (including its appointed advisers).

- **Ongoing reviews of climate change issues:** Whilst the Trustee is not itself expert on all scientific analysis of climate change, it does receive updates on developments such as breakthroughs in technology, significant news about climate events and academic research, from parties with recognised expertise in these areas.

To ensure that tasks are carried out on a timely basis and that knowledge and decisions from previous tasks are incorporated into future decision making and activities.

A project plan has been developed and refined which covers the following activities:

- The production of climate change reports.
- The inclusion of climate risk in triennial actuarial valuation discussions.
- The inclusion of these risks into future reviews of the DB and DC investment strategy.
- The review of due diligence processes on investment managers and other providers.
- The review of reporting of financial and risk information as part of the integrated risk management processes.
- Researching how the Trustee might be able to develop a net-zero target that is consistent with its legal obligations and its investment requirements.

The resourcing and costs of the above have been incorporated into the Trust's budget and planning processes.

In addition to the ongoing actions listed above, during the year the Trustee carried out the following activities to improve its knowledge and understanding of ESG and climate-related issues.

- In December 2023, with the assistance of the DB and DC Investment Advisers, the Trustee received training on ESG and climate issues and used this to review its responsible investment beliefs, surveying key stakeholders to determine their views with a view to better informing investment decision making. Further training has taken place after the end of the Scheme Year, in April and July 2024.
- The key outcome of this training was to adopt a standalone Responsible Investment Policy for the Trust (kept and maintained separately to the SIP), which incorporates key beliefs concerning climate-change, including the Trustee's proposed approach to 'Net Zero'. The RI Policy can be found **here**.

Strategy

In this section the Trustee focuses on the climate-related risks and opportunities that will impact the Trust. Analysing this is key to understanding the impact climate change could have on the Trust in the future.



What is climate risk and how will this change over time?

Climate-related risks

As a long-term investor, the Trustee recognises that the risks and opportunities arising from climate change are diverse and continuously evolving. The effects of climate change will be felt at different times in the future and to different extents. The Trustee believes it is important to understand how the Trust's exposure to climate-related risks may change over time, when the risk exposure may be greatest and what actions can be taken now, or in the future, to avoid those risks becoming financially material to the Trust.

The Trustee has considered a range of short, medium and long term drivers of climate risks; these primarily relate to two categories that are defined in full in the Risk Management section of this report:

Transition risks

This covers the potential financial and economic risks from the transition to a low-carbon economy (i.e. one that has a low or no reliance on fossil fuels), in areas such as:

- Policy and legislation
- Market
- Technology
- Reputation

Risks include the possibility of future restrictions, or increased costs, associated with high carbon activities and products. There are also opportunities, which may come from the development of low-carbon technologies and nature-based solutions. In order to make a meaningful impact on reducing the extent of global warming, most transition activities need to take place over the next decade and certainly in the first half of this century.

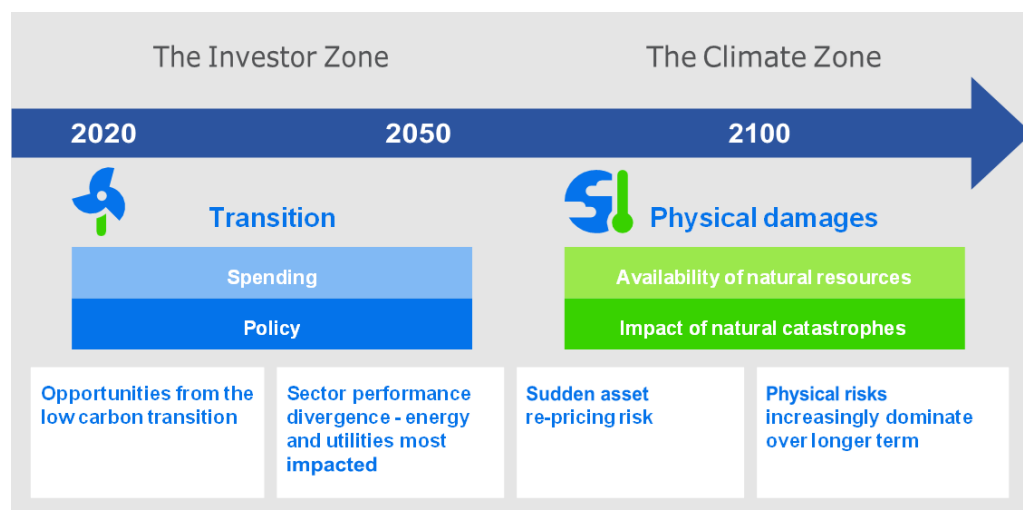
Physical risks

The higher the future level of global warming, the greater physical risks will be in frequency and magnitude. Physical risks cover:

- Physical damage (storms; wildfires; droughts; floods; reduced productivity of labour and agriculture)
- Resource scarcity (water; food; materials; biodiversity loss)

Physical risks are expected to be felt more as the century progresses though the extent of the risks is highly dependent on whether global net zero greenhouse gas emissions are achieved by 2050.

The interaction between transition risk and physical risk is demonstrated by the graphic below.



Source: Mercer.

Climate-related opportunities

In addition to assessing the climate-related risks associated with the Trust's investment arrangements, the Trustee is also required to consider and monitor climate-related opportunities associated with Trust assets.

The Trustee has considered these and is of the view that investment opportunities remain in investments linked with the development of technology and low carbon solutions, which may be harnessed through the sustainable equity allocation in the DC Section.

Through the DC Section's multi-asset funds, opportunities can also be captured by increased exposure to sustainable global equities and other assets that display a high level of climate resilience.

The Trustee continues to review the Trust's investment strategy with a view to achieving the appropriate risk and return balance to achieve the agreed objectives for the DB and DC Sections (as set out in the SIP). The investment strategy is therefore subject to change, and by extension the opportunities that are associated with it.

Time horizons

To help with its assessment, the Trustee has previously defined short, medium and long-term time horizons for the Trust's investments (separately for the DB and DC Sections). The climate-related risks and opportunities that are relevant to the Trust vary over these periods.

The Trustee has assessed the climate-related risks and opportunities over these time horizons considering the asset classes in which the DB and DC Sections are invested.

When deciding the relevant time horizons, the Trustee considered the liabilities of the Trust (where relevant) and its obligations to pay benefits. The Trustee previously set the time horizons for DB and DC sections of the Trust as follows:

DB time horizons (31 December 2022 analysis date)

- Short term: 1 - 5 years
- Medium term: 6 - 10 years

- Long term: 11 - 28 years

DC time horizons (31 December 2021 analysis date)

- Short term: 1 - 3 years.
- Medium term: 4 - 8 years
- Long term: 9 - 28 years

Short Term

Transition risks are greater than physical risks with moderate asset re-pricing risk driven by:

- Increases in private sector net zero commitments and clearer decarbonisation plans;
- Perceived or real increased pricing of greenhouse gas emissions;
- Exposure to developing economies, which have longer time horizons for country-level phase down of fossil fuel usage.

The DC Section is exposed to transition risk predominantly through its allocation to public equities. At the time of writing, the DB Section had no exposure to public equity, however it is expected to introduce an allocation in the future as part of the ongoing strategy review for the Trust.

Medium Term

Transition risks continue to dominate with heightened asset re-pricing risk:

- Future warming pathways become clearer;
- Market awareness grows and is better priced into asset valuations;
- Unexpected policy changes that surprise markets.

The greatest climate-related exposure remains within the public equity allocation, particularly for the DC Section where maintaining a sizeable equity allocation is typically appropriate given the member's time horizon to retirement. For the DB Section, risk exposures may be skewed towards bonds and real assets, where the issuer has made minimal effort to support the low carbon transition and this may lead to a potential default.

