

TCFD disclosures report for year ending 31 December 2023

EE Pension Scheme (“the Scheme”)

Produced by: EE Pension Trustee Limited

Date: March 2024

Introduction

Climate change is a generational issue that will necessitate an overhaul of our economy to avoid irreversible damage to both the planet and our way of life. The world has already experienced 1.0°C of average warming above pre-industrial levels; minimising further increases in temperature has now become a race against time. Climate change can impact pension schemes in a number of ways, the purpose of this report is to identify these effects such that any risks can be mitigated and opportunities taken advantage of.

The recommendations of the Task Force on Climate-related Financial Disclosure (“TCFD”) aim to promote better disclosure of climate-related financial risks in order to improve understanding of the risks and opportunities of climate change. Updated UK regulations require trustees to meet climate governance requirements and publish an annual TCFD-aligned report on their pension scheme’s climate-related risks.

This document is the second annual TCFD report for the EE Pension Scheme (the “Scheme”).

The TCFD disclosures report has been prepared by Trustee for the Scheme year ending 31 December 2023.

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Executive summary

In setting out the approach of the Trustee with regards to identifying and managing climate-related risks and opportunities this report aims to fulfil the Department of Work and Pensions (DWP) TCFD Regulations.

The Trustee supports the recommendations made by the TCFD on the basis that they will allow the Trustee to better assess, monitor and mitigate climate-related risks on behalf of its members. This is the Trustee's second disclosure under the framework.

This statement fulfils the requirements of "The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021" (the "Regulations") and the Occupational Pension Schemes (Climate Change Governance and Reporting) (Miscellaneous Provisions and Amendments) Regulations 2021 along with the subsequent statutory guidance released by the Department for Work and Pensions in 2022. It provides a status update on how the Scheme is currently aligning with each of the four elements set out in the regulations (and in line with the recommendations of the TCFD).

The four elements covered in the statement are detailed below:

- **Governance:** How is the organisation's board and management assessing, managing and providing oversight of climate-related risks and opportunities
- **Strategy:** How these risks impact the organisation's business model
- **Risk Management:** What and how have risks been identified and managed
- **Metrics and Targets:** How are the risks being monitored, and have the appropriate metrics and targets been selected.

The following pages summarise the Trustee's current position with regards to the TCFD recommendations and those set out in the Regulations. The Trustee has been supported by its investment advisers, Brightwell ("Brightwell") (DB Section investment adviser) and Mercer Limited (DC Section investment adviser) with the production of its TCFD disclosures report and also the data contained within it.

Climate Mission Statement

The primary concern of the Trustee of the EE Pension Scheme ("the Scheme") is to act in the best financial interest of the Scheme and its beneficiaries, seeking the best return that is consistent with a prudent and appropriate level of risk. This includes the risk that environmental factors, including climate change, may negatively impact the value of the investments held if not understood and evaluated properly. The Trustee believes that the risks associated with climate change may have a detrimental impact on the Scheme's investment returns within the Scheme's timeframe. As such, the Trustee integrates assessments of climate change risk into its investment decisions. Climate change, whether managed or unabated, carries direct risks through physical damage, changes in health, disruptions to the world economy etc. The global response to climate change carries consequential risks, through restructuring of the economy, regulatory changes, fiscal changes etc.

The Trustee will seek to influence and engage with investment managers with regards to climate related factors, rather than simply divesting from assets that are currently not aligned. This approach is one that has the potential to have a real-world impact, which is important given the systemic risk posed by climate change and the potential macroeconomic impacts. The Trustee recognises that, ultimately, divestment is an option if engagement is not expected to achieve the desired results.

The Trustee will also liaise with the employer to understand its approach to climate change and take action where necessary.

Where possible, and appropriately aligned with the Trustee's strategic objectives and fiduciary duty, the Trustee will consider investment opportunities linked to climate-related factors.

Governance

The Trustee is responsible for oversight of all strategic matters relating to the Scheme and is ultimately collectively responsible for oversight of the Scheme. This includes approval of the governance and management framework relating to environmental, social and governance (“ESG”) considerations and climate related risks and opportunities.

Given its importance, the Trustee is supported by the Funding and Investment Sub Committee (the “F&ISC”) to manage the Trustee’s response to climate risks and opportunities. The Trustee has delegated the ongoing monitoring of the Scheme’s climate change risk management framework to the F&ISC where they relate to investment matters.

The Trustee also takes advice from external advisers, where appropriate. It ensures that the Scheme’s fiduciary manager and actuarial, covenant and legal advisers have clearly defined responsibilities in respect of climate change, that they have adequate expertise and resources to carry these out, and that they are taking adequate steps to identify, assess and prioritise any climate-related risks and opportunities which are relevant to the matters on which they are advising.

