



TCFD

TASK FORCE ON
CLIMATE-RELATED
FINANCIAL
DISCLOSURES

Climate disclosures for year ended 31 December 2023

Produced by: The Trustee of the DB (UK) Pension Scheme

Date: June 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 DB (UK) Pension Scheme's vulnerability to climate-related risks will help us to mitigate the risks and take advantage of any opportunities.

UK regulations require trustees of pension schemes with more than £1bn in assets to meet certain climate governance requirements and publish an annual report on their scheme's climate-related risks.

Better climate reporting should lead to better-informed decision-making on climate-related risks. And on top of that, greater transparency around climate-related risks should increase accountability and provide decision-useful information to investors and beneficiaries.

This report is the annual climate disclosures for the DB (UK) Pension Scheme (the "Scheme") for the year ended 31 December 2023. The four elements covered in the report are:

- Governance:** The Scheme's governance around climate-related risks and opportunities.
- Strategy:** The potential impacts of climate-related risks and opportunities on the Scheme'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 report for the Scheme has been prepared by DB Trustee Services Limited (the "Trustee"), in accordance with the regulations set out under The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 (the "Regulations").

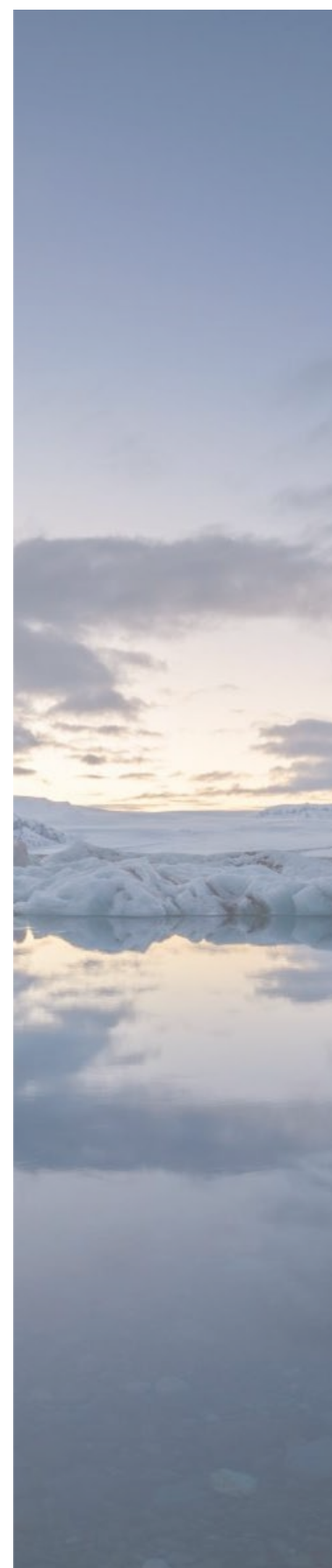


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Executive summary

This report sets out the actions that we, the Trustee, have taken to understand the potential impact climate change could have on the Scheme.

The Trustee has worked closely with our investment consultant to identify the climate-related risks and opportunities faced by the Scheme, and to understand ways the Trustee can manage and mitigate those risks.

Overview of the Scheme

The Scheme is set up as a hybrid Scheme, which has two sections, a Defined Benefit (“DB”) Section and a Defined Contribution (“DC”) Section.

The DB Section invests across a range of assets, and within this report the Trustee considers the impact of climate-related risks on those asset classes, the investment strategy and potential impact on the funding of the Scheme.

For the DC Section, the Trustee has focused its attention on each ‘popular arrangement offered’. A ‘popular arrangement’ is defined as one in which £100m or more is invested, or which accounts for 10% or more of the assets used to provide money purchase benefits.

The Trustee has been supported by its investment consultant, Aon Investments Limited (“Aon”) in producing its Taskforce on Climate-related Financial Disclosures (“TCFD”) report.



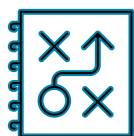
Governance

The Scheme has a Defined Benefit (“DB”) Section and a Defined Contribution (“DC”) Section.

- The DB Section is invested in a range of asset classes including UK Credit Bonds, a derivative based Credit mandate and Liability Driven Investment (“LDI”). Alongside this, the Scheme also invests in Bulk Purchase Annuities.
- The DC Section is primarily invested in following funds: LGIM World (ex-UK) Equity Index Fund and LGIM UK Equity Index Fund. These are described throughout the report as the LGIM equity funds.

The Trustee is ultimately responsible for the oversight of all strategic matters relating to the Scheme, this includes climate-related risks and opportunities.

The Trustee receives support for the day-to-day oversight of the Trustee’s Climate Risk Management framework from the ESG Working Group (“WG”).



Strategy

- Our qualitative analysis of climate-related risks and opportunities showed that the asset classes in which the Scheme invests are impacted to some degree by climate-related risks. Over time, there is currently an expectation that the impact of physical and transition risks will increase over time.
- The Trustee also identified numerous investment opportunities for the different asset classes.
- The Trustee undertook an annual review of the climate scenario analysis for both the DB and DC Sections, which concluded that the analysis previously undertaken was still appropriate. The output of the climate scenario analysis showed:
 - The DB Section has a reasonable degree of resilience relative to climate-related risks. The resilience was primarily driven by the low risk strategy and high levels of hedging.
 - For the DC Section, it was noted that the timings of climate shocks are key in determining outcomes for members – these may impact younger members differently to those which are close to retirement.



Risk Management

- The Trustee has established a process to identify, assess and manage the climate-related risks and opportunities the Scheme is exposed to. This is integrated into the Scheme's wider risk management framework.
 - During the year, the DB Section implemented another Bulk Annuity policy with an insurer. The Trustee considered the ESG credentials, including climate change as part of the due diligence process.
 - The Trustee expanded the self-select fund range available to Scheme members within the DC Section by adding the LGIM Future World Global Equity Index Fund. The Fund incorporates Environment, Social and Governance tilts to the investments.
- The Trustee's Climate Risk Management framework is set out on pages 26-28, which assists with the ongoing management of climate-related risks and opportunities.



Metrics and Targets

The Trustee has disclosed information on four climate-related metrics for each of the DB and DC Sections of the Scheme:

- Total Greenhouse Gas (“GHG”) Emissions.
- Carbon Footprint.
- Data Coverage.
- Portion of the portfolios which have either Net Zero, or Paris aligned targets.

The Trustee has also set the following targets for the DB Section of the Scheme:

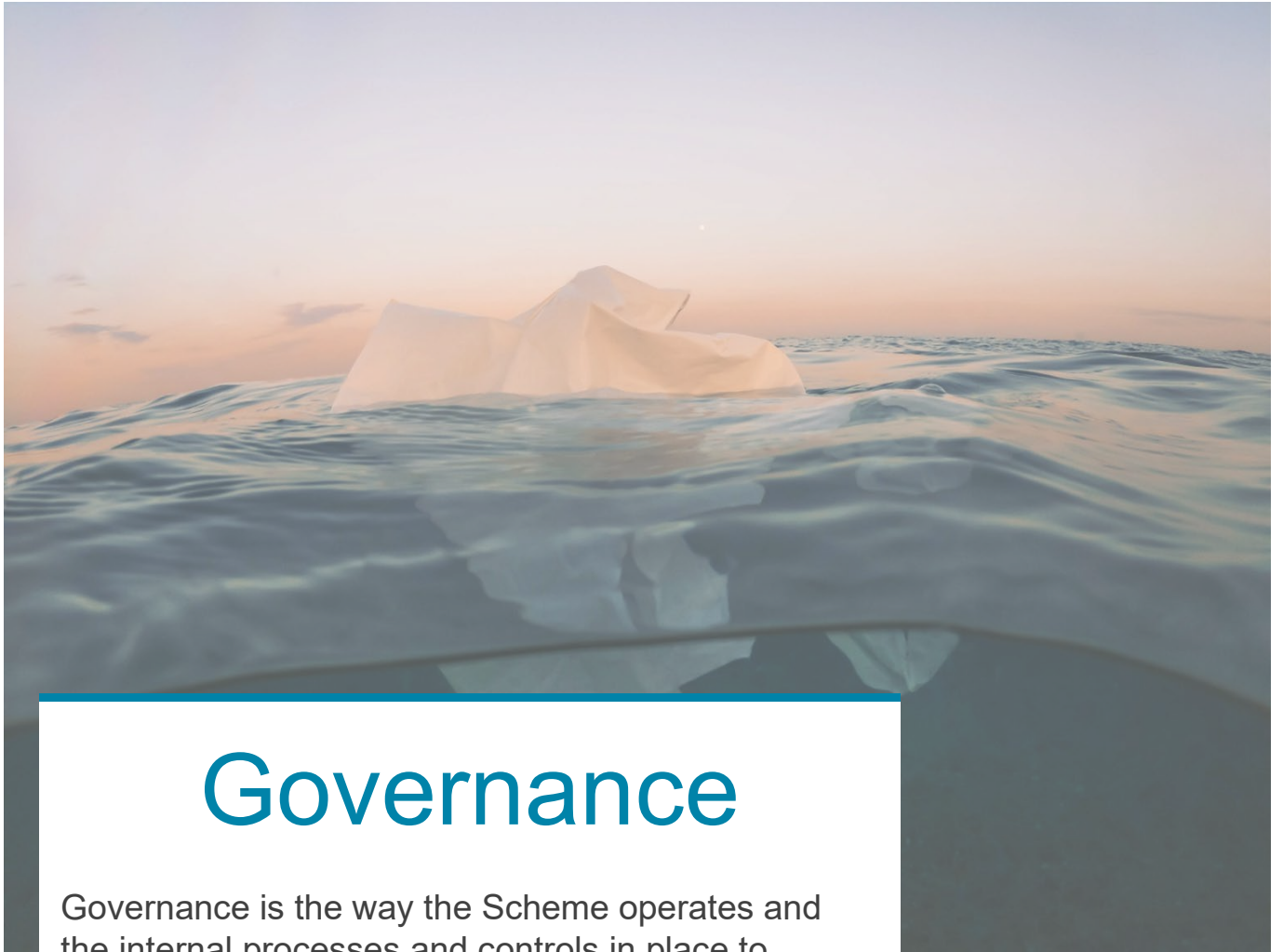
- Improve the data coverage (scopes 1& 2 GHG emissions) for the UK Credit Bonds for the DB uninsured assets to above 90% by 2026.
- Improve the portion of UK Credit Bonds for the DB uninsured assets which have net zero or Paris aligned targets to 40% by 2026.

The Trustee reviewed the metrics and the targets and believes they remain appropriate, given the progress made this reporting year.

We hope you enjoy reading this report and understanding more about how we are managing climate-related risks and opportunities within the Scheme.

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on behalf of the Trustee of the DB (UK) Pension Scheme.





Governance

Governance is the way the Scheme 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 Scheme-wide decisions, such as those relating to the investment strategy or how it is implemented, funding, the ability of the sponsoring employer to support the Scheme and liabilities.



Our Scheme's governance

As the Trustee of the Scheme, we are responsible for overseeing all strategic matters related to the Scheme. This includes the governance and management frameworks relating to environmental, social and governance (“ESG”) considerations and climate-related risks and opportunities.

Given its importance, the Trustee has not identified one individual to specifically be responsible for the Trustee's response to climate risks and opportunities. Rather, the Trustee has collective responsibility for setting the Scheme's climate change risk framework. The Trustee is supported by the ESG Working Group which provide updates on material climate-related developments on a regular basis.

The Trustee has discussed and agreed its climate-related beliefs and overarching approach to managing climate change risk. Details are set out in the Statement of Investment Principles (“SIP”), which is reviewed annually by the Trustee.

Our climate beliefs

We believe that the risks associated with climate change can have a materially detrimental impact on the Scheme's investment returns and, as such, the Trustee seeks to integrate assessments of climate change risk into its investment decisions.

We believe that climate-related factors may create investment opportunities. We will seek to capture, where possible, opportunities through our investment portfolio where it is appropriately aligned with our strategic objectives and fiduciary duty.

The most appropriate timeframes for the Scheme are as follows:

- short-term: 1-2 years
- medium-term: 3-8 years
- long-term: 9+ years

Climate-related risks and opportunities are assessed over the above timeframes. Where appropriate, the Trustee considers transition and physical risks separately.

Climate-related risks and opportunities are integrated into the Trustee's risk management framework so it can maintain oversight of the climate-related risks and opportunities that are relevant to the Scheme.

The Trustee receives training, on at least an annual basis, or more frequently if required, on climate-related issues to ensure that it has the appropriate degree of knowledge and understanding on these issues to support good decision-making.

Specific to the Defined Benefit (“DB”) Section only

The Trustee, in conjunction with its advisers, ensures that actuarial and covenant advice adequately incorporate climate-related risk factors where they are relevant and material.

The Trustee also ensures that funding advice adequately incorporates climate-related risk factors where they are relevant and material.

Specific to the Defined Contribution (“DC”) (or Money Purchase) Section only

The Trustee has delegated day-to-day management of the DC Section assets to its investment managers, via a number of pooled funds accessed through investment platforms from Legal & General Investment Management (“LGIM”), Abrdn (formerly “Aberdeen Standard”), Standard Life Assurance, Prudential, Utmost Life and Pensions, Zurich, Abbey Life, Henderson and Aberdeen Unit Trust.

The statutory guidance issued by the Department for Work and Pensions (“DWP”) requires trustees to consider climate-related risks and opportunities for each ‘popular arrangement offered’. A ‘popular arrangement’ is defined as one in which £100m or more is invested, or which accounts for 10% or more of the assets used to provide money purchase benefits. For the Scheme, this would mean the following funds would be in scope:

- LGIM World (ex-UK) Equity Index Fund; and
- LGIM UK Equity Index Fund.

These are described throughout the report as the LGIM equity funds.

As the DC assets are invested exclusively in pooled funds, the Trustee will work closely with the investment manager to understand how they can support in providing the necessary information and data required to meet the requirements of the TCFD.

Role of the Trustee

Given its importance, the Trustee has not identified one individual to specifically be responsible for the Trustee’s response to climate risks and opportunities. Rather, the Trustee has collective responsibility for setting the Scheme’s climate change risk framework.

The Trustee seeks to ensure that any investment decisions appropriately consider climate-related risks and opportunities within the context of the Scheme’s wider risk and return requirements and are consistent with the climate change policy as set out in the SIP.

Implementation is detailed later in this report, but key activities undertaken by the Trustee, with the support of its advisers, are:

- Ensuring investment proposals consider the impact of climate risks and opportunities.
- Seeking investment opportunities which enhance the ESG and climate change focus of the Scheme’s portfolio, where appropriate.

Trustee update

The Trustee expanded the self-select fund range available to Scheme members within the DC Section.

The Trustee added the LGIM Future World Global Equity Index Fund. The Fund incorporates Environment, Social and Governance tilts to the investments.

The Fund also has a targeted environmental engagement process via LGIM’s Climate Impact Pledge. The Climate Impact Pledge targets companies which are crucial to the transition to a low carbon economy.

- Engaging with the Scheme’s investment managers to understand how climate risks are considered in their investment approach.
- Working with the investment managers to disclose, on an ongoing basis, relevant climate-related metrics as set out in the TCFD recommendations.
- Ensuring that stewardship activities are being undertaken appropriately on the Scheme’s behalf.

Role of the ESG Working Group

The ESG Working Group (“WG”) is comprised of a sub-group of Trustee Directors, to help the Trustee align the Scheme to the climate governance requirements.

The WG was given a mandate to recommend, and maintain, an appropriate climate risk framework, in line with the relevant regulations, to the Trustee. The WG is supported by the Trustee’s advisers.

How we work with our advisers

The Trustee expects its advisers and investment managers to bring important climate-related issues and developments to its attention in a timely manner. The Trustee expects its advisers and investment managers to have the appropriate knowledge on climate-related matters.

The Trustee annually reviews the quality of its advisers’ provision of advice and support on climate-related issues. For the Trustee’s investment consultant, this is part of the annual review of investment consultant objectives.

Investment consultant – the Trustee’s investment consultant, Aon, provides investment-related strategic and practical support to the WG and the Trustee in respect of the management of climate-related risks and opportunities. This includes provision of regular training and updates on climate-related issues, climate change scenario modelling and ESG ratings.

The Trustee will monitor the quality of climate-related support and advice from its investment consultant as part of an annual review against the investment consultant’s objectives.

Scheme Actuary – the Scheme Actuary will help the Trustee assess the potential impact of climate change risks on the Scheme’s funding assumptions where appropriate.