Long Term

Physical risks increase materially:

- The implications of the physical impacts of climate change become clearer to markets and will impact asset valuations.
- Physical impacts of climate change could impact productivity and therefore economic growth (e.g. if there is material warming) and infrastructure/real estate assets could be impacted by flooding.
- Physical risks linked to resource availability may require some businesses to relocate their operations or change their production process.
- Government responses to build regional resilience through the need to adapt local infrastructure may lead to higher economic costs.
- Policy, legislation and regulation are likely to also play a key role at the international, national and subnational level.

Additional policy, legislation and regulatory action over the Long Term is likely to be inflationary. The DB Section's liability hedging programme should minimise the impact of rising inflation on the funding strategy of the Trust. The investment time horizon for the DB Section is

expected to be significantly shorter than for the DC Section, so the relative impact of climate risk is expected to be reduced.

How resilient is the Trust to climate change?

The Trustee has previously worked with its advisors to carry out an analysis of various climate change scenarios to better understand the impact climate change could have on the Trust's, assets, liabilities and the covenant of the Partnership.

Scenario analysis was initially conducted for the DB and DC sections of the Trust in 2022, and this was updated for the DB Section of the Trust in 2023 (with support from AON as the appointed RI adviser) as there had been material changes to the DB investment strategy since the analysis had been completed.

The Trustee has reviewed the analysis that was presented in last year's TCFD report relative to the Trust's DB and DC arrangements and has concluded that it was not necessary to refresh the analysis. The Trustee is also comfortable that there has not been a fundamental change in modelling approach that would require the analysis to be updated.

The Trustee is reviewing the Trust's investment strategy for both the DB and DC Sections of the Trust and changes are expected to be agreed and implemented before the end of the next Scheme Year. The Trustee therefore expects that the scenario analysis included in this report will be refreshed for both the DB and DC sections of the Trust.

The analysis set out in this section looks at a range of climate change scenarios, each of which considers what might happen to the Trust's investments under a particular scenario (with the scenarios designed to demonstrate a range of transition and physical damages risks).

The scenarios for the DB Section were developed by Aon (and provided to the Trustee in their previous capacity as RI Adviser to the Trustee) and are based on detailed assumptions. They are only illustrative and are subject to considerable uncertainty. The scenarios for the DC Section of the Trust were provided by J.P.Morgan (in their capacity as the Trust's custodian).

Legal disclosure required:

The most recent scenarios which the trustees have analysed (Para 27 (g))

The resilience of the scheme's investment strategy and where the scheme has a funding strategy, the resilience of the funding strategy, in the most recent scenarios the trustees have analysed (Regulation 27 (i))

In cases where the trustees have determined not to undertake new scenario analysis, the trustees' reasons for this determination (para. 27 (j))

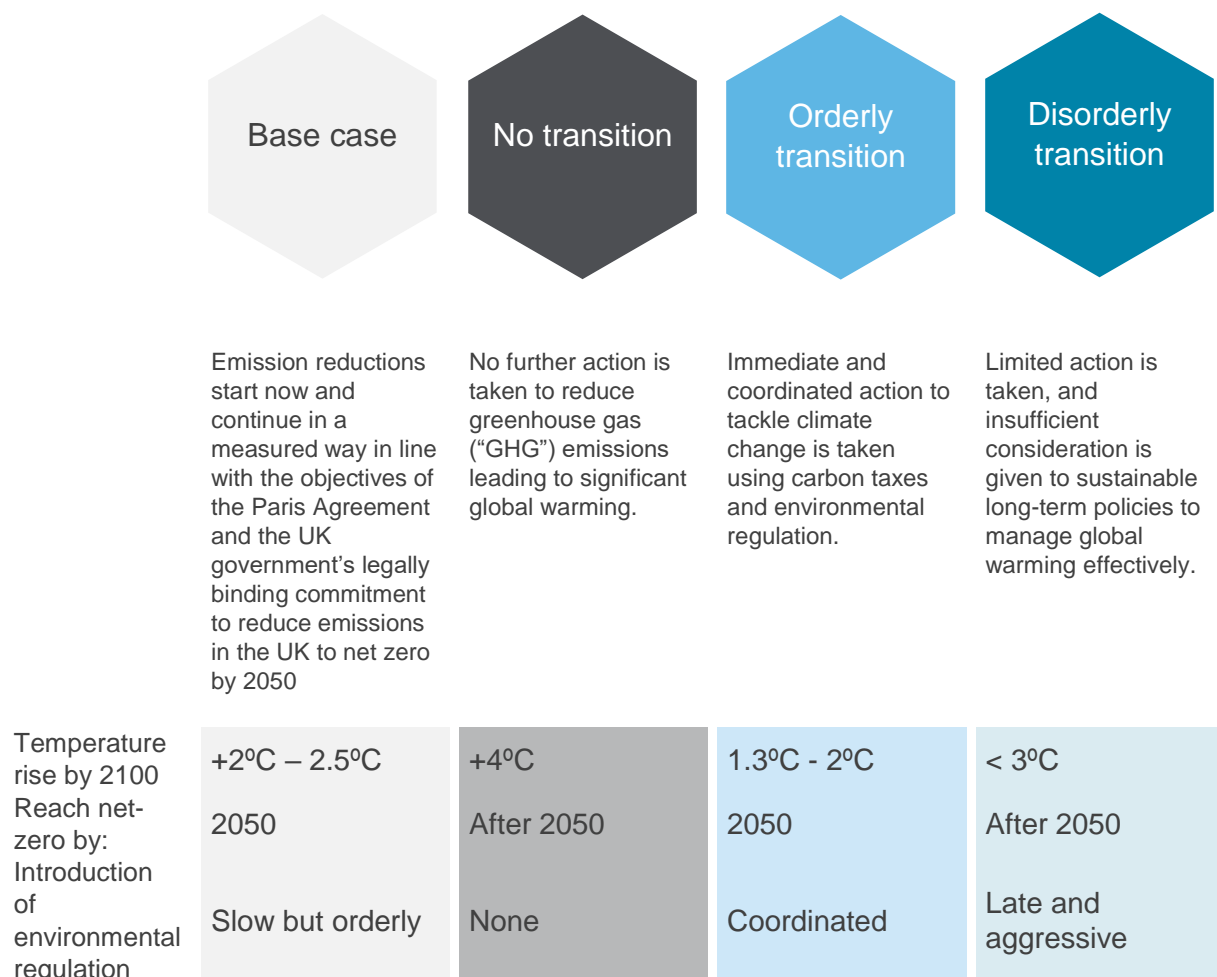
Key conclusions

The Trustee has not repeated the scenario analysis this year for either section because it believes that the analysis remains appropriate, as there have been no significant changes (to the strategy or modelling approach) that would fundamentally impact the results.

Based on the analysis in the sections below, we believe the current levels of climate-related risks are not yet material to the resilience of our funding and investment strategies over the time periods considered.

DB Scenario analysis as at 31 December 2022

The Trustee chose the following three scenarios plus the base case because it believes they provide a reasonable range of plausible climate change outcomes.



Source: Aon

The climate scenarios considered illustrate the climate-related risks the Trust is currently exposed to, highlighting areas where risk mitigation could be achieved through changing the investment portfolio. Other relevant issues such as governance, costs and implementation (including manager selection and due diligence) must be considered when making changes to the investment strategy.

In Aon's analysis, investment risk is captured in the divergence from the Base Case, but this is not the only risk that the Trust faces. Other risks include, but are not limited to, covenant risk, longevity risk, timing of member options, basis risks and operational risks.

DB Impact Assessment

Impact on funding level

The impact assessment shows that the Trust's DB investment strategy exhibits reasonable resilience under most of the climate scenarios. This is due to the diversification of assets and high levels of hedging against changes in interest rates and inflation.

The table below describes the impact of each scenario on the Trust over the short-, medium- and long-term time horizons.