Strategy

Through Brightwell and Mercer, the Trustee requested its investment managers to carry out a qualitative risk assessment on each asset class the Scheme is invested in. From this, the Trustee identified which climate-related risks, including transition risks (i.e. those arising as part of the move to a low carbon environment) and physical risks, and opportunities could have a material impact on the Scheme. This was undertaken across a range of different time horizons.

Scenario analysis

This analysis was completed for the report published year ending 31 December 2022. It has not been updated for this Scheme year as no changes were made to the strategic allocations or assumptions that would lead to a material change in the conclusions. The next update for the scenario analysis is due by 31 December 2025. This is consistent with the regulatory guidance to update scenario analysis at least every three years. The Trustee considers scenario analysis when relevant to strategy decisions on an ongoing basis.

Scenario analysis (DB Section)

Per the analysis that was carried out last year the Scheme exhibits reasonable resilience relative to climate related risks, which was a key outcome from the quantitative climate scenario analysis. This was demonstrated under all four climate scenarios. This was driven by the high level of diversification in the assets and high levels of hedging against changes in interest rates and inflation expectations.

Scenario analysis (DC Section)

The results of the scenario analysis provide the Trustee with a clear overview of how resilient the investment strategy is with regards to various different climate change outcomes.

Per the analysis that was carried out last year, a failed transition is by far the worst in terms of long term returns and that the default strategy would be materially impacted under such a scenario, particularly over a 25 year or 40 year timeframe. Within the 10 year timeframe, the allocation to global equities is most exposed to a rapid transition.

Risk Management

The Trustee has integrated climate-related risks into its risk management framework and processes and has integrated climate risk oversight within the overall risk management of the Scheme. Climate related risks are assessed alongside the other risks factors, including risks from wider ESG risk factors and financial risks.

The Trustee has outlined a Risk Management Plan, on page 23 and 24 which assists with the ongoing management of climate related risks and opportunities. Alongside this, the Trustee undertakes periodic training on responsible investment to understand how ESG factors, including climate change, may impact the Scheme's assets and liabilities.

Metrics and Targets

In line with the TCFD regulations, occupational pension schemes are now required to report on at least four metrics to measure and track climate-related performance. The Trustee gathered the carbon metrics data from a range of different sources, including its investment managers, investment advisers and other data vendors. As required, the Trustee has, as far as it is able, collated the data for the total greenhouse gas emissions and carbon footprint.

As the regulator has identified, carbon accounting and measurement methodologies are still evolving and data is not always available. The Trustee expects over time, that this data will become more meaningful as more data is collected for each reporting year, enabling comparisons to be made. In the meantime, this may show up as a reported 'increase' of greenhouse gas emissions. The Trustee does not view this as a real increase, and notes that the increase is an expected output as the availability and coverage of data expands.

In line with regulatory requirements, this report looks at Scope 1 and Scope 2 emissions (for the second year) in addition to Scope 3 emission measures for the first time this year.

DB Section

All of the Scheme's investment managers and underlying asset portfolios were contacted for carbon metrics information, and while all of the investment managers have been able to provide information a number of gaps remain. The Trustee observed that due to the changes in portfolio composition over the period it is difficult to draw too many conclusions based on the progress made since the last report and that there is no sensible way to aggregate emissions from the gilt (LDI) allocation with the rest of the portfolio without double counting. More positively, the Trustee notes an uptick in the alignment of the portfolio to a long-term decarbonisation outcome.

It remains the case that there is much room for improvement in the carbon metrics data, to enable the Trustee to obtain a clear overview of the Scheme's total greenhouse gas emissions and carbon footprint. The metrics data can be found later in the report on pages 30 and 31.

DC Section

The Trustee has agreed to report on the following five climate-related metrics for the DC Section. These are as follows: absolute emissions, carbon footprint, weighted average carbon intensity ("WACI"), implied temperature rise and climate value at risk.

The DC Section of the Scheme has committed to a target of net-zero absolute carbon emissions by 2050 for the Growth Fund and Diversified Retirement Fund. To achieve this, the DC Section of the Scheme plans to reduce portfolio relative carbon emissions by at least 45% from 2019 baseline levels by 2030, as measured by WACI. This target considers only Scope 1 & 2 emissions data given the availability of data in the baseline year. The Trustee has agreed to the ongoing suitability of the target set.

We note that significant progress (i.e. reductions of c.40%-45%) has been made versus the climate-related target since 2019. However, it is important to note that decarbonisation progress will not be linear and progress could fluctuate. The metrics data can be found later in the report.