As part of its assessment of its advisers’ climate-related competence, the Trustee will seek to understand how climate-related factors affect the funding assumptions used for the Scheme, and which sources of expertise the Scheme Actuary has used in determining the appropriate assumptions to use.

Covenant adviser – the Trustee Board’s covenant adviser helps the Trustee understand the potential impacts of climate change risk on the sponsor covenant of the principal Employer, Deutsche Bank Group Services (UK) Limited over time and consider this alongside the Scheme’s de-risking journey.

Trustee update

The Trustee has collected scope 3 emissions data from its investment managers to meet the additional requirement under the TCFD framework. It has been supported in this exercise by the ESG WG and its investment consultant.

Over the reporting year, the Trustee has made changes in the DB Section, the purpose being, to reduce risk in the Scheme by selecting an insurer to secure a portion of scheme member benefits.

As part of the process to select the insurer, the Trustee considered the ESG credentials, including climate change as part of the due diligence process.



Strategy

It is crucial to think strategically about the climate-related risks and opportunities that will impact the Scheme if we are to stand a chance of mitigating the effects of climate change.

Assessing the climate-related risks and opportunities the Scheme is exposed to is key to understanding the impact climate change could have on the Scheme in the future.



What climate-related risks are most likely to impact the Scheme?

We carry out a qualitative risk assessment of the asset classes the Scheme is invested in. From this we identify which climate-related risks could have a material impact on the Scheme. We also identify suitable climate-related opportunities.

Given the number of asset classes used in the Scheme, across the DB and DC Sections, the Trustee completed this exercise to the best of its ability. To help the Trustee with its assessment, the Trustee surveyed its investment managers asking them to rate the climate-related risks and opportunities they believe their funds are exposed to.

Our investments

The Scheme's DB investment portfolio consists of UK Credit Bond funds and LDI.

The Scheme's asset allocation is as follows:

DB Section:

Asset Class	LDI	UK Credit Bonds
Strategic Allocation	43%	57%

Asset allocations as at 31 Dec 2023. Cash has been excluded, due to the lack of relevance of this asset class in the context of climate risk.

DC Section:

When undertaking the climate-related risk assessment, the Trustee has looked to cover the popular arrangements within the Scheme. The funds considered as part of this assessment include, which invest in equities:

- LGIM UK Equity Index
- LGIM World (ex-UK) Equity Index

Trustee update

In 2022, we asked our investment managers to assess their exposure to climate-related risks for the funds the Scheme is invested in. This year, we asked our managers to review their risk assessments and update them if necessary. Our qualitative risk assessment is based on the updated information from the managers.

How the risk assessment works



Risk categories

In the analysis, the climate-related risks have been categorised into physical and transition risks.

Transition risks are associated with the transition towards a low-carbon economy.

Physical risks are associated with the physical impacts of climate change on companies' operations.



Ratings

The analysis uses a RAG rating system where:

Red denotes a high level of financial exposure to a risk.

Amber denotes a medium level of financial exposure to a risk.

Green denotes a low level of financial exposure to a risk.



Time horizons

We assessed the climate-related risks and opportunities over multiple time horizons considering the liabilities of the Scheme and its obligations to pay benefits. We decided the most appropriate time horizons for the Scheme are:

- short term: 1-2 years
- medium term: 3-8 years
- long term: 9+ years

More details about transition and physical risks can be found in the [Appendix](#).

Setting timeframes

When deciding the relevant timeframes for the entire Scheme, the Trustee has taken into account the liabilities of the DB Section and its obligations to pay benefits. The Trustee has based the short-, medium- and long-term timeframes on its long-term journey plan.

The rationale for each timescale can be defined as follows:

- Short-term: 1-2 years. This has been considered relative to when the Trustee expects the Scheme to undertake its next de-risking step on its long-term journey plan.
- Medium-term: 3-8 years. This aligns to the next stage on the Trustee's journey plan and de-risking.
- Long-term: 9+ years. This aligns to the final stage of the Trustee's journey plan, when the Trustee expects the Scheme to be fully de-risked.

The Trustee has determined these timeframes are appropriate for the DC Section, given the profile of its members.

Climate-related risk assessment

Key conclusions

The Trustee has completed a best endeavours exercise to analyse the climate-related risks of each asset class in which it invests. The Scheme invests across a range of different asset classes and investment managers via both segregated mandates and pooled funds. As such, the Trustee's ability to influence how each manager incorporates climate-related issues is varied, with limited influence via pooled funds.

The UK Credit Bonds (DB Section) assessment of the short- to long-term physical and transition risks has improved, particularly in the long-term where it is now viewed as a medium risk (previously high). This is principally driven by a considerable improvement in its borrowers' transition to net-zero credentials in particular within the electricity networks industry.

The Global Equities manager (DC Section) views the short- to medium-term regulatory risk as medium/high (previously low/medium), this is due to the manager identifying climate policies will accelerate the increases in carbon prices which are likely to material financial implications.

The following tables summarise the transition and physical risks for each asset class the Scheme is invested in.

DB Section

UK Credit Bonds – 57% of portfolio

Physical Risks

	Acute	Chronic
Short	A	G
Medium	A	G
Long	A	A

Transitional Risks

	Regulatory	Technology	Market	Reputation
Short	G	G	G	A
Medium	A	A	A	A
Long	A	A	A	A

Source: Investment Managers, Aon

Risks from extreme weather events are already moderate at a global level, these are likely to be more frequent and severe over time, as global average surface temperatures continue to rise. Chronic physical risks associated with climate change are related to permanent shifts in ecosystems, sea levels and biodiversity. It will take time to adjust technology and infrastructure to these changes which reflects the long-term risk. In the medium-long term, chronic effects are considered to become inherently more apparent, for example, events such as heatwaves and reduced rainfall.

In the short-term, reputational risks associated with the energy transition are already prominent, particularly for the fossil fuel industry, and this is unlikely to reduce in the future. Regulatory, Technology and Market risks are considered low in the short-term but expected to intensify overtime. The companies who will not integrate the new policy and legal constraints, related to a low-carbon economy into their business model, will most likely not remain competitive within the next five years.

LDI – 43% of portfolio

Physical Risks

	Acute	Chronic
Short	G	G
Medium	G	G
Long	A	G

Source: Investment Manager

Risks are relatively geographically concentrated and not expected to have material financial impact at the UK sovereign bond level (in which the Scheme's LDI portfolio invests) in the short-term. As extreme weather events become more frequent, severe, and unpredictable, they are likely to have a growing impact at a portfolio level. Extreme weather events cause business interruptions and due to globally interconnected supply chains, may have ripple effects even in unaffected regions.

Transitional Risks

	Regulatory	Technology	Market	Reputation
Short	G	G	G	G
Medium	G	G	G	G
Long	A	A	A	G

Reputational risk to sovereign lenders is expected to be low in the short-term. The medium-term is a crucial period for the climate transition, as time is running out to stay within global carbon budgets for limiting global warming to well-below 2°C. To ensure emissions stay within global budgets for limiting global warming to well-below 2°C, carbon prices will need to continue rising over the long-term. There is some risk from a market perspective that demand and supply for key raw materials will be mismatched going forward.

DC Section

Equity – 100% of popular arrangement

Physical Risks

	Acute	Chronic
Short	G	G
Medium	A	G
Long	A	A

Source: Investment Manager

Over the long-term, the manager believes that as extreme weather events become more frequent and severe the impact of these physical risks is likely to become more significant and cause business interruptions. With the global interconnected supply chains such physical risks can have potentially large financial impacts at the global equity portfolio level.

Transitional Risks

	Regulatory	Technology	Market	Reputation
Short	A	G	G	G
Medium	R	A	A	A
Long	R	A	R	A

The investment manager does not see any transitional risks in the short-term relating to Technology, Market and Reputation in the global equity portfolios. However, it does see Regulatory risk as a 'medium' risk, due to the evolving policy and legal environment, which may have increasing material financial impacts over the medium to long-term. Over the longer-term the investment manager identified increases in carbon prices and limited resources posing to be a high-financial material risk.