DB time horizons:

Short term: 1-5 years

Medium term: 6-10 years

Long term: 11-28 years

No transition

Temperature rises by 2100	+4°C
Reach net-zero by	After 2050
Introduction of environmental regulation	None

In the short term:

No action is taken to combat climate change.

In the medium term:

No action is taken to combat climate change.

In the long term:

While some climate change policies are implemented, global efforts are insufficient to halt significant global warming. The physical effects of climate change become more severe. The headwinds facing the economy and markets grow.

Trust impact

There is no impact on the Trust's funding level, as it is expected to follow the base case.

There continues to be little impact on the Trust's funding position.

The Trust's investment performance starts to slow down, and the funding level falls below other scenarios. This is the worst case for the Trust.

Orderly transition

Temperature rises by 2100	1.3°C - 2°C
Reach net-zero by	After 2050
Introduction of environmental regulation	Coordinated

In the short term:

Immediate coordinated action is taken to tackle climate change. Risky assets perform poorly.

In the medium term:

The rapid transition to clean technologies and green regulation begins to boost economic growth.

In the long term:

The rapid transition to clean technologies and green regulation begins to boost economic growth.

Trust impact

The Trust experiences volatility in its funding level. This may place a strain on the Partnership should it be required to make up any funding shortfall at a future actuarial valuation via contributions.

The funding position begins to recover.

The funding position recovers. This is the best outcome for the Trust's funding level, which is expected to result in a surplus relative to the base case.

Disorderly transition

Temperature rises by 2100	< 3°C
Reach net-zero by	After 2050
Introduction of environmental regulation	Late and aggressive

In the short term:

No action is taken to combat climate change.

In the medium term:

Late but coordinated action is taken to tackle climate change. The late timing means it is less effective and more costly to implement.

In the long term:

Adverse effects from climate change become progressively worse. There are high levels of economic damage and the irreversible loss of natural capital.

Trust impact

There is no impact on the Trust's funding level, as it is expected to follow the base case.

The Trust experiences volatility in its funding level. This may place a strain on the Partnership should it be required to make up any funding shortfall via contributions.

Whilst the funding level recovers by the end of the 30-year modelling period, this leaves the Trust worse off relative to the base case.

Effective date of the impact assessment is 31 December 2022. The Trustee is in the process of reviewing the DB investment strategy and will consider climate impacts as part of this review. Scenario analysis is expected to be re-run for the DB Section over the next Scheme Year based on the revised target investment strategy,

DC Scenario analysis as at 31 December 2021

The following three scenarios were chosen by the Trustee as these are the stress scenarios that have been published by the Bank of England. The commentary against each scenario shown below is provided by JP Morgan who carried out the analysis as at 31 December 2021.

JP Morgan (“JPM”) analysed the total loss under each scenario, which is made up of losses due to physical climate change impacts (physical risks) plus losses owing to the transition to a low-carbon economy (transition risks).

DC time horizons:

Short term: 1-3 years

Medium term: 4-8 years

Long term: 9-28 years

	A	B	C
Temperature rise	Below 2°C	Below 2°C	Above 4°C by 2100
Type of transition	Sudden/disorderly	Long term/orderly	Policy failures

Source JPM

Bank of England Scenario Test A – a sudden transition leading to temperature rise being kept below 2°C.

JPM Commentary: A sudden transition (a “Minsky” moment), ensuing from rapid global action and policies, and materialising over the medium-term business planning horizon that results in achieving a temperature increase being kept below 2°C (relative to pre-industrial levels) but only following a disorderly transition. In this scenario, transition risk is maximised.

Bank of England Scenario Test B – a long-term orderly transition leading to temperature rise being kept below 2 °C.

JPM Commentary: A long-term orderly transition scenario that is broadly in line with the Paris Agreement. This involves a maximum temperature increase being kept well below 2°C (relative to pre-industrial levels) with the economy transitioning in the next three decades to achieve carbon neutrality by 2050 and greenhouse-gas neutrality in the decades thereafter.

Bank of England Scenario Test C – failed future improvements leading to temperature increase in excess of 4 °C by 2100.

JPM Commentary: A scenario with failed future improvements in climate policy, reaching a temperature increase in excess of 4°C (relative to pre-industrial levels) by 2100 assuming no transition and a continuation of current policy trends. Physical climate change is high under this scenario, with climate impacts for these emissions reflecting the riskier (high) end of current estimates.

DC Impact Analysis

The analysis was done at two levels as shown below:

- At Fund Level
- At Popular Arrangement Level

Fund Level

The value of the assets measured was c.£949.4m being 69% of the total DC assets.

Scenario	A		B		C	
Temperature Rise	Below 2°C		Below 2°C		Above 4°C by 2100	
Type of Transition	Sudden/disorderly		Long term/orderly		Policy failures	
Analysis time horizon	3 years (i.e. to 2025)		28 years (i.e. to 2050)		78 years (i.e. to 2100)	
	%	£m	%	£m	%	£m
Total loss	4.61%	43.8	6.40%	60.6	7.71%	72.8
Transition loss	4.43%	42.1	3.39%	32.2	0	0
Physical loss	0.18%	1.7	3.01%	28.4	7.71%	72.8

Source JPM

The funds that are in scope of the analysis are managed largely on a passive basis and the manager is obliged to invest in line with the indices with some additional discretion for the diversified growth fund. The details of how these funds invest can be found in the DC SIP. The Trustee has a number of legal obligations to the members and the beneficiaries of the DC section of the Trust concerning the suitability of the investments and achieving “Value for Members”.

The Trustee is exploring with its DC investment adviser how to reduce the climate risk associated with the DC investments in a way which is consistent with its other legal obligations. This will be reported on in next year’s TCFD report. The scenario analysis for the DC Section will also be re-run to incorporate the agreed changes to the default investment strategy.

Popular Arrangement Level

The majority of DC members are in the default arrangement, which has an asset allocation which starts with 100% in equities (“the Growth Phase”) and reduces that over the 15-year period to retirement in the following way:

- “The Consolidation Phase” from year 15 to 7 before targeted retirement age (“TRA”), assets gradually switch from the JLP Global Equity fund to the JLP Diversified Growth Fund (“DGF”). At 10 years prior to TRA, members will have 40% in the equity fund and 60% in the DGF.
- “The Pre-Retirement Phase” from 7 years to TRA. Assets are gradually switched over to the JLP Cash fund until it reaches 100%.

Scenario	A		B		C	
Temperature rise	Below 2°C		Below 2°C		Above 4°C by 2100	
Type of transition	Sudden/disorderly		Long term/orderly		Policy failures	
	%	£m	%	£m	%	£m
Growth phase						
Total loss	4.86	41	6.66	56	7.85	66
Transition loss	4.68	39	3.54	30	0.00	0
Physical loss	0.19	2	3.11	26	7.85	66
Consolidation phase						
Total loss	3.93	25	5.70	34	7.37	41
Transition loss	3.76	24	2.95	18	0.00	0
Physical loss	0.17	1	2.75	16	7.37	41
Pre-retirement phase						
Total loss	2.01	10	3.01	14	4.06	17
Transition loss	1.92	10	1.53	8	0.00	0
Physical loss	0.09	0	1.48	7	4.06	17

Prudential with-profits policy

The Trustee has a With-Profits Assurance Policy with the Prudential Assurance Society. The asset allocation of that fund is not within the control of the Trustee but rather is controlled by the life company who invest in M&G Plc. The Trustee does not have the ability to change that allocation, but it does review the material that is provided by the Prudential on climate change.

The Trustee has no direct influence of the asset allocation of the With-Profits fund. It has not been able to obtain any data to perform scenario analysis. Given that it has no ability to influence, there would be less value in having obtained that information.

Based on the work described above, the Trustee believes that the current levels of climate risk that it is aware of are not yet material to the resilience of its funding and investment strategies.