Governance

Governance

Role of the Trustee

The Trustee is responsible for oversight of all strategic matters relating to the Scheme and is ultimately collectively responsible for oversight of the Scheme. This includes approval of the governance and management framework relating to environmental, social and governance (“ESG”) considerations and climate related risks and opportunities. Given its importance, the Trustee is supported by the Funding and Investment Sub Committee (the “F&ISC”) to manage the Trustee’s response to climate risks and opportunities. The Trustee believe that ESG factors have a material impact on investment risk and return outcomes and recognise that long-term sustainability issues, particularly climate change, present risks and opportunities that increasingly require explicit consideration.

The Trustee has agreed its climate related beliefs and overarching approach to ESG integration (including managing climate change risk). Details are set out in the Statement of Investment Principles (“SIP”). These documents are reviewed regularly, at least every three years.

Where appropriate, the Trustee consider transition and physical climate related risks separately.

The Trustee receive training on an annual basis (or more frequently if required) on ESG topics to ensure that it has the appropriate knowledge and understanding to support good decision-making on climate-related risks and opportunities.

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 also expects its advisers and investment managers to have the appropriate knowledge on climate-related matters.

The Trustee seek 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.

The Trustee has delegated oversight of climate change risk management, including investment and funding matters, to the F&ISC. The Trustee is updated on material climate related developments on a regular and relevant basis.

Role of the F&ISC

The F&ISC monitor climate risk through scenario analysis and metrics outlined in the TCFD report. In addition to this, the Trustee has delegated the ongoing monitoring of the Scheme’s climate change risk management framework to the F&ISC where they relate to investment matters.

The key activities undertaken by the F&ISC, with the support of the Trustee’s advisers, are:

- ensure the investment strategy or any implementation proposals consider the impact of climate risks and opportunities
- engage with the Scheme’s investment managers to understand how climate-related risks are considered in their investment approach
- work with the investment managers to disclose relevant climate-related metrics as set out in the TCFD recommendations
- ensure stewardship activities are being carried out appropriately by the investment managers on the Scheme’s behalf
- monitor and review progress against the Scheme’s risk management framework twice a year.

The F&ISC will meet quarterly to carry out the above activities. The F&ISC will keep the Trustee updated on any material climate-related developments through regular and relevant updates at Trustee meetings.

DB Section

- 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 ensure that funding advice adequately incorporates climate related risk factors where they are relevant and material

DC Section

Whilst the Trustee maintain the ultimate responsibility for ensuring effective governance of climate related risks and opportunities, within the DC section of the Scheme the Trustee delegates day to day management and governance oversight of the funds to the DC Delegated Investment Manager, Mercer. For the purpose of this report, we shall refer to the DC Delegated Investment Manager as MWS (Mercer Workplace Savings).

The Trustee has appointed Mercer as its DC investment adviser. The investment adviser joins the F&ISC meetings quarterly to run through any material provided by MWS and detail the impact and relevance this has to the Scheme specifically. This will include carbon metrics and ESG ratings quarterly along with the MWS annual strategy review (inclusive of climate change analysis), ESG report and voting and engagement data annually. The Trustee reviews its investment adviser on a regular basis to ensure all stated processes for those managing / advising the Scheme on climate governance remain appropriate, and the Trustee has set objectives for its investment adviser which are assessed annually.

More information about MWS and their approach to governance is included in Appendix A.

In order to monitor the activities in this area, including how MWS identify and assess any climate-related risks and opportunities, the following reporting and actions are carried out:

- The Trustee receive quarterly performance reporting from Mercer. The reports provide details of Mercer's ESG rating for each of the underlying fund managers (this assesses how well the manager has integrated ESG and active ownership into their investment philosophy) and carbon metrics for the active equity funds. It is expected that these reports will be expanded to include carbon metrics for more funds when the data becomes available. This report is tabled for discussion at quarterly F&I meetings with the Scheme's investment advisers.
- The Trustee has access to the MWS Investment Governance Committee (the "MWS IGC") Responsible Investment & Voting policy which provides information about climate change management and the engagement priorities of the MWS IGC. One such engagement priority is climate change. This policy is reviewed annually, and any changes are highlighted to the Trustee by the DC investment adviser.
- The Trustee considers the outcome of the annual MWS strategy review and expects this to include details of climate scenario analysis considerations made with regard to the strategic asset allocation of the multi asset funds.
- The Trustee receives voting and engagement data on the funds used within the Scheme on an annual basis, this includes information on significant voting; significant votes are identified by holding size and association with engagement priorities (including climate change).
- The Trustee expects the MWS IGC to make available scenario analysis as required by the TCFD. This will be reviewed triennially after the first year. The Trustee will review the appropriateness of undertaking scenario analysis in light of data availability changes and/or material changes in the Scheme's investment strategy, on an annual basis.