Climate-related opportunities

We have identified some climate-related opportunities which may be suitable for the Scheme:

DB Section

LDI	The manager has identified potential opportunities however it has stated sovereign bond investors are shielded from some of the downside risk from a low-carbon transition compared to equity investors, so they will be unable to profit from much of the upside risk of climate-related opportunities.
UK Credit Bonds	<p>For the Scheme's UK Credit Bond managers, investing in green bonds offer an opportunity for financing the transition.</p> <p>For high climate impact sectors, green bonds geared towards adaption, biodiversity and nature-based solutions present an opportunity to minimize physical risk. There are also opportunities in investing in companies that are transitioning – like those setting Science Based Targets¹ or companies focusing on or generating revenues from climate change solutions such as renewable energy, energy efficiency, electric vehicles, circular economy and so on.</p> <p>There are also opportunities in corporates to have low climate impact sectors. Although climate-solution oriented opportunities will be limited in some sectors, many companies can be enablers of the transition such as financing, technology and communications sectors.</p>

Source: Investment Managers

DC Section

Global Equity	<p>The Scheme's investment manager for equity noted the following as potential opportunities:</p> <ul style="list-style-type: none"> • Economic growth: As electric vehicles, renewables and other alternative sources of energy become cheaper relative to fossil fuels, the manager believes that countries and companies at the forefront of the transition stand to benefit most significantly from this shift. • Innovative solutions: The manager has identified potential low-carbon technology opportunities such as carbon capture and storage, direct air capture, low- or zero-carbon hydrogen and ammonia production and nature-based solutions.
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Source: Investment Managers

¹ [Ambitious corporate climate action - Science Based Targets Initiative](#)

How resilient is the Scheme to climate change?

Last year the Trustee carried out climate change scenario analysis to better understand the impact climate change could have on the Scheme's assets and liabilities.

The analysis looks at three climate change scenarios. The Trustee chose these scenarios because it believes that they provide a reasonable range of possible climate change outcomes. The climate scenarios are compared to a "base case" scenario.

Each climate scenario considers what may happen to the Scheme when transitioning to a low carbon economy under different temperature-related environmental conditions. These scenarios were developed by the Trustee's investment consultant, Aon, and are based on detailed assumptions. They are only illustrative and are subject to considerable uncertainty.

The climate scenarios intend to illustrate the climate-related risks the Scheme 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.

Investment risk is captured in the deviance from the base case scenario, but this is not the only risk that the Scheme/members faces. Other risks include covenant risk, longevity risk, timing of member options, basis risks and operational risks.

Trustee update

Under the Regulations, climate scenario analysis must be carried out at least every 3 years, with an annual review in interim years. Circumstances which may require the climate scenario analysis to be re-done. This may be as a result of, but not limited to:

1. a significant/material change to the investment and/or funding strategy; or
2. the availability of new or improved scenarios or modelling capabilities or events that might reasonably be thought to impact key assumptions underlying scenarios.

We reviewed the scenario analysis completed in our last report and we are comfortable that the analysis remains appropriate for this year's report.

DB Section – Impact on the funding level

The Trustee carried out the analysis on the Scheme’s de-risked portfolio (“strategic allocation”). In addition, the Trustee has considered an alternative portfolio (“alternative allocation”) as part of its long-term journey plan to de-risk the Scheme.

The Trustee focused its analysis on the uninsured portfolio.

Asset Class	LDI	UK Credit Bonds	Derivative Based Credit
Strategic Allocation	42.5%	55.0%	2.5%
Alternative Allocation	62.5%	35.0%	2.5%

Note: The derivative based Credit is assumed to be four times leveraged with target exposure of 10%. LDI targets a 100% hedge of liabilities (on interest rates and inflation).

Key conclusions

Overall, the Trustee is comfortable with the level of resilience exhibited by the investment portfolio, and do not plan to make any changes to the investment strategy at this time as a result of this analysis.

The impact assessment showed that the Scheme’s strategy exhibits resilience under all the climate scenarios considered. Over all timeframes, the Scheme is expected to remain in surplus. This conclusion was reassuring to the Trustee. This is due to the low-risk strategy and high levels of hedging against changes in interest rates and inflation.

Impact assessment

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

<p>No Transition Scenario</p> <p>Temperature rise +4°C</p> <p>Reach net-zero After 2050</p> <p>Environmental regulation None</p>	<p>Summary of the Scenario</p> <p>In the short-term: No action is taken to combat climate change.</p> <p>In the medium-term: No action is taken to combat climate change.</p> <p>In the long-term: Climate change headwinds grow and act as a drag on economic growth and risk asset returns. Impacts from physical risks become more severe and irreversible by 2100.</p>	<p>Summary of the impact to the Scheme</p> <p>In the short-term: There is no initial risk to the Scheme, as the funding level is expected to follow the base case.</p> <p>In the medium-term: There continues to be little impact on the Scheme's expected funding position.</p> <p>In the long-term: There continues to be little impact on the Scheme's expected funding position, however the investment performance starts to slow down. The performance of the Scheme's strategy and funding begins to lag the Orderly scenario.</p>
<p>Disorderly Scenario</p> <p>Temperature rise < 3°C</p> <p>Reach net-zero After 2050</p> <p>Environmental regulation Late and Aggressive</p>	<p>Summary of the Scenario</p> <p>In the short-term: Insufficient consideration given to long-term policies and there is no action taken to combat climate change</p> <p>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. Adverse impacts from climate change leads to a drag on risk assets</p> <p>In the long-term: After the costly implementation to tackle climate change and the resulting drag on risky assets, the transition to clean technologies and green regulation begins to boost economic growth when considering the very long term. However, the late and disorderly climate transition means that physical climate risks remain prominent over the very long term.</p>	<p>Summary of the impact to the Scheme</p> <p>In the short-term: There is no initial risk to the Scheme, as performance of the assets, and the Scheme's funding level, is expected to follow a similar path to the base case.</p> <p>In the medium-term: The Scheme's funding level deteriorates as a result of late and aggressive action to tackle climate change. Despite this, the Scheme's funding level is expected to remain in surplus.</p> <p>In the long-term: Whilst the funding level recovers by the end of the 30-year modelling period, this leaves the Scheme worse off in terms of surplus relative to the base case, albeit still in surplus. This is the worst outcome for the Scheme within the timeframes considered.</p>
<p>Orderly Scenario</p> <p>Temperature rise 1.3°C – 2°C</p> <p>Reach net-zero 2050</p> <p>Environmental regulation Coordinated</p>	<p>Summary of the Scenario</p> <p>In the short-term: Immediate coordinated global action is taken to tackle climate change. Risky assets perform poorly.</p> <p>In the medium-term: The rapid transition to clean technologies and green regulation begins to boost economic growth.</p> <p>In the long-term: The rapid transition to clean technologies and green regulation begins to boost economic growth. This represents the fastest transition to a green economy, combined with limited physical impacts from climate change despite the large initial transition cost.</p>	<p>Summary of the impact to the Scheme</p> <p>In the short-term: The Scheme suffers a deterioration in its funding level but, the Scheme is expected to remain in surplus.</p> <p>In the medium-term: The funding position begins to recover following the initial fall in funding, as risky assets perform well, benefitting from the economic growth.</p> <p>In the long-term: The Scheme's assets gain from the economic growth and the funding level is expected to continue to grow. This is expected to be the best outcome for the Scheme.</p>

Source: Aon. Effective date of the scenario projections impact assessment is 31 December 2022, on a Technical Provisions Basis.

Alternative allocation

The alternative portfolio also exhibits resilience under all climate scenarios considered, and over all time periods the Scheme is expected to remain in surplus. This conclusion was reassuring to the Trustee. This is due to the low-risk strategy and high levels of hedging against changes in interest rates and inflation. As this portfolio has a lower allocation to risk assets, the fall in funding level experienced under the Disorderly scenario is expected to be less than for the current strategic allocation. As the outcome was similar to the current strategy, the Trustee is comfortable that the narrative above remains appropriate.

Modelling limitations

Please refer to the [Appendix](#) for further details in relation to the assumptions used for the scenario analysis and its limitations.

DC Section – Impact on members’ savings

For the DC Section, the Trustee carried out climate scenario analysis on the popular arrangements, focusing on the LGIM equity funds.

The Trustee decided to conduct qualitative scenario analysis and considered the impacts the scenarios would have on two groups of members: younger and mid-career members, and other members approaching retirement and at-retirement.

Trustee update

The Trustee has considered the same three climate scenarios per the DB Section and compared to a base case.

Key conclusions

Overall, the Trustee is comfortable with the level of resilience exhibited by the investment arrangements, and does not plan to make any changes to the investment strategy as a result of this analysis.

Younger and mid-career members

The financial impact of climate change for these members will mainly be driven by what happens over the long-term time horizon. In particular, the climate-related risks associated with investing in equities is expected to be greatest over the long-term.