Covenant Assessment

The Scheme's covenant adviser, Cardano, advises the Trustee on the ability of the employer covenant to support the Scheme, now and in the future. Climate-related exposures could have a positive or negative impact on the strength of the Scheme's covenant. Therefore, Cardano includes climate-related matters in the covenant advice provided to the Trustee.

During 2022, Cardano carried out an assessment of the potential exposure of the Scheme's covenant to climate-related risks followed by a high-level review of the latest disclosures at the time made by John Lewis Partnership Plc (the "Partnership") in 2023, which was repeated in 2024.

The Trustee recognises it is crucial to understand the potential impact on the employer covenant of the effects of climate change throughout different time horizons, with a focus on how this might influence the Trustee's strategy.

Key conclusions

Cardano and the Trustee concluded in 2022 that, over the expected period of covenant reliance, climate change implications on the covenant presented a relatively low risk to the strategy of the Scheme across the scenarios considered, though this increased significantly over time. The Trustee notes the Partnership continues to progress against its climate targets. To address the risks identified, the Trustee will take the following actions:

- In the near-to-medium-term, continue to incorporate the Partnership's progress against carbon emission reductions targets into its covenant monitoring framework, with sustainability related updates aligned to the Partnership's disclosure timeline;
- If the Scheme's period of covenant reliance extends beyond current expectations, the Trustee should assess: a) covenant implications of transition scenarios from the perspective of the Group's strategy and whether it addresses risks identified; and b) whether climate risks for the Scheme's assets correlate with risks identified in a), and implement specific mitigation if appropriate

Climate scenarios

In 2022, Cardano conducted a high-level assessment of the potential exposure of the Partnership to the three climate scenarios.

The three climate scenarios set out overleaf, broadly aligned with the scenarios considered by the Trustee's investment and actuarial advisors, were considered for the covenant scenario analysis.

Table 1: Climate scenarios

Selected scenarios	Orderly Net Zero 1.5°C scenario	Disorderly Net Zero 2.0°C scenario	Failed Transition 3-4°C scenario
Scenario outline	Global decarbonisation starts now , so policies intensify gradually but immediately. Large transition changes will happen quickly	Temperature increase is kept below 2°C to achieve carbon neutrality by 2050, but with delayed implementation beginning after 2030	No new transition policies above existing commitments lead to continued increase in GHG emissions and rise in global temperatures
Physical risks	Long-term physical risks are reduced but deviations from the present climate are still expected	Long-term physical risks are reduced but deviations from present climate still expected	More pronounced physical risks – particularly over the longer-term
Transition risks	Highest in the near-term as policies are implemented immediately	Highest in the medium-term as policy implementation is delayed	Limited transition risks over above existing commitments and policies
Macro-economic impact	Overall longer-term impact on GDP growth muted , with assumed long-term benefit from green tech investment	Compressed nature of emission reductions drives material short-term macroeconomic disruption and a sharp fall in GDP	UK and global GDP growth permanently lower with that impact increasing over time. Macroeconomic uncertainty rises
Alignment with advisers	Broadly aligned to JPM's below 2c Orderly scenario (i.e. Scenario B)	Broadly aligned to JPM's below 2c Disorderly scenario (i.e. Scenario A)	Broadly aligned to JPM's above 4c policy failure scenario (i.e. Scenario C)

Source: Cardano

Scenarios analysis

Table 2 below provides an overview of the assessed climate risk over time on the covenant of the Scheme as assessed in 2022. The key findings from the risk analysis are as follows:

- Climate risks to the Partnership appear to be moderate in the Orderly scenario in the near-term. The most prominent near-term transition risks relate to potential policy changes around GHG emissions (specifically scope 3 emissions relevant to animal protein as part of the supply chain) and building regulations.
- Transition risks increase over the medium-term, with higher expected carbon prices resulting in significant potential Scope 3 emission exposure in both lower-warming scenarios. Other transition risks are also expected to occur more abruptly in the Disorderly scenario. Physical risks steadily increase in all scenarios considered.
- Over the longer-term, exposure of operations to extreme weather events increasing in frequency and magnitude, coupled with increasing temperatures, water scarcity, flooding and sea level rise, is likely to represent a significant risk to the Partnership's physical assets (properties) and distribution channels. These impacts are expected to be greater in the Failed Transition Scenario, with higher physical risks occurring over time.

Cardano's conclusions as to the potential impact to the covenant over the time periods and the scenarios set by the Trustee is shown below.

Table 2: Assessed climate scenario risk analysis on covenant over time

	Near-term Up to 2027	Mid-term 2027 to 2032	Long-term 2032+
Orderly	Medium risk	Medium risk	Medium risk
Disorderly	Lower risk	Higher risk	Medium risk
Failed	Lower risk	Medium risk	Higher risk

Source: Cardano



Risk management

The Trustee must have processes to identify, assess and manage the climate-related risks that are relevant to the Trust, and these must be integrated into the overall risk management of the Trust.

Reporting on the Trustee's risk management processes provides context for how the Trustee thinks about and addresses the most significant risks to its efforts to achieve the best outcomes for members.



Our process for identifying and assessing climate-related risks

The Trustee has established a process to identify, assess and manage the climate-related risks that are relevant to the Trust. This is part of the Trust's wider risk management framework and is how the Trustee monitors the most significant risks to the Trust in its efforts to achieve the best outcomes for members.

The Trustee's primary method of assessing climate-related risk is quantitative in nature and is delivered by means of climate change scenario analysis, which is provided by our Investment Advisers and reviewed by the Trustee.

The Trustee makes a qualitative assessment of climate-related risk through the use of an investment manager questionnaire, which surveys the Trust's service providers on their views of climate-related risks associated with the mandates for which they have responsibility. This questionnaire is reviewed by the Trustee separately to the TCFD reporting process.

Together, these elements give the Trustee a clear picture of the climate-related risks that the Trust is exposed to. Where appropriate, the Trustee distinguish between transition and physical risks. All risks and opportunities are assessed with reference to the time horizons that we have identified as relevant to the Trust.

When prioritising the management of risks, the Trustee makes an assessment of the materiality of climate-related risks relative to the impact and likelihood of other risks to the Trust. This helps the Trustee focus on the risks that pose the most significant impact.

Legal disclosure required:

The processes which the trustees have established in accordance with paragraph 12 for identifying and assessing climate-related risks which are relevant to the scheme (para. 27 (k))

Process for managing climate-related risks

The Trustee recognises the long-term risks posed by climate change and have taken steps to integrate climate-related risks into the Trust's risk management framework.

The Trustee has developed a risk management framework to manage climate-related risk and opportunities. The risk management framework clearly sets out the actions that are taken, and who is responsible for each of them. The Trustee delegates a number of key tasks to different sub-committees whilst retaining the overall responsibility for monitoring risks associated with the Trust's arrangements.

The Trustee's processes for managing climate-related risks and opportunities are summarised in the tables below. Please note this is correct as at the end of the Scheme Year; other advisors (for example AON as the previous RI adviser) have played important roles historically in a number of these areas, as set out in previous versions of the Trustee's TCFD report.