- The Trustee expects the MWS IGC to make available metrics & targets as required by the TCFD. The Trustee will review the appropriateness of the target setting framework in light of the progress made against the target, on an annual basis.
- An annual MWS ESG report is prepared which considers, amongst other things, climate change metrics for the underlying funds used within the multi-asset funds. Going forward this report will provide an update on progress towards these funds' net-zero commitments. This report is presented by the investment adviser and considered by the F&IC at one of its quarterly meetings.

Role of other advisers or stakeholders deemed relevant

The Trustee also takes advice from external advisers, where appropriate. It ensures that the Scheme's actuarial, investment, covenant and legal advisers have clearly defined responsibilities in respect of climate change, that they have adequate expertise and resources to carry these out, and that they are taking adequate steps to identify, assess and prioritise any climate-related risks and opportunities which are relevant to the matters on which they are advising.

Investment advisers - the Trustee's investment advisers provide investment related strategic and practical support to the F&ISC in respect of the management of climate related risks and opportunities regarding the DB Section (provided by Brightwell) and DC Section (provided by Mercer). This includes provision of regular training and updates on climate related issues, climate change scenario modelling and ESG ratings.

Scheme Actuary - the Scheme Actuary will help the Trustee assess the potential impact of climate-related risks on the Scheme's funding where relevant.

Covenant adviser - the Trustee's covenant adviser will help the Trustee's understand the potential impact of climate-related risk on the sponsor covenant of the principal employer of the Scheme.



Strategy

DB Section

Assessing climate-related risks and opportunities

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.

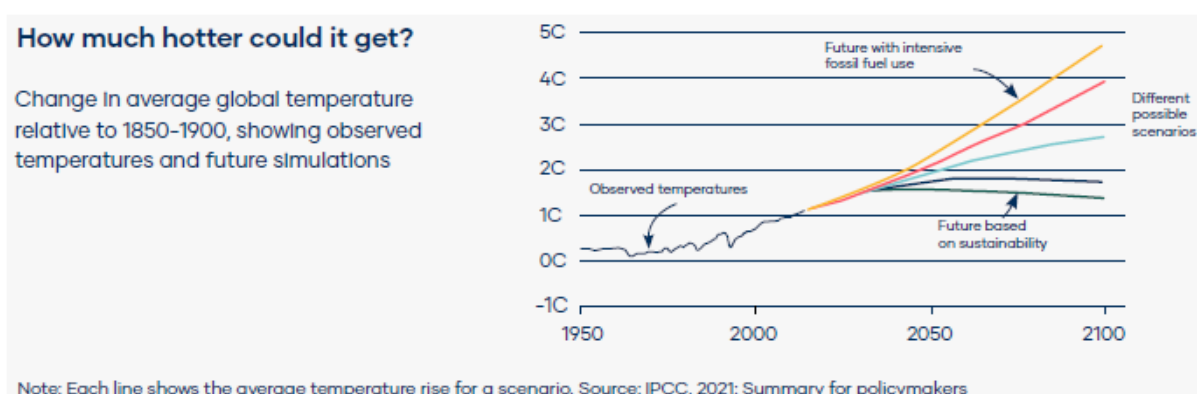
The Trustee has carried out a risk assessment on each asset class the Scheme is invested in based on information provided by the Scheme's investment managers. From this the Trustee has identified which climate-related risks and opportunities could have a material impact on the Scheme.

The Scheme's DB investment portfolio is diversified across a range of different asset classes including equities, fixed income, LDI, cash and alternatives.

Given the number of asset classes used in the Scheme, the Trustee has completed a best endeavours exercise to analyse the climate-related risks of each asset class.

Climate Change background

There continues to be overwhelming scientific evidence that climate change is accelerating. The world has already experienced around 1.0°C of average warming above pre-industrial levels, and continued increases will have an irreversible and catastrophic impact on the environment and our way of life.



The implications of climate change are systemic and apparent, with extraordinary weather events including flooding, drought, storms and wildfires increasing in frequency, and significant financial and human consequences. Climate change also has other potential negative implications for people and the planet, for example, reduced availability of water for human consumption in some parts of the world, agriculture, and hydro-electric power production. Moreover, severe heat can have detrimental health implications, resulting in strain on health services as well as the direct human impacts.

Climate-related risk assessment

Investments are potentially exposed to the physical risks of climate change and to the risk that the transition to a low carbon economy will make certain businesses, such as fossil fuel companies, unviable if they fail to change.