Members approaching retirement and at-retirement

The financial impact of climate change for these members is expected to be driven by the short- to medium-term time horizons. In particular, the climate-related risks associated with investing in equities is expected to have an impact on these members during this time period. This assumes that the time horizons tie in with members' retirement date. Over time, these members are expected to reduce their allocation to equities as they approach and are at-retirement. Should members continue to invest post-retirement, the impact should be more aligned to that of younger and mid-career members.

Impact assessment

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

No Transition Scenario	Summary of the Scenario	Summary of the impact to the Scheme
Temperature rise +4°C Reach net-zero After 2050 Environmental regulation None	In the short-term: No action is taken to combat climate change. In the medium-term: There is no action taken to combat climate change. Impacts from physical risks gradually become more severe over time leading to a drag on economic growth and risk asset returns. In the long-term: Climate change headwinds grow and act as a drag on economic growth and risk asset returns. Impacts from physical risks become more severe and irreversible by 2100.	In the short-term: There is not expected to be any initial impact on asset portfolios and performance is expected to follow the base case. In the medium-term: Asset portfolio values begin to lag behind those of the base case. In the long-term: Asset portfolio values continue a downward trend.
Disorderly Scenario Temperature rise < 3°C Reach net-zero After 2050 Environmental regulation Late and Aggressive	Summary of the Scenario In the short-term: Insufficient consideration given to long-term policies and there is no action 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. Adverse impacts from climate change leads to a drag on risk assets In the long-term: After the costly implementation to tackle climate change and the resulting drag on risky assets, the transition to clean technologies and green regulation begins to boost economic growth when considering the very long term. However, the late and disorderly climate transition means that physical climate risks remain prominent over the very long term.	Summary of the impact to the Scheme In the short-term: There is not expected to be any initial impact on asset portfolios and performance is expected to follow the base case. In the medium-term: Asset portfolios fall sharply in value. In the long-term: Whilst asset portfolios do start to recover from the medium-term shock, this scenario is likely to be of most concern for this group of members, which would leave them materially worse off in comparison to the base case.
Orderly Scenario Temperature rise 1.3°C – 2°C Reach net-zero 2050 Environmental regulation Coordinated	Summary of the Scenario In the short-term: Immediate coordinated global 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. This represents the fastest transition to a green economy, combined with limited physical impacts from climate change despite the large initial transition cost.	Summary of the impact to the Scheme In the short-term: Members' asset portfolios are expected to suffer an initial fall in value. In the medium-term: Asset portfolios are beginning to recover from the initial fall in value. In the long-term: Members' asset portfolios are likely to perform strongest relative to the base case.

Source: Aon. Effective date of the impact assessment is 31 December 2022.

Modelling limitations

Please refer to the [Appendix](#) for further details in relation to the assumptions used for the scenario analysis and its limitations.

Covenant Assessment

A key risk identified from the analysis is the volatility of the funding level. Under the orderly transition and disorderly transition scenarios, the Scheme experiences sudden falls in the funding level before recovering. Deterioration of the funding level will place a strain on the financial strength (“covenant”) of the sponsoring Employer, if it must make up a bigger shortfall through deficit contributions. It may also require the Scheme to re-risk its portfolio or extend the time frame for achieving full funding or other long-term goals. However, as part of this report, the Trustee has considered that the DB Section is well funded and invests in a low-risk strategy with high levels of hedging. As such, the Trustee has taken a more proportionate response in relation to the covenant assessment.

The Trustee notes that the Employer considers climate change to be the core theme of its updated sustainability strategy, which is built around three priorities, as outlined in its Non-Financial Report 2023²:

- Focusing on climate-related investing, by seeking to provide access to climate-related opportunities, going hand-in-hand with its thought leadership and modular advisory approach.
- Strengthening engagement with investees and other relevant stakeholders, by aiming to continuously evolve its engagement approach with investee firms, clients, and index providers as well as other industry groups.
- Advancing its corporate transformation, following its commitment to net zero by seeking to focus on delivery against net zero targets. Furthermore, the Employer seeks to strengthen its corporate sustainability agenda and the supporting organizational change process.

The Trustee monitors the covenant on a regular basis, with the support of its covenant adviser, and maintains a regular dialogue with the Employer.

² [Non-Financial-Report-2023.pdf \(db.com\)](#)



Risk management

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

Reporting on our risk management processes provides context for how we think about and address the most significant risks to our efforts to achieve appropriate 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 Scheme. This is part of the Scheme's wider risk management framework and is how the Trustee monitors the most significant risks to the Scheme in its efforts to achieve appropriate outcomes for members.

Trustee update

This process of identifying and assessing climate related risks has been reviewed in the process of producing this TCFD report and is deemed to be continually suitable.



Qualitative assessment

The first element is a qualitative assessment of climate-related risks and opportunities, which is prepared by the Trustee's investment consultant and reviewed by the Trustee.



Quantitative analysis

The second element is quantitative in nature and is delivered by means of climate change scenario analysis, which is provided by the Trustee's investment consultant and reviewed by the Trustee.

Together these give the Trustee a clear picture of the climate-related risks that the Scheme is exposed to. Where appropriate, the Trustee distinguishes between transition and physical risks. And all risks and opportunities are assessed with reference to the time horizons that are relevant to the Scheme.

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

Our climate risk management framework

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

The Trustee has developed a climate risk management framework to manage climate-related risk and opportunities. The climate risk management framework set out in the tables below clearly describes who is involved, what is done and how often. The Trustee delegates a number of key tasks to different entities but retains the final approval responsibility.

Governance

Activity	Delegated responsibility	Adviser / supplier support	Frequency of review
Climate change governance framework (<i>this document</i>)	Trustee	ESG WG	Ad-hoc
Publish TCFD report and implementation statement	Trustee	Advisers	Annual
Review adviser objectives to ensure advisers have appropriate climate capability, and bring important, relevant and timely climate-related issues to the Trustee's attention.	Trustee	Advisers	Annual
Trustee training	Trustee	ESG WG / advisers	Ongoing
Ensure investment proposals explicitly consider the impact of climate risks and opportunities, and seek investment opportunities	Trustee	Investment consultant	Ongoing
Ensure that actuarial and covenant advice adequately incorporate climate-related risk factors where they are relevant and material	Trustee	Scheme Actuary, Covenant adviser	Triennial
Engage with the investment managers to understand how climate risks are considered in their investment approach, and stewardship activities are being undertaken appropriately	Trustee	ESG WG, Fund managers, Investment consultant	Annual
Engage with DC benefit providers to understand how climate risks are considered in their selection of funds	Trustee	DC providers, Investment consultant	Annual

Trustee update

The Trustee has monitored progress of the implementation of the climate change governance framework through the year, receiving updates from the ESG WG and querying information as and when required.

The Trustee has received training through the year to ensure it is familiar with the potential financial impact that climate change may have on the DB Section's investment strategy and funding position, and also the DC Section. Through implementing new investment proposals, the Trustee has:

- within the DB Section, de-risked during the reporting year by selecting an insurer to secure a portion of member benefits. The insurer's ESG credentials, including climate change, was considered as part of the due diligence process.
- expanded the self-select fund range available to members in the DC Section should they wish to invest in assets that are focused on ESG, including climate change – this was implemented during the reporting year and the Fund is now available for members to be able to invest.

Strategy

Activity	Delegated responsibility	Adviser / supplier support	Frequency of review
Identify climate-related risks and opportunities (over agreed time periods) for investment & funding strategy and assess their likelihood and impact.	Trustee	ESG WG, Investment consultant	Annual
Undertake quantitative scenario analysis to understand the impact of climate-related risks.	Trustee	ESG WG, Investment consultant	Triennial (with annual review)
Actuarial valuation	Trustee	Scheme Actuary	Triennial

Trustee update

The ESG WG has spent dedicated time through the year to analyse climate-related risks and opportunities for the Scheme's various asset classes in which it invests.

The Trustee undertook its annual review of the climate scenario analysis, this concluded that the analysis remained appropriate. Details can be found within the Strategy section.