Governance

Activity	Adviser / supplier support	Frequency of review
Maintain a climate change governance framework	Mercer/Hymans Robertson	Annual
Publish a TCFD report	Mercer	Annual
Publish implementation statements	Mercer/Hymans Robertson	Annual
Add / review climate risks and activity on key Trust documentation (e.g. risk register)	Mercer/Hymans Robertson	Ongoing
Set/review the Trustee's ESG beliefs including climate change, including the introduction of and monitoring against Net Zero targets	Mercer/Hymans Robertson	Triennial
Undertaking trustee training on climate change and climate-related risks, and bring important, relevant and timely climate-related issues to the Trustee's attention	Mercer/Hymans Robertson	Ongoing
Ensure investment proposals explicitly consider the impact of climate risks and opportunities, and seek out suitable investment opportunities	Mercer/Hymans Robertson	Ongoing
Ensure that actuarial and covenant advice adequately incorporates climate-related risk factors where relevant and material	Mercer/Cardano	Triennial

Legal disclosure required:

The processes which the trustees have established for managing climate-related risks which are relevant to the scheme (para. 27 (k))

How the processes are integrated into the trustees' overall risk management of the scheme; (para. 27 (m))

Review adviser objectives to ensure advisers have appropriate climate capability	Trustee	Annual
Assess the Trust's suppliers based on climate-related factors	Trustee	Annual

Trustee update

The Trustee monitored the above activities over the Trust Year. Over the period, the Trustee made its TCFD report and implementation statement publicly available.

Over the Scheme Year the Trustee received training from Mercer and Hymans Robertson on climate risk. The Trustee also reviewed its ESG beliefs and took steps to document a standalone RI Policy, as noted elsewhere in this report.

Over the Scheme Year the Trustee appointed Hymans Robertson as DC investment adviser. It also reviewed the governance model in relation to climate risk more broadly, with responsibilities previously held by the CCWG passing to the DBC and DCC (whilst remaining ultimately the responsibility of the Trustee).

Strategy

Activity	Adviser / supplier support	Frequency of review
Identify climate-related risks and opportunities (over relevant time horizons) for investment and funding strategy	Mercer / Hymans Robertson / Investment Managers	Annual
Scenario analysis (annual high-level review of suitability and triennial full analysis)	Mercer / Hymans Robertson	Annual
Actuarial valuation	Mercer / Cardano	Triennial

Trustee update

The DBC has spent dedicated time during the year to analysing climate-related risks and opportunities for the Trust's investments. This has been factored into regular strategy review work for the DB and DC Sections of the Trust.

The DBC, with the support of Trustee Services and Mercer, has engaged with its investment managers who were unable to provide meaningful climate-related data as part of the annual reporting process.

The Trustee has reviewed the continued appropriateness of the climate scenario analysis carried out last year (for the DB Section) and in 2021 (for the DC Section). The Trustee has elected not to re-run the analysis for either section (See the *Strategy* section of the report for more details).

As part of documenting its RI Policy, the Trustee has set out an ambition to have a Net Zero target and intends to work with its advisers to define more granular targets over the coming Scheme Year.

The Trustee is in the process of considering changes to the Trust's investment strategy for both the DB and DC Sections, and climate risk will be factored into these discussions. For example, for the DB Section of the Trust the ability to target 'Net Zero' emissions has been considered when comparing different asset class options.

Risk management

Activity	Adviser / supplier support	Frequency of review
Identify, assess and manage key climate-related risks	Mercer / Investment Managers	Ongoing
Consider the prioritisation of those climate-related risks, and the management of the most significant in terms of potential loss and likelihood	Mercer	Annual

Trustee update

The Trustee has processes in place for identifying and assessing climate-related risks. Climate risk management is integrated into the ongoing risk management activities of the Trust via the risk register, the climate risk management plan included in this report and through regular monitoring provided by the Trust's advisers.

The Trustee carries out quantitative climate scenario analysis at least triennially, which helps it to focus on the risks that pose the most significant impact. The Trustee makes a qualitative assessment of climate-related risk via an investment manager questionnaire, which is carried out separately to this TCFD report.

Metrics and Targets

Activity	Adviser / supplier support	Frequency of review
Agree / review approach for reported carbon metrics	Mercer	Annual
Agree / review target	Mercer	Annual
Obtain data for agreed metrics	Mercer / Investment Managers	Annual

Trustee update

For this report the Trustee has collected and reported the carbon metrics associated with the Trust's assets, where possible, with the assistance of Trustee Services and Mercer. The Trustee has also reviewed the target, which was set last year, and consider it to still be appropriate. More details can be found in the *Metrics and Targets* section.



Metrics & Targets

Metrics help to inform our understanding and monitoring of the Scheme's climate-related risks. Quantitative measures of the Scheme's climate-related risks, in the form of both greenhouse gas emissions and non-emissions-based metrics, help us to identify, manage and track the Scheme's exposure to the financial risks and opportunities climate change will bring.



Our climate-related metrics

The Trustee uses quantitative measures to help it understand and monitor the Trust's exposure to climate-related risks. Measuring the greenhouse gas emissions related to the Trust's assets (to the extent possible) is a key way for the Trustee to assess our exposure to climate change.

Greenhouse gases are produced in a range of ways, for example by burning fossil fuels, meat and dairy farming, and some industrial processes. When greenhouse gases are released into the atmosphere, they trap heat in the atmosphere causing global warming, contributing to climate change.

Greenhouse gases are categorised into three types or 'scopes' by the Greenhouse Gas Protocol, the world's most used greenhouse gas accounting standard.

Scope 1

All direct emissions from the activities of an organisation which are under their control; these typically include emissions from their own buildings, facilities and vehicles.

Scope 2

These are the indirect emissions from the generation of electricity purchased and used by an organisation.

Scope 3

All other indirect emissions linked to the wider supply chain and activities of the organisation from outside their own operations – from the goods it purchases to the disposal of the products it sells.

In line with the prior reporting year, the Trustee is required to report Scope 1, 2 and 3 emissions (as far as the Trustee is able to do so). Scope 3 emissions are often the largest proportion of an organisation's emissions, but they are also the hardest to measure. The complexity and global nature of an organisation's value chain make it hard to collect accurate data.

For more explanation about GHG emissions, please see the appendix.



Climate-related metrics

In its first year of TCFD reporting, the Trustee decided what metrics to report on annually; these are described below.



Total Greenhouse Gas emissions

The total greenhouse gas emissions associated with the portfolio (to the extent data is available). It is an absolute measure of carbon output from the Scheme's investments and is measured in tonnes of carbon dioxide equivalent (tCO₂e).



Carbon footprint

Carbon footprint is an intensity measure of emissions that takes the total GHG emissions and weights it to take account of the size of the investment made. It is measured in tonnes of carbon dioxide equivalent per million pounds invested (tCO₂e/£m).



Data quality

A measure of the proportion of the portfolio that the Trustee has high quality data for (i.e. data which is based on verified, reported or reasonably estimated emissions).



Binary target measurement

A metric which shows how much of the Scheme's assets are assessed as being aligned with a climate change goal of limiting the increase in the global average temperature to 1.5°C above pre-industrial levels.

It is measured as the percentage of underlying portfolio investments with a declared net-zero or Paris-aligned target or are already net-zero or Paris-aligned.

Legal disclosure required:

The metrics which the trustees have calculated and, if the trustees have not been able to obtain data to calculate the metrics for all of the assets of the scheme, why this is the case; (para. 27 (n))

Paragraph 18. Trustees must in each scheme year, as far as they are able— (a) obtain the scope 1, scope 2 and scope 3 greenhouse gas emissions attributable to the scheme's assets; (b) use the data obtained to calculate their selected absolute emissions metric and selected emissions intensity metric; and (c) use the metrics they have calculated to identify and assess the climate-related risks and opportunities which are relevant to the scheme.

Paragraph 20. Trustees must in each scheme year, as far as they are able— (a) obtain the data required to calculate their selected additional climate change metric; (b) use the data obtained to calculate that metric in relation to the scheme's assets; and (c) use the metric they have calculated to identify and assess the climate-related risks and opportunities which are relevant to the scheme.