Transition risks

This relates to the risks and opportunities arising from efforts made to transition towards a net zero economy (both domestically and globally) to limit climate change. These risks and opportunities are generally expected to occur in the medium term, with some perhaps occurring in the short term. Risks arising could include regulatory or societal changes rendering parts of the business of invested companies worthless. For example, fossil fuels 'in the ground' which become economically unviable to extract due to either a lack of a suitable market or regulations preventing their extraction. Opportunities include early investment in assets which are likely to benefit from climate change adaptations, such as green energy providers.

There are more details outlined in Appendix B in relation to the types of transition risks and the financial impact these may have.

Physical risks

This relates to the direct impact of climate change on the Scheme and its members. These risks are expected to be longer-term in nature, but they are also expected to be limited in scope to the effects of climate change-related weather and other natural events on the businesses of invested companies, and the effect of changing temperatures on the mortality of Scheme members. These could have varying effects on the funding and investment strategy of the Scheme, but the direction and size of the effects is unlikely to be clear for a considerable period.

The TCFD recommendations refer to these hazards as acute and chronic, respectively. Acute hazards represent severe and extreme events and are location specific (e.g., droughts, heatwaves, storms, wildfire, etc). Chronic climate change represents the background incremental changes in, for example: temperature, precipitation, and sea-level rise over several decades.

Climate-related risk assessment (on asset class level)

The DB Scheme invests across a range of different asset classes and investment managers via pooled funds. As such, the Trustee’s ability to influence how each manager incorporates climate related issues is limited. However, the Trustee monitor how its managers incorporate climate risks and opportunities into the funds and asset classes in which the Scheme invests, with a focus on the medium term. The responses from its investment managers are summarised below.

	Physical Risk	Transition Risk
Equity	Green	Green
Illiquid Alternatives	Amber	Amber
Absolute Return	Amber	Amber/Green

Equity

Transition risks are the main climate-related risk associated with global equities over the medium term. Physical risks are expected to play out over the longer term. Regulatory changes (e.g., carbon taxes, increased compliance costs), market factors (e.g., increased raw material costs, changing consumer behaviour), and reputation risks are viewed as key transition risks that could negatively impact global equities over this timeframe. Albeit it is noted that the current composition of the index is weighted towards asset light service companies which tend to have both smaller physical and carbon footprints and are therefore less exposed to either physical or transition risk.

Credit

Relative to equity markets, corporate credit markets tend to have a higher exposure to climate risk due to the nature of the underlying companies i.e. more exposure to tangible capital. This allocation also includes some exposure to Emerging Market issuers which are more vulnerable to the physical effects of climate change.

Illiquid Alternatives

Both property and infrastructure assets are likely to be impacted by a combination of physical and transition risks. Physical risks arising from climate change could lead to asset damage and material financial impacts, particularly in geographically vulnerable areas.

The principal physical climatic risk experienced in the UK is fluvial flooding which occurs when waterways such as rivers, streams or brooks overflow their banks into surrounding area. Through its holdings in the US, the property portfolio is also exposed to other physical risks such as hurricanes and wildfires.

Transition risks, such as tenants preferring ‘green’ buildings and therefore making some buildings effectively ‘un-rentable’, are significant climate related issues.

LDI

The Scheme’s UK LDI portfolio is predominately invested in gilts. Increased financial burden of green tax breaks on the UK government poses a financial transition risk. Rolling out new technologies to households and organisations (e.g. smart meters, upgrading insulation etc) often requires government incentives which could add to the fiscal burden (and therefore financial risk) for the UK government.

Relative to elsewhere, the UK is expected to be less impacted by climate change due to both the service nature of the economy and the mild climate.

Climate-related opportunities

The Trustee maintain a dialogue with its investment managers to understand how the Scheme can benefit from climate-related opportunities. For the types of investments the Scheme holds, there were several opportunities noted and these are summarised below.

Global Equities

The Scheme invests synthetically i.e. passively in global equity and therefore is not able to actively seek out climate opportunities. Over time, as the global economy decarbonises, we would expect to see a greater share of the index exposed to low carbon activity.

Absolute Return

Following assessment of the physical and transition risks, the Scheme's managers focused their research on:

1. Companies that may experience profitability tailwinds or headwinds
2. Engagement with issuers to better understand and to map carbon output for underlying collateral pools
3. Engagement with regulators, asset managers and originators to agree standardisation of data metrics to enable greater focus and transparency of ESG and climate metrics to investors and to promote greater issuance of ESG and climate aligned bonds

Opportunities to invest in climate adaptation solutions should continue to expand, and companies whose innovations help society become more resilient to climate change will likely attract significant capital in coming years. Engaging with companies to help them build climate resiliency may also lead to better outcomes. For example, the increasing opportunities in low carbon transport offer opportunities focused on mitigation (such as electric vehicles and battery technology) and adaptation (such as the redesign of transport infrastructure) of climate-related risks.