Risk management

Activity	Delegated responsibility	Adviser / supplier support	Frequency of review
Consider the prioritisation of those climate-related risks, and the management of the most significant in terms of potential loss and likelihood.	Trustee	ESG WG, Advisers	Annual
Include consideration of climate-related risks in the Scheme's other risk processes and documents, such as the risk register and the SIP, and regularly review these.	Trustee	Advisers	Ongoing
Seek to understand the climate-related risks to the employer over the short-, medium- and long- term.	Trustee	Covenant adviser	Annual

Liaising with providers for DC benefits, to understand how each business incorporates risk management of climate-related risks.	Trustee	DC benefit providers, Investment consultant	Annual
Liaising with insurers providing annuity agreements, to understand how ESG, including climate-related risks is incorporated.	Trustee	Advisers	Ad-hoc

Trustee update

The Trustee has processes in place for identifying and assessing climate-related risks as part of the annual TCFD Process. Climate risk management is integrated into the ongoing risk management activities of the Scheme via the Scheme's climate risk management plan.

The Trustee receives support from the ESG WG and its advisers to review the underlying investment managers and how ESG is integrated within their decision-making processes, including climate change. The Trustee also asks for details on how these have been implemented in practice, including key themes for engagement, such as climate change.

The Trustee included the impact of climate change into its due diligence process as part of the insurer selection and annuity agreement entered into during Q4 2023. This will also be considered as part of any future annuity agreements.

Metrics and Targets

Activity	Delegated responsibility	Adviser / supplier support	Frequency of review
Obtain data for agreed metrics	Trustee	ESG WG, Investment consultant, fund managers	Annual
Review continued appropriateness of metrics	Trustee	ESG WG, Investment consultant	Annual

Trustee update

The Trustee has collated carbon metrics data for the reporting year, supported in this by the ESG WG and the investment consultant. As the Trustee prepares its second climate disclosures report, it is required to expand the carbon metrics to include scope 3 emissions. Details of these can be found in the metrics and targets section of this report.

Alongside, the Trustee reviewed its targets, set in the first year of reporting, and confirmed that these remained appropriate during this reporting year.

Assessing our managers

To assess the Trustee's managers' abilities to manage climate-related risks, the Trustee asked them 10 questions designed by the Pensions Climate Risk Industry Group³ to help do just that. The questions were designed to assist the Trustee with its assessment of each manager's capabilities and approach to climate management. The Trustee focused on areas such as whether the managers produce their own TCFD reporting, managers' ability to conduct climate scenario analysis, their engagement and escalation policies, managers' ability to provide GHG emissions data and align their strategies to a particular temperature level.

Summary of investment manager responses

The table below summarises the responses from the most material investment managers in the DB and DC Sections.

Manager	TCFD report	Climate-related risks analysis	Industry initiatives	Carbon reporting	Temperature alignment
BlackRock	✓	✓	✓	✓	✗
Royal London	✓	✓	✓	✓	✗
LGIM	✓	✓	✓	✓	✓

Source: Managers. LGIM responses are applicable to the DB and DC Sections. Remaining manager responses relate to the DB Section.

Key conclusions

DB Section

The Trustee undertook de-risking through the year which saw the number of managers in which the Scheme invests reduce. The analysis focused on the managers which remain in the portfolio.

The Trustee has seen no changes from last year in the climate risk disclosures from its investment managers. In summary:

- 1) All three managers produce TCFD reports, conduct climate-related risks analysis, and also participate in industry initiatives.
- 2) Two out of three managers have not set long-term temperature alignment targets, however both managers have committed to a firm-wide Net Zero target.

The Trustee will engage with its managers to understand the future changes to the management of the Scheme's assets, including improvements in temperature alignment and the associated timescales involved with these.

³ Aligning your pension scheme with the Taskforce on Climate-Related Financial Disclosures recommendations - GOV.UK (www.gov.uk)

DC Section

The Trustee makes a range of funds available to its DC members, via various DC providers, with investment decisions within this range being the responsibility of the individual member. The Trustee has delegated certain elements of its risk management policies, including climate-related risks, to its DC providers.

The Trustee, supported by its investment consultant, will continue to engage with its providers to ensure their approach with regards to responsible investment, including their climate-related risk policies, are broadly aligned with its own.

Trustee update

As data becomes available in future years, the Trustee will be able to draw further conclusions / direct engagement with managers accordingly.



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

We use some quantitative measures to help us understand and monitor the Scheme's exposure to climate-related risks. Measuring the greenhouse gas emissions related to our assets is a key way for us to assess our exposure to climate change.

Greenhouse gases are produced 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 its own operations – from the goods it purchases to the disposal of the products it sells

Last year, the Trustee reported on scope 1 and 2 emissions only. This year the Trustee is required to report scope 3 emissions as well. 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](#).



Our climate-related metrics

In our first year of TCFD reporting, we decided what metrics to annually report on. These are described below. This year we reviewed the metrics and we believe they continue to be suitable for us to report against.



Total Greenhouse Gas emissions

The total greenhouse gas (GHG) emissions associated with the portfolio. 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 coverage

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, versus that which is unavailable).

This has been selected on the basis that it provides a consistent and comparable measure of the level of confidence in the data.

This year the Trustee did not need to make any estimation as the data was directly provided by the managers. Please note some managers used estimates of their data, details of which are not shared as part of this document.



Portion of portfolio which is net zero or Paris aligned

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 declared net-zero or Paris-aligned targets, including those that have been verified by the Science based Target initiative ("SBTi").




In last year's report, the Trustee reported data as at 31 December 2021. In this year's report, we have reported data as at 31 December 2022. This is due to:

- Improved availability of data from the Scheme's investment managers.
- Significant changes to the Scheme's DB strategy over 2023, including changes to the managers.

In the table below are the climate-related metrics for the Scheme's assets. The metrics are shown separately for the Liability Driven Investments ("LDI") and the other investments because the methodology used for each are different so aggregating the metrics would not make sense.

The carbon metrics

DB Section – Uninsured Assets

Asset class	%		 Data coverage (%)		 Total GHG Emissions (tCO ₂ e)		 Carbon Footprint (tCO ₂ e/£m)	
			Scope 1&2	Scope 3	Scope 1&2	Scope 3	Scope 1&2	Scope 3
UK Credit Bonds	57%	2023	59%	18%	51,828	72,681	86	396
	57%	2021	83%	-	127,484	-	91	-
Global Equities	0%	2023	-	-	-	-	-	-
	10%	2021	98%	-	13,004	-	45	-
Multi-Asset Credit	0%	2023	-	-	-	-	-	-
	7%	2021	45%	-	19,024	-	209	-
Absolute Return Bonds	0%	2023	-	-	-	-	-	-
	13%	2021	26%	-	2,511	-	25	-
Total Assets (ex. LDI)	57%	2023	59%	18%	51,828	72,681	86	396
	86%	2021	73%	-	162,063	-	62	-
LDI								
Gilts	43%	2023	100%	n/a	127,117	n/a	170	n/a
	14%	2021	96%	-	33,207	-	81	-
Total Assets (inc. LDI)	100%	2023	n/r	n/a	179,312	72,681	n/r	n/r
	100%	2021	n/r	-	195,270	-	n/r	-

Source: Investment managers / Aon. Data as at 31 December 2023 unless specified otherwise. Scope 3 emissions are not available for 2022 because this is the first year of reporting scope 3 emissions. Cash has been excluded from the asset allocation, due to the lack of relevance for this asset class in the context of climate metrics.

'n/r' denotes climate-metrics which are 'not reported'.

'n/a' denotes where climate-metrics which are 'not applicable'; see 'LDI' commentary below, for more details.

Commentary

The Trustee observed the following in relation to its assets over the latest year.

During the 2022 Scheme year, the Trustee undertook further de-risking in the DB Section, which saw to full redemptions from Global Equities, Multi-Asset

Credit, and Absolute Return Bonds. The proceeds were transferred to the LDI portfolio upon settlement.




UK Credit Bonds

- Data coverage has significantly decreased, this is largely due clarification from one of the investment managers that the data coverage figures provided last year were in relation to Weighted Average Carbon Intensity (and not carbon footprint). As a result, limited conclusions can be drawn when comparing the year-on-year data metrics, as the methodologies are distinctly different.
- Whilst the coverage from this manager decreased, driven by the change in methodology noted above, the Trustee has observed that this manager has significantly improved the reporting available in relation to carbon emissions within the portfolio. As such, whilst the coverage has decreased, the quality of the data has significantly improved and provides the Trustee which helpful and granular detail.
- Total emissions have decreased this is primarily driven by a decrease in the asset allocation and data coverage, along with a fall in the carbon footprint.