The carbon metrics

DB Section

Manager / Mandate	Assets (£m)	Total GHG emissions (tCO ₂ e)		Carbon footprint (tCO ₂ e/£m)	
		Scopes 1 & 2	Scope 3	Scopes 1 & 2	Scope 3
LGIM / Liability Driven Investments	2,034	151,681	-	74.6 ¹	-
ICM / Private Credit	9	3,488	-	383	-
Abrdn / Infrastructure	82	1,747	-	22	-
Ancala / Infrastructure	44	8,039	-	183	-
DB Other Assets	1,817	Not Available			

Source: Investment managers, Mercer estimates. Data as at 31/03/2024. Figures may not sum due to rounding.

2023 figures are not included given change in the assets covered by the analysis over the year.

¹ tCO₂e/GDP: carbon footprint for the LDI mandate is not directly comparable to carbon footprint for non-sovereign bonds.

Commentary:

- The availability of data for the DB Section remains constrained, with coverage falling from last year (see later). As such, the metrics show the Trust's GHG emissions to be lower than they really are.
- The Trustee is unable to report on Scope 3 emissions for the DB Section of the Trust. This is because the Trust's managers continue to be unable to provide Scope 3 data. This is primarily due to the nature of the assets held by the Trust at the effective date of this report; there is not an industry consensus for calculating Scope 3 emissions for sovereign bonds (LDI), and it is challenging to get any emissions data for private market mandates and as such Scope 3 will likely be some years away.
- Reporting of Scope 3 emissions should be possible in future given the agreed changes to the DB Section's investment strategy.

DC Section

Manager / Mandate	Assets (£m)		Total GHG emissions (tCO ₂ e)				Carbon footprint (tCO ₂ e/£m)			
	2023	2024	Scopes 1 & 2		Scope 3		Scopes 1 & 2		Scope 3	
			2023	2024	2023	2024	2023	2024	2023	2024
Global Equity	897	1,211	80,000	83,081	-	809,580	90	71	-	706
Diversified Growth	127	176	9,700	14,453	-	74,848*	100	94	-	816*
Cash	95	120	18	149	-	26,401	0.4	1.3	-	319

2024 data: source: investment managers, Mercer estimates. Data as at 31/03/2024. Figures may not sum due to rounding.

2023 data: source: investment managers, AON. Figures are included for completeness, where available, given the figures should be comparable on a like-for-like basis.

*Scope 3 data not available for BlackRock Market Advantage Fund; figure represents only the c2/3 allocation to the LGIM Diversified Fund and the figure has not been scaled.

Commentary:

- Over the last year total GHG emissions across each of the three funds held within the default investment strategy for the DC Section increased, which is in line with expectations given the increase in asset values over the periods.
- However, the carbon intensity of the Global Equity and Diversified Growth funds (as measured by the carbon footprint) decreased by c20% and c6% over the period due to decarbonisation within the underlying funds included in these strategies.
- The Trustee is able to show Scope 3 emissions for the majority of the DC assets for the first time this year. As expected, Scope 3 emissions make up a large proportion of total emissions, although the reliability of Scope 3 emissions data remains poor compared to Scope 1 and 3 emissions.

Binary target measurement

Section	Assets at 31 Mar 24 (£k)	Data coverage	Binary target measurement
DB LDI	2,034	0%	Not applicable
DB Other assets	1,952	0%	Not applicable
DC Assets	1,507	100%	43%

Source: Investment managers / Mercer. Data as at 31 March 2024.

Data coverage is the proportion of assets for which we received a binary target measurement.

DC Assets figure represents the assets included in the analysis i.e. the funds included in the default investment strategy.

Commentary

- The Trust's DB managers were not able to provide a binary target measurement due to the nature of the portfolios that they manage (e.g. the LDI mandate is made up of sovereign bonds and associated instruments). Binary target measurement is not applicable to sovereign bonds; although governments may have commitments to net-zero emissions, these are not reviewed and considered in the same way as corporate net zero targets/decarbonisation plans (e.g. they are not verified by the independent Science-Based Targets Initiative or "SBTi", which is used as part of the binary target measurement for corporate issues).
- The binary target measurement for the DC funds that are included in the default investment strategy has increased slightly compared to the prior year (from 40%). The Trustee will focus on longer-term trends when assessing progress, and notes that, in general, there has been a steady increase in companies setting climate change goals that are aligned with achieving Net Zero.
- The Trustee is reviewing the DC Section's investment strategy and as part of this is considering investment strategy options with a more explicit focus on ESG and climate issues; all else equal, this may serve to positively impact the proportion of investments within the DC Section that are aligned with the commitment to achieve 'Net Zero' by 2050.
- As noted previously in this report the Trustee has now set an overarching 2050 'Net Zero' target for the Trust. As such, over the coming years there will be increasing focus across both the DB and DC Sections of the Trust on allocating to assets that are aligned with the goals of the Paris Agreement, as measured by the BTM metric.

BTM definition:

A metric which shows how much of the Scheme's assets are aligned with a climate change goal of limiting the increase in the global average temperature to 1.5°C above pre-industrial levels.

It is measured as the percentage of underlying portfolio investments with a declared net-zero or Paris-aligned target or are already net-zero or Paris-aligned.

Looking to the future: The Trust's climate-related target

Climate-related targets help the Trustee track its efforts to manage the Scheme's climate-change risk exposure.

In previous reporting years, the Trustee set a target for improving the data quality of scopes 1 and 2 emissions data. Without meaningful data from the investment managers, it is hard for the Trustee to measure its climate-risk exposure. The Trustee therefore consider it important to set a target to improve the availability and quality of GHG emissions data from the managers.

DB	Data quality target	Actual data quality
	100%	54%
	Of scopes 1&2 by 2032	Of scopes 1&2 at 31 March 2024
DC	Data quality target	Actual data quality
	100%	92%
	Of scopes 1&2 by 2027	Of scopes 1&2 at 31 March 2024

Based on the quality of the metrics data we received from our managers this year, the Trustee believes that the target remains appropriate at this time.

Year-on-year progress against target

The Scheme's performance against the target will be measured and reported on every year. Over time, this will show the Scheme's progress against the target.

Section	31 March 2022 Baseline	31 March 2023	31 March 2024
DB	25%	64%	54%
DC	69%	90%	92%

Data quality decreased for the DB Section over the year, reflecting changes in the assets held and some legacy managers no longer being able to provide data. We expect data quality for the DB Section to improve over the next few years as the investment strategy evolves and the proportion of liquid assets (such as equities and corporate credit where data quality is high) increases.

Data quality increased slightly for the DC Section over the period, moving us closer towards the 100% target. Last year the Trustee accelerated the timescale

Legal disclosure required:

The target which the trustees have set in and the performance of the scheme against that target (Regulation 27 (o))

Paragraph 22. Trustees must in the first scheme year, set a target for the scheme in relation to one of the metrics which they have selected to calculate.

Paragraph 24. Where trustees have determined that a target should be replaced, they must set a new target for the scheme in relation to one of the metrics which they have selected to calculate.

for achieving this target from 2032 to 2027, and the Trustee would hope and expect to see incremental progress towards that level over the next few years.

What are we doing to reach the target?

The Trustee will seek to meet the specified data quality target, whilst being mindful of any unintended consequences. The Trustee will factor in the investment strategy and the Trust's objectives when carrying out actions to make progress towards reaching the target.

To reach its target, the Trustee plans to:

- 1) Reduce the allocation to managers who provide low data quality; this is expected to happen naturally for the DB Section as the Trust's investment strategy evolves and becomes more liquid over time (as data quality in liquid asset classes such as public equities is materially better than private market asset classes).
- 2) To improve consistency, encourage managers to use industry-standard templates when reporting on carbon metrics.
- 3) Continue engagements with the Trust's managers.

Future priorities

As stated in this report the Trustee has set an overarching target of 'net zero' emissions by 2050 across the DB and DC Sections of the Trust, which will guide future investment strategy, manager selection and portfolio construction decisions.

The Trustee will be considering whether to set any shorter-term targets as part of the pathway towards net zero over the coming year; any additional targets in this regard will be set out in next year's TCFD report.