Illiquid Alternatives

For the Scheme's property investments, the main opportunities are:

- Local or onsite energy generation and storage. For example, assets that have incorporated solar PV arrays, or provide storage systems for alternative energy systems. These support reduction in emissions, can provide an income stream to the owner, as well as offer reduced energy cost versus purchase from the grid.
- Use of green building materials which can have additional benefits of faster and lower cost construction, as well as reduce other environmental impacts (e.g., waste).
- Increased demand for green buildings from tenants, supporting rental premiums and reduced vacancy in assets which meet or exceed market standards.

Within Infrastructure, our managers have a long track record of deploying large amounts of capital into investments behind energy transition themes and continue to see opportunities that include:

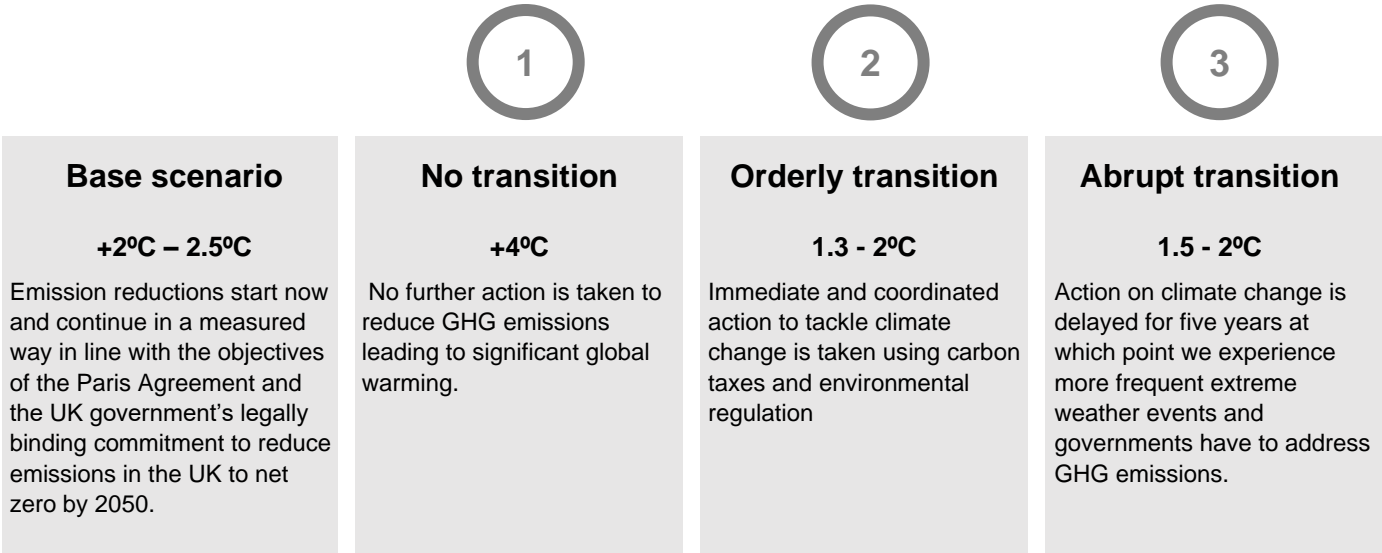
- Renewable energy platforms such as wind, solar and batteries to expand low-carbon energy production that support the addition of clean energy capacity to the energy mix and decarbonization of the power sector.
- Sustainable solutions focused on developing and growing decarbonisation technologies, given the need for net zero solutions. These include for example carbon capture and storage, green hydrogen, EV charging infrastructure biofuels.

Portfolio resilience and scenario analysis

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

The Trustee committed to rerun its scenario analysis once every three years as required by TCFD reporting, with the next exercise due by 31 December 2025. This is consistent with the regulatory guidance to update scenario analysis at least every three years. The Trustee considers scenario analysis when relevant to strategy decisions on an ongoing basis. Therefore, the results of last year’s exercise, which was carried out by the DB investment adviser at the time, Aon, have been included. Each scenario considers what might happen when transitioning to a low carbon economy under different conditions. The Trustee has chosen these scenarios because it believes that they provide a reasonable range of possible climate change outcomes albeit remain subject to considerable uncertainty.

The Trustee established a “base case” scenario against which the three climate change scenarios are compared. More details on the underlying assumptions can be found in Appendix E.



When considering the scenarios, this was done based on the Scheme’s long-term strategic asset allocation at the time, this is detailed below. We note that the Strategic Allocation has evolved since this point although not by enough to invalidate the conclusions.