LDI

- This year's carbon data for LDI is not directly comparable to the carbon data from last year due to changes in the methodology of calculating climate-related metrics for this asset class. The Trustee's Investment Consultant collected the physical and synthetic split from the Scheme's LDI manager. The carbon footprint was calculated using UK GHG Emissions and Purchasing Power Parity ("PPP") adjusted Gross Domestic Product ("GDP") and assumes data coverage to be 100%. There is currently no industry agreed standard for calculating LDI emissions. The Trustee's Investment Consultant therefore calculates the carbon footprint to ensure consistency across managers and reporting. This will allow for better comparisons between similar pension schemes in future.
- The LDI portfolio contains mainly UK government bonds. Carbon metrics for UK government bonds are based on the total GHG emissions for the whole of the UK, which are extremely high. By contrast, carbon emissions for equities, for example, are based on the emissions associated with the underlying companies invested in, which are smaller. Hence, the carbon metrics for LDI are higher than other assets.
- Scope 3 GHG emissions relate to indirect emissions linked to the wider supply chain and activities of an organisation from outside its own operations for example, from the goods it purchases to the disposal of the products it sells. The nature of scope 3 GHG emissions makes them more complex to collect and report on, often resulting in higher levels of estimation compared to scope 1&2 GHG emissions. Scope 3 GHG emissions are currently not applicable to LDI assets because no industry-wide agreed methodology is applicable to calculate scope 3 GHG emissions for sovereigns.

DB Section – Insured Assets

Asset class	%		 Data coverage (%)		 Total GHG Emissions (tCO ₂ e)		 Carbon Footprint (tCO ₂ e/£m)**	
			Scope 1&2	Scope 3	Scope 1&2	Scope 3	Scope 1&2	Scope 3
			2023	2021	2023	2021	2023	2021
Annuity	100%	2023	56%	0%	44,366	-	68	-
	100%	2021	100%*	-	39,893	-	75	-

Source: Insurers / Aon. Data for the year ended 2023 is as at 31 December 2022, due to data availability from the Scheme's insurers, unless specified otherwise.

Scope 3 emissions are not available for 2022 because this is the first year of reporting scope 3 emissions.

*The insurer stated that the metrics are calculated on the entire backbook excluding cash and derivatives and use proxies where it does not have complete data.

**Calculated as tCO₂e/EVIC

Commentary




The Scheme has three bulk annuities, across two separate insurers, and entered into additional policy with one of these insurers in October 2023, by partially divesting from the LDI and UK Credit Bond funds.

As part of the reporting for the year ended 2023, the Trustee received data from the insurer the Scheme entered into a policy in September 2021; this insurer was not able to provide information prior to completion of last year's disclosures.

Annuity

- Carbon footprint has decreased however, total GHG emissions have increased, primarily driven by an increase in asset allocation.
- There has also been a fall in data coverage, due to proxies not being used for where the insurer didn't have complete data and this year's analysis also including an additional insurer.

DC Section Assets

Asset class	%		 Data coverage (%)		 Total GHG Emissions (tCO ₂ e)		 Carbon Footprint (tCO ₂ e/£m)	
			Scope 1&2	Scope 3	Scope 1&2	Scope 3	Scope 1&2	Scope 3
			2023	2021	2023	2021	2023	2021
Equity	100%	2023	96%	96%	7,411	79,925	80	859
	100%	2021	91%	-	10,219	-	112	-

Source: Insurers / Aon. Data as at 31 December 2023 unless specified otherwise.

Scope 3 emissions are not available for 2022 because this is the first year of reporting scope 3 emissions.

Commentary

The funds included in the analysis, as popular arrangements, namely those which account for 10% or more of the assets used to provide “money purchase benefits”, are as follows:

- LGIM World (ex-UK) Equity Index Fund; and
- LGIM UK Equity Index Fund.

Equity

- Overall, there has been a fall in total scope 1&2 emissions, this is driven by a fall in the carbon footprint.
- There has also been an improvement in the data coverage, from 91% to 96%, year-on-year.
- The manager was also able to share scope 3 emissions data. Due to the nature of scope 3 emissions, they tend to be considerably larger than scope 1&2 emissions. However, scope 3 data is less mature and not considered to have the same level of accuracy as scope 1&2 data, therefore the total greenhouse gas emissions for equities may be higher.

Portion of the portfolio with net-zero or Paris aligned targets

The table below shows the available data for the Scheme across the applicable asset classes.

Asset class		Portion of the portfolio with net zero or Paris aligned targets		Proportion of assets for which data was available
DB Section	UK Credit Bonds	2023	25%	59%
		2021	2%	83%
	Annuity	2023	48%	56%
		2021	19%	100%
DC Section	Equity	2023	54%	96%
		2021	50%	91%

Source: Investment managers / Aon. Data as at 31 December 2023 except for annuities data which as at 31 December 2022.

Commentary

The table above shows the percentage of underlying portfolio investments with a declared net-zero or Paris-aligned target, or are already net-zero or Paris-aligned.

Overall, the proportion of the Scheme’s assets with net-zero aligned targets has improved for both Sections. All of the Scheme’s investment managers/insurers were able to report the data.

Notes on the metrics data

The Trustee's investment consultant, Aon, collected information from the Scheme's investment managers about their greenhouse gas emissions. Aon collated this information to calculate the climate-related metrics for the Scheme's portfolio of assets.

Availability of data

- Two managers provided scopes 1, 2 and 3 GHG emissions, however one of the managers was unable to split out scope 3 emissions from scope 1&2.
- Four managers provided scope 1&2 only.
- All of the Scheme's managers provided portfolio alignment data.

Aon does not make any estimates for missing data.

Because not all the Scheme's managers were able to provide all the requested data, the reported emissions metrics do not include all the Scheme's GHG emissions. And so, the metrics show the Scheme's GHG emissions to be lower than they really are.

The Trustee notes that there were some differences arising in the data coverage across the asset classes in which it invests, particularly when comparing between the UK Credit bonds and the global equity. The Trustee is comfortable with the differences that exist due to the different asset classes:

- The global equity funds within the DC Section invest predominantly in companies listed on a public exchange. As a result, these companies may be required to report carbon emissions as part of legislative requirements. Even if not required to report, companies and their management may deem that there are benefits from reporting carbon emissions amongst wider environmental and social impact reporting to help meet the expectations of their investors.
- Investment in credit bonds is different to global equities and not all underlying companies may be listed on a public exchange. As such, the disclosure requirements of carbon emissions may differ, and as such result in a lower coverage of data. Alongside this, the percentage of ownership is not always as clear for bond holders versus equities, as borrowing changes over time (such as new bonds issued by a company, or bonds bought back). This can lead to complications with the emissions methodology for bond holders.

We expect that in the future better information will be available from managers and this improvement will be reflected in the coming years' reporting. We plan to engage with our managers that were unable to supply emissions data to communicate our expectations for future reporting.

How we collected the data

The Trustee's investment consultant, Aon, collected the carbon emissions data from our managers on our behalf using the industry standard Carbon Emissions Template ("CET"). 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.

Notes on the metrics calculations

There is no industry-wide standard for calculating some of these metrics yet and different managers may use different methods and assumptions. These issues are common across the industry and highlight the importance of climate reporting to improve transparency. We expect that in the future better information will be available from managers as the industry aligns to expectations and best practice standards.

The carbon metrics

Aon collected carbon metrics from managers before aggregating by asset class. The methodology used for this aggregation does not make any assumptions about the carbon emissions for assets for which data was unavailable. The aggregation methodology is as set out below:

$$G = A \times C \times F$$

G = Total GHG expressed as (tCO₂e).

A = Assets expressed in £ Millions.

C = Data Coverage expressed as a decimal between 0 and 1.

F = Carbon Footprint expressed as (tCO₂e/£M invested).

The methodology used follows the industry-standard best-practice established within the Carbon Emissions Template (“CET”)⁴.

LDI

Aon collected the physical and synthetic split from the Scheme’s LDI manager. The carbon footprint was calculated using UK GHG Emissions and PPP adjusted GDP and assumes data coverage to be 100%. There is currently no industry agreed standard for calculating LDI emissions. Aon therefore calculates to ensure consistency across managers and reporting.

Portion of the portfolio with net-zero or Paris aligned targets

Aon requested the data of each fund from our investment managers and aggregated the results based on the portion of assets invested in each fund.

Aon does not make any estimates for missing data, and therefore the percentages shown only represent the portion of the portfolio for which we have data.

Currently, there is no standard approach for calculating this data for government bonds. Hence there is no data shown for the LDI assets.