Appendices

Appendix A – Glossary

Governance	refers to the system by which an organisation is directed and controlled in the interests of shareholders and other stakeholders. ¹ Governance involves a set of relationships between an organisation's management, its board, its shareholders, and other stakeholders. Governance provides the structure and processes through which the objectives of the organisation are set, progress against performance is monitored, and results are evaluated. ²
Strategy	refers to an organisation's desired future state. An organisation's strategy establishes a foundation against which it can monitor and measure its progress in reaching that desired state. Strategy formulation generally involves establishing the purpose and scope of the organisation's activities and the nature of its businesses, taking into account the risks and opportunities it faces and the environment in which it operates. ³
Risk management	refers to a set of processes that are carried out by an organisation's board and management to support the achievement of the organisation's objectives by addressing its risks and managing the combined potential impact of those risks. ⁴
Climate-related risk	refers to the potential negative impacts of climate change on an organisation. Physical risks emanating from climate change can be event-driven (acute) such as increased severity of extreme weather events (e.g., cyclones, droughts, floods, and fires). They can also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns (e.g., sea level rise). Climate-related risks can also be associated with the transition to a lower-carbon global economy, the most common of which relate to policy and legal actions, technology changes, market responses, and reputational considerations. ⁵
Climate-related opportunity	refers to the potential positive impacts related to climate change on an organisation. Efforts to mitigate and adapt to climate change can produce opportunities for organisations, such as through resource efficiency and cost savings, the adoption and utilization of low-emission energy sources, the development of new products and services, and building resilience along the supply chain. Climate-related opportunities will vary depending on the region, market, and industry in which an organisation operates. ⁶

¹ A. Cadbury, [Report of the Committee on the Financial Aspects of Corporate Governance](#), London, 1992.

² OECD, [G20/OECD Principles of Corporate Governance](#), OECD Publishing, Paris, 2015.

³ TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017

⁴ Please refer to footnote 6.

⁵ Please refer to footnote 6.

⁶ Please refer to footnote 6.

Greenhouse gas emissions scope levels⁷ Greenhouse gases are categorised into three types or 'scopes' by the Greenhouse Gas Protocol, the world's most used greenhouse gas accounting standard.

Scope 1 refers to all direct GHG emissions.

Scope 2 refers to indirect GHG emissions from consumption of purchased electricity, heat, or steam.

Scope 3 refers to other indirect emissions not covered in Scope 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions. Scope 3 emissions could include: the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g., transmission and distribution losses), outsourced activities, and waste disposal.⁸

Value chain refers to the upstream and downstream life cycle of a product, process, or service, including material sourcing, production, consumption, and disposal/recycling. Upstream activities include operations that relate to the initial stages of producing a good or service (e.g., material sourcing, material processing, supplier activities). Downstream activities include operations that relate to processing the materials into a finished product and delivering it to the end user (e.g., transportation, distribution, and consumption).⁹

Climate scenario analysis is a process for identifying and assessing a potential range of outcomes of future events under conditions of uncertainty. In the case of climate change, for example, scenarios allow an organisation to explore and develop an understanding of how the physical and transition risks of climate change may impact its businesses, strategies, and financial performance over time.¹⁰

Net zero means achieving a balance between the greenhouse gases emitted into the atmosphere, and those removed from it. This balance – or net zero – will happen when the amount of greenhouse gases add to the atmosphere is no more than the amount removed.¹¹

⁷ World Resources Institute and World Business Council for Sustainable Development, [The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard \(Revised Edition\)](#), March 2004.

⁸ PCC, [Climate Change 2014 Mitigation of Climate Change](#), Cambridge University Press, 2014.

⁹ TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017

¹⁰ Please refer to footnote 12.

¹¹ Energy Saving Trust, [What is net zero and how can we get there? - Energy Saving Trust](#), October 2021

Appendix B – An explanation of climate risk categories

Climate-related risks are categorised into physical and transitional risks. Below are examples of transition and physical risks.

Transition risks

Transition risks are those related to the ability of an organisation to adapt to the changes required to reduce greenhouse gas emissions and transition to renewable energy. Within transition risks, there are four key areas: policy and legal, technological innovation, market changes, and reputational risk.

Policy and legal

Examples

Increased pricing of GHG emissions
Enhanced emissions-reporting obligations
Regulation of existing products and services

Potential financial impacts

Increased operating costs (e.g. higher compliance costs, increased insurance premiums)
Write-offs, asset impairment and early retirement of existing assets due to policy changes

Technology

Examples

Cost to transition to lower emissions technology
Unsuccessful investments in new technologies

Potential financial impacts

Write-offs and early retirement of existing assets
Capital investments in technology development
Costs to adopt new practices and processes

Market

Examples

Changing customer behaviour
Uncertainty in market signals
Increased cost of raw materials

Potential financial impacts

Reduced demand for goods and services due to shift in consumer preferences.
Abrupt and unexpected increases in energy costs.
Re-pricing of assets (e.g., fossil fuel reserves, land valuations, securities valuations).

Reputational

Examples

Stigmatisation of sector
Increased stakeholder concern or negative stakeholder feedback

Potential financial impacts

Reduced revenue from decreased demand for goods and services.
Reduced revenue from decreased production capacity (e.g., delayed planning approvals, supply chain interruptions)
Reduced revenue from negative impacts on workforce management and planning

Physical Risks

Physical risks refer to the physical impacts of climate change on a firm's operations. They directly impact a firm's ability to perform its function due to climate disruption. They fall into two subcategories: acute and chronic; acute referring to extreme climate events such as flooding and wildfires, and chronic referring to trends over time such as an increase in temperature or ocean acidification.

Acute

Examples

- Extreme heat
- Extreme rainfall
- Floods
- Droughts
- Storms (e.g., hurricanes)

Chronic

Examples

- Water stress
- Sea level rises
- Land degradation
- Variability in temperature
- Variability in precipitation



Appendix C – Climate scenario modelling assumptions

The climate scenarios were developed by Aon and are based on detailed assumptions. They are only illustrative and are subject to considerable uncertainty. They consider the exposure of the Trust to climate-related risks and the approximate impact on asset/liability values over the long term.

The purpose of the model is to consider the long-term exposure of the Trust to climate-related risks and the pattern of asset returns over the long term.

- i. In particular, the model considers different climate change scenarios and the approximate impact on asset/liability values over the long term.

Aon's model assumes a deterministic projection of assets and Long-Term Funding Target liabilities, using standard actuarial techniques to discount and project expected cashflows.

- i. It models the full yield curve as this allows for an accurate treatment of the liabilities and realistic modelling of the future distribution of interest rates and inflation. It also allows us to truly assess the sensitivities of the assets and liabilities to changes in interest and inflation rates.
- ii. The parameters in the model vary deterministically with the different scenarios.
- iii. Note – no allowance is made for accrual of future benefits in this modelling.

The liability update and projections are considered appropriate for the analysis. However, they are approximate, and a full actuarial valuation carried out at the same date may produce a materially different result. The liability update and projections are not formal actuarial advice and do not contain all the information needed to make a decision on the contributions payable or investment strategy.

The model intends to illustrate the climate-related risks the Trust is currently exposed to, highlighting areas where risk mitigation could be achieved through changing the portfolio allocation.

- i. Other relevant issues such as governance, costs and implementation (including manager selection and due diligence) must be considered when making changes to the investment strategy.

Investment risk is only captured in the deviance from the Base Case, but this is not the only risk that the Trust faces; other risks include covenant risk, longevity risk, timing of member options, basis risks and operational risks.

The model has been set up to capture recent market conditions and views; the model may propose different solutions for the same strategy under different market conditions.

Data used

The scenario model projects using the following inputs as at 31 December 2022 (as provided by Mercer).