Impact Assessment

The scenario analysis undertaken last year showed the Scheme’s investment portfolio exhibits reasonable resilience under most of the climate scenarios. This is largely due to the diversification of the assets.

The long-term worst-case scenario for the Scheme is no transition. Although initially the funding level improves in line with the base case, after c. 15 years the funding level fails to improve at the same rate as the other scenarios. This leaves the Scheme materially worse off in terms of surplus relative to the base case.

Another key risk is volatility of the funding level. Under the abrupt and orderly transitions, the Scheme experiences large falls in the funding level of around 10% before recovering – under the orderly transition this occurs in the next 1-3 years, and under the abrupt transition this takes place after around 5 years. Deterioration of the funding level may place a strain on the Sponsor covenant as they may have to make up a bigger shortfall through deficit contributions. It may also require the Scheme to re-risk in order to stay on track to achieve the funding target or extend the timeframe for achieving this.

Business, strategy, and financial planning

The Trustee recognises the importance of climate change and the risk it poses to the Scheme. The Trustee takes climate-related risks into account in determining its investment strategy.

A key risk identified from the analysis is the volatility of the funding level. Under both the orderly and abrupt transitions, the Scheme experiences sudden falls in funding within in the next five years, before recovering. The no transition scenario is the worse case for the Scheme, which is below all the other scenarios considered. Deterioration of the funding level will place a strain on the sponsor covenant, if the sponsor must make up a bigger shortfall through deficit contributions.

The Trustee therefore recognises that climate change may have an impact on the sponsor covenant. The Trustee monitors the covenant on a regular basis, with the support of its covenant adviser, and maintains a regular dialogue with the employer.

The Trustee is due to undertake its next valuation on 31 December 2024. As part of this the Scheme Actuary will help the Trustee assess the potential impact of climate change risk on the Scheme's funding assumptions for the DB Section. In addition, a detailed review of the covenant will be undertaken alongside this. The results of the assessment are expected to be included within the future TCFD Disclosures Reports.

DC Section

Mercer Workplace Savings (MWS) sets the investment strategy for the off-the-shelf lifestyle solution (SmartPath) which the Scheme is currently aligned to. MWS undertakes an annual strategy review of its off-the-shelf lifestyle option, including a review of the strategic asset allocation of the multi-asset funds and the glidepaths made available to members.

The Trustee undertake a triennial strategy review, the purpose of which is to ensure suitability of the default target (in terms of retirement destination) and to ensure the ongoing suitability of the MWS off-the-shelf glidepath for the Scheme. The most recent strategy review was carried out in September 2022.

This section of the report includes scenario analysis for the core default investment strategy as it is deemed a “popular arrangement” for the Scheme, as required by statutory guidance. The statutory guidance defines a popular arrangement as one in which £100m or more of the Scheme’s assets are invested, or which accounts for 10% or more of the assets used to provide money purchase benefits. The default investment strategy comprises of three funds - the Mercer Growth Fund, the Mercer Diversified Retirement Fund and the BlackRock Institutional Sterling Liquidity Fund – and these funds comprise approximately 79%, 6% and 1% of the Scheme’s total DC assets respectively (as at 31 December 2022, the previous Scheme year-end).

We note that climate scenario modelling is a complex process and there are limitations to the modelling. In particular:

- The further into the future you go, the less reliable any quantitative modelling will be.
- Looking at average asset class returns over multi-decade timeframes leads to invariably small impacts. The results are potentially significantly underestimated.
- There is a reasonable likelihood that physical impacts are grossly underestimated. Feedback loops or ‘tipping points’, like permafrost melting, are challenging to model particularly around the timing of such an event and the speed at which it could accelerate.
- Financial stability and insurance ‘breakdown’ are not modelled. A systemic failure may be caused by either an ‘uninsurable’ 4°C physical environment, or due to the scale of mitigation and adaption required to avoid material warming of the planet.

Most adaptation costs and social factors are not priced into the models. These include population health and climate-related migration. The Trustee aims to work with its investment advisor and investment managers to continuously improve the approach as more data becomes available.

The risks and opportunities identified by the Trustee are set out in the DC Section of the risk management section of the TCFD Report.

Time periods which the Trustee has determined should comprise the short, medium, and long term:

The time horizons identified by the Trustee for the purposes of the scenario analysis are detailed overleaf. Further information on the climate-related risks that are expected to materialise over these timeframes is set out below. These are in line with the likely time horizons over which a member’s benefits will be invested to and through retirement.

	DC Section
Short term	10 years (Representative of a member approaching retirement age)
Medium term	25 years (Representative of a member in the mid-career stage)
Long term	40+ years (Representative of a member in the 'early career' stage)

Climate-related risks and opportunities the Trustee has identified over the short, medium and long term

The Trustee recognise that the risks and opportunities arising from climate change are diverse and continuously evolving. Climate change presents risks over the short, medium and long term.

Over the short term (now to 2030), risks may present themselves through rapid market re-pricing relating to climate transition as:

- Scenario pathways become clearer. For example, the likelihood of a sub-2°C scenario occurring becoming higher and driving the transition risk to occur.
- Market awareness grows. For example, the implications of the physical impacts of climate change become clearer to markets and impact asset valuations.
- If policy changes unexpectedly surprise markets. For example, if a carbon price or significant regulatory requirement is introduced across key markets to which the portfolio is exposed, at a sufficiently high price to impact behaviour.
- Substitution of existing products and services with lower emission alternatives may impact part of the funds.
- Litigation risk relating to dangerous warming becoming more prevalent.
- Increases in the energy/heat efficiency of buildings and infrastructure.

The ability of the Trustee to consider these short-term changes can position the funds favourably, for example taking advantage of the climate transition by avoiding and reducing investment in high-emitting carbon sensitive businesses that do not have a business plan that supports the transition to a low carbon economy.

Over the medium term (2030-2050), risks associated with the transition to a low carbon economy are still likely to dominate. These include the development of technology and low carbon solutions. Policy and regulation are also likely to play a key role at the international, national, and subnational level. Technology and policy changes are likely to produce winners and losers both between and within sectors. Advancement of transition is likely to crystallise stranded asset risks over the medium term. The ability of the Trustee and investments managers to understand these changes may position the funds favourably, for example by increasing investments in new emerging technologies. The Trustee seek to select managers and indices that can identify potential emergence of low carbon opportunities and the decline of some traditional sectors.

Over the long term (post 2050), physical risks are expected to come to the fore. This includes the impact of natural catastrophes leading to physical damages through extreme weather events. Availability of resources is expected to become more important if changes in weather patterns (e.g. temperature or precipitation) affect the availability of natural resources such as water. The Trustee's and investment managers' ability to understand these changes may position the funds favourably in the future, for example increasing investments in infrastructure projects that display a high level of

climate resilience, etc. A changing climate may directly impact the viability of some assets or business models (for example, flood risk for real estate and the availability and cost of insurance).

Scenarios examined:

	DC Section
Rapid transition	Average temperature increase of 1.5°C by 2100. Sudden divestments across multiple securities in 2025 to align portfolios to the Paris Agreement goals which have disruptive effects on financial markets with sudden repricing followed by stranded assets and a sentiment shock. Following this shock there is a partial recovery.
Orderly transition	Average temperature increase of less than 2.0°C by 2100. Political and social organizations to act quickly and predictably to implement the recommendations of the Paris Agreement to limit global warming to below 2°C. Transition impacts do occur but are relatively muted across the broad market.
Failed transition	Average temperature increase above 4°C by 2100. The world fails to coordinate a transition to a low carbon economy and global warming exceeds 4°C above pre-industrial levels by 2100. Physical climate impacts cause large reductions in economic productivity and increasing impacts from extreme weather events. These are reflected in repricing events in the late 2020s and late 2030s.

This scenario analysis assesses the potential implications of climate change under three modelled scenarios over three different time horizons. The chosen scenarios help the Trustee understand the resilience of the investment strategy to different potential warming pathways.

Each scenario allows for climate impacts to be “priced-in” before they happen. Under the rapid transition risks are priced in around 2025. All scenarios have pricing in shocks relating to future physical damage around the end of the 2020s and the end of the 2030s. These shocks are most impactful in the failed transition scenario.

Our analysis assumes that at a market level transition risks are reasonably priced in, however longer-term physical risks are more likely to be mispriced. Transition risks remain at sector level and at the market level due to the potential for more extreme transition scenarios to occur. We express this view by modelling scenarios relative to a baseline scenario.

We assume a composite baseline scenario with the following weightings priced in:

- 40% Orderly Transition
- 10% Rapid Transition
- 10% Failed Transition
- The remaining 40% represents low impact scenarios and the potential for the transition to have an overall positive impact.

This is an ever-evolving space and as such the scenarios modelled may be subject to review in future periods.

Climate change scenario analysis has been undertaken on the three funds that comprise the default investment strategy, which is a popular arrangement for the Scheme.

The analysis is based on the strategic asset allocation of each fund; the long-term nature of the climate scenario analysis is better matched with the time horizon of the return assumptions used to set the strategic asset allocation, as opposed to the Dynamic Asset Allocation.

The results of these scenarios can be seen in the tables below.

Figure 1: Scenario analysis - Mercer Growth Fund, p.a. impact on return compared to baseline