The Carbon Emissions Template

Our investment adviser, Aon, collected the carbon emissions data from our managers on our behalf using the industry standard CET Template. 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.

⁴ <https://www.plsa.co.uk/Policy-and-Research/Document-library/Carbon-Emissions-Template>

Looking to the future

Our climate-related target

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

In our first year of reporting, we set a target to improve data coverage and the portion of the portfolio with net zero or Paris aligned targets.

- Without meaningful data from the investment managers, it is very hard for us to measure our climate-risk exposure. So, it is important to set a target to improve the data coverage of the GHG emissions data from the managers.
- The Trustee noted the very low portions of the portfolio with net zero or Paris aligned targets. The Trustee recognises this is a forward-looking metric which assesses the alignment of the Scheme's assets with the climate change goal of limiting the increase in the global average temperature to 1.5°C above pre-industrial levels.

Trustee update

Each year we review the suitability of the target we have set. Based on the data collected and the metrics calculated this year, we believe the target continues to be suitable.

The Trustee has agreed to set the following targets for the Scheme's assets:



Improve the data coverage for scopes 1 and 2 GHG emissions data for the UK Credit Bonds for the DB uninsured assets to above 90% by 2026, using data at 31 December 2021 as the baseline.

Improve the portion of UK Credit Bonds for the DB uninsured assets which have net zero or Paris aligned targets. The Trustee is aiming for more than 40% by 2026, using data at 31 December 2021 as the baseline.

Our progress towards the target

The tables below shows the UK Credit Bonds, for the DB uninsured assets, data coverage and net zero or Paris aligned metrics for this year and last year, as well as a comparison versus the target.

UK Credit Bonds	2021	2023	Target
Data coverage (scopes 1 & 2)	83%	59%	90%
Portion of the portfolio with net zero or Paris aligned targets	2%	25%	40%

Since last year, good progress has been made with the portion of the UK Credit Bonds with net zero or Paris aligned targets improving by 23%. On the other hand, the data coverage has decreased, due to a change in methodology adopted by one of the managers. This is described in more detail on page 35.



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

Steps we are taking to reach the targets

The Trustee views the coverage of data as an area which it is keen to see improvement, particularly within the UK Credit Bonds.

Another area for improvement will be in relation to the portion of the portfolio with net zero or Paris aligned targets.

The Trustee is taking the following steps to reach the targets:

<p style="text-align: center;">Increasing data availability</p> <div style="text-align: center;"></div>	<p style="text-align: center;">Making the reporting consistent</p> <div style="text-align: center;"></div>
<p style="text-align: center;">Observation</p> <p style="text-align: center;">Coverage of data is an area for improvement, particularly within the UK Credit Bonds.</p> <p>Another one of the key areas for improvement will be in relation to the portion of the UK Credit Bonds with net zero or Paris aligned targets.</p>	<p style="text-align: center;">Observation</p> <p style="text-align: center;">There were inconsistencies with the data provided by the Trustee's managers. The Trustee will continue to follow guidance for collecting carbon data in line with the industry standard CET.</p>
<p style="text-align: center;">Solution</p> <p style="text-align: center;">The Trustee, with the support of its investment consultant, will engage with the relevant investment managers directly.</p> <p>Through engagement, it is expected that this will identify opportunities to improve data availability or investigate alternative sources of data, particularly where there are significant gaps in the data. Engagement may also identify areas to improve the portion of assets with net zero or Paris aligned targets.</p>	<p style="text-align: center;">Solution</p> <p style="text-align: center;">The Trustee, with the support of its investment consultant, will engage with the managers directly, to understand challenges with providing consistent data and find an appropriate solution.</p>

Appendices

Glossary

- Governance** refers to the system by which an organisation is directed and controlled in the interests of shareholders and other stakeholders.⁵ 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.⁶
- 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.⁷
- 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.⁸
- 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.⁹
- 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.¹⁰

⁵ A. Cadbury, [Report of the Committee on the Financial Aspects of Corporate Governance](#), London, 1992.

⁶ OECD, [G20/OECD Principles of Corporate Governance](#), OECD Publishing, Paris, 2015.

⁷ TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017

⁸ TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017

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

¹⁰ TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017

Greenhouse gas emissions scope levels¹¹ 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.¹²

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).¹³

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.¹⁴

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.¹⁵

¹¹ World Resources Institute and World Business Council for Sustainable Development, [The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard \(Revised Edition\)](#), March 2004.

¹² PCC, [Climate Change 2014 Mitigation of Climate Change](#), Cambridge University Press, 2014.

¹³ TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017

¹⁴ TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017

¹⁵ Energy Saving Trust, [What is net zero and how can we get there? - Energy Saving Trust](#), October 2021

Appendix – An explanation of climate risk categories

Climate-related risks are categorised into physical and transition 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 risks are extreme climate events such as flooding and wildfires, and chronic risks are 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 – 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 Scheme to climate-related risks and the approximate impact on asset/liability values over the long-term.

Aon’s model uses a deterministic projection of assets and technical provision liabilities, using standard actuarial techniques to discount and project expected cashflows.

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 the Trustee to truly assess the sensitivities of the assets and liabilities to changes in interest and inflation rates. The parameters in the model vary deterministically with the different scenarios.

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 you need to make a decision on the contributions payable or investment strategy.

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

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 Scheme 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.

Key Assumptions

	Temperature rise by 2100	Reach net zero by	Introduction of environmental regulation
Base Case	2°C – 2.5°	2050	-
No transition	+4°C	After 2050	None
Disorderly transition	< 3°C	After 2050	Late and Aggressive
Orderly transition	1.3°C – 2°C	2050	Coordinated

Source: Aon

Appendix – 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 Protocol¹⁶ 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.

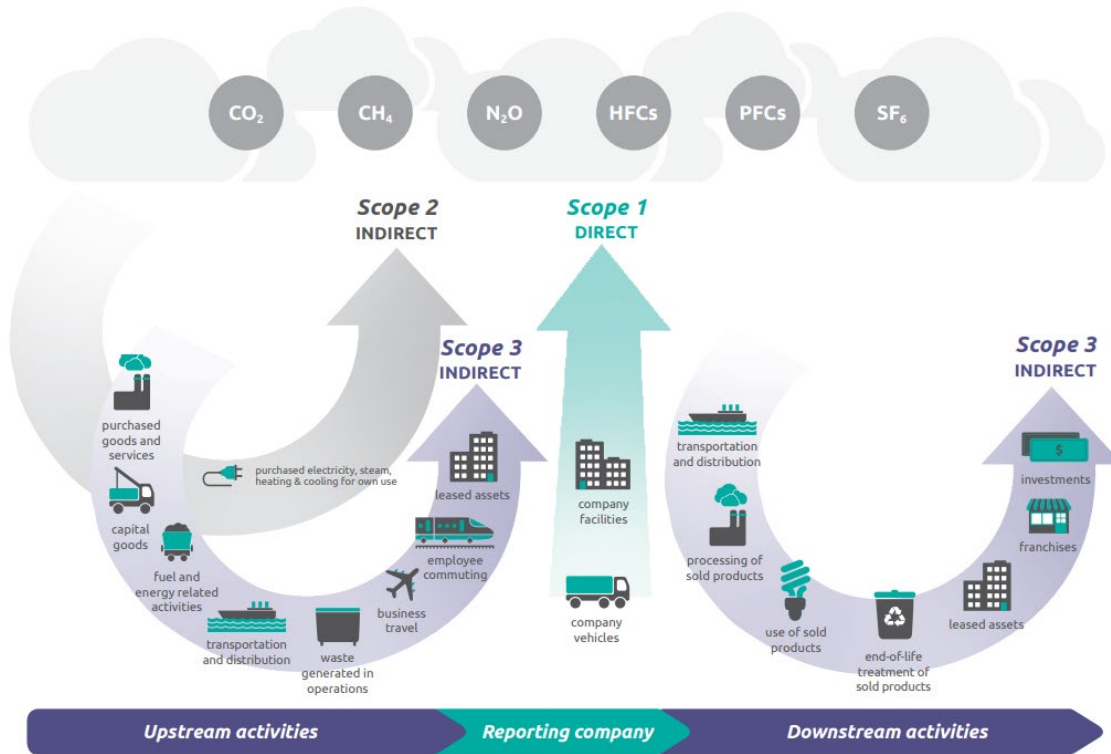
Six main greenhouse gases identified by the Kyoto Protocol

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

¹⁶ 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