- Market value of assets: £ 4,436m
- Present value of the gilts+0.5% p.a. liabilities: £ 4,985m
- Duration of liabilities: 18.5 years
- Real proportion of the liabilities: 70%
- Benefit outgo in year 1: £167m

The LDI portfolio is assumed to hedge interest rates and inflation up to 78% of the gilts+0.5% basis.

Appendix D – Greenhouse gas emissions in more detail







Greenhouse gases in the atmosphere, including water vapour, carbon dioxide, methane, and nitrous oxide, keep the Earth's surface and atmosphere warm because they absorb sunlight and re-emit it as heat in all directions including back down to Earth. Adding more greenhouse gases to the atmosphere makes it even more effective at preventing heat from leaving the Earth's atmosphere.

Greenhouse gases are vital because they act like a blanket around the Earth making it the climate habitable. The problem is that human activity is making the blanket "thicker". For example, when we burn coal, oil, and natural gas we send huge amounts of carbon dioxide into the air. When we destroy forests, the carbon stored in the trees escapes to the atmosphere. Other basic activities, such as raising cattle and planting rice, emit methane, nitrous oxide, and other greenhouse gases.

The amount of greenhouse gases in the atmosphere has significantly increased since the Industrial Revolution. The Kyoto Protocol¹² identifies six greenhouse gases which human activity is largely responsible for emitting. Of these six gases, human-made carbon dioxide is the biggest contributor to global warming.

Each greenhouse gas has a different global warming potential and persists for a different length of time in the atmosphere. Therefore, emissions are expressed as a carbon dioxide equivalent (CO₂e). This enables the different gases to be compared on a like-for-like bases, relative to one unit of carbon dioxide.

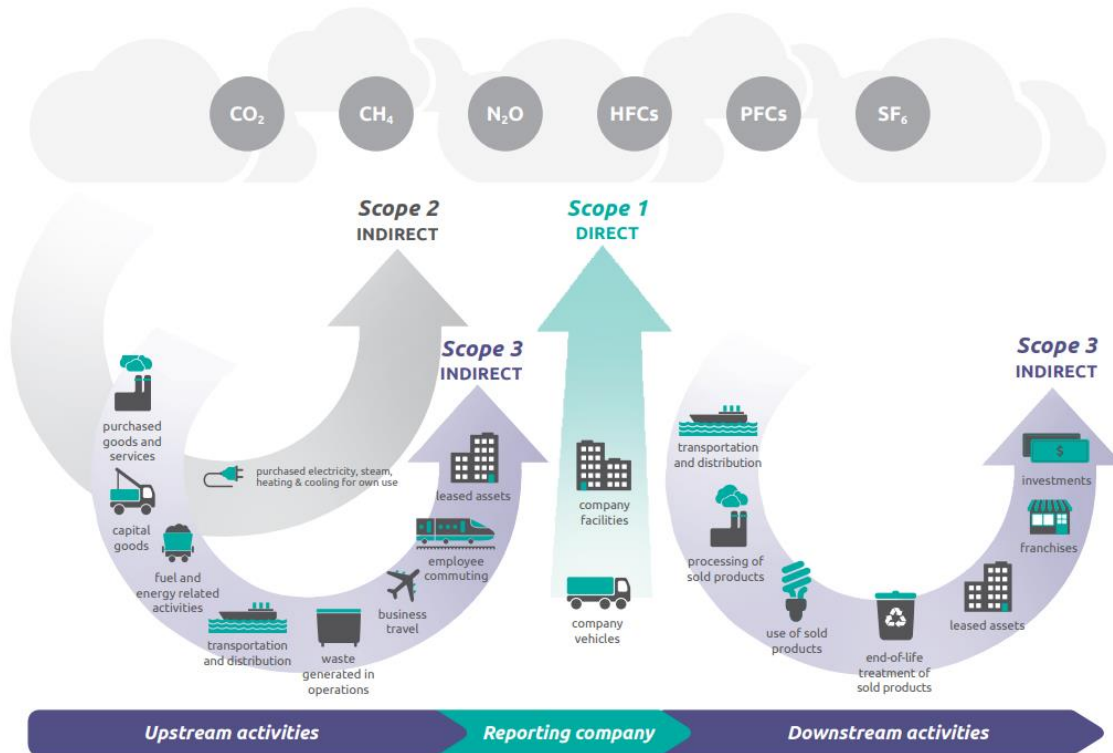
Six main greenhouse gases identified by the Kyoto Protocol

					
Carbon dioxide	Methane	Nitrous oxide	Hydro-fluorocarbons	Per-fluorocarbons	Sulphur hexafluoride
CO ₂	CH ₄	N ₂ O	HFCs	PFCs	SF ₆

¹² https://unfccc.int/kyoto_protocol

Greenhouse gases are categorised into three types or 'scopes' by the Greenhouse Gas Protocol, the world's most used greenhouse gas accounting standard.

Overview of GHG Protocol scopes and emissions across the value chain



Source: Greenhouse Gas Protocol, [Corporate value chain \(scope 3\) Accounting and Reporting Standard](#), 2011

Appendix E – Notes on metrics and targets analysis

Availability of data

- 7 managers provided scopes 1 and 2 emissions data for 10 funds across the DB and DC sections.
- The remainder of the Trust's managers were unable or unwilling to provide any information, or the information they were able to provide was not of sufficient quality to warrant inclusion in this report. As stated in the previous section, there are a number of managers that provided climate data in the prior reporting year which are not able to do so for this reporting period. While this is disappointing to see directionally, there are reasons for this and we expect data quality and availability to improve materially for the DB Section over the next few years as the investment strategy evolves and allocations are built up to more liquid asset classes including equities and corporate credit.
- All 3 DC managers provided binary target measurement data for 6 funds.
- As per last year, analysis for the DC Section was limited to funds that are included in the default investment strategy for DC members (JLP Global Equity, JLP Diversified Growth and JLP Cash funds).

Mercer have not made any estimates for missing data.

The Trustee expects that in the future better information will be available from managers and this improvement will be reflected in the coming years' reporting. The Trustee have engaged with the managers that were unable to supply emissions data to communicate our expectations for better reporting.

The Trustee would note that a number of the Trust's DB mandates are in run off, or are being sold, and for future reporting periods the investment arrangements are expected to be more liquid. The Trustee expects that this will have a positive impact on the proportion of assets that it is able to report against given the nature of the assets that it plans to reinvest run-off/redemption proceeds into.

Notes on the metrics calculations

Carbon metrics

Mercer determined the carbon metrics for the Scheme based on the information provided by the managers. The table below shows for each asset class the broad approach used for calculating each metric.

Asset Class	Approach
Equity and Multi-Asset	Where possible, Mercer used the unaltered data provided by the managers. Where metrics were provided at the total pooled fund level, the Fund's share of absolute emissions was calculated based on the Fund's ownership share of the total pooled fund.

How we collected the data

The Trustee's DB Investment adviser, Mercer, collected the carbon emissions data from our managers on our behalf using the industry standard Carbon Emissions Template ("CET")¹. The CET was developed by a joint industry initiative of the Pension and Life Savings Association, the Association of British Insurers and Investment Association Working Group. The CET provides a standardised set of data to help pension schemes meet their obligations under the Climate Change Governance and Reporting Regulations, and associated DWP Statutory Guidance.

Private Credit	Mercer used the unaltered data provided by the managers.
-----------------------	--

Real Assets

LDI	Provided by the manager as tCO ₂ e/GDP.
------------	--

Where data was provided in USD, Mercer converted this to GBP using the exchange rate as at 31 March 2024.

Binary target measurement

Mercer requested the binary target measurement of each fund from the Trust's investment managers and aggregated the results based on the portion of assets invested in each fund, where appropriate. Mercer does not make any estimates for missing data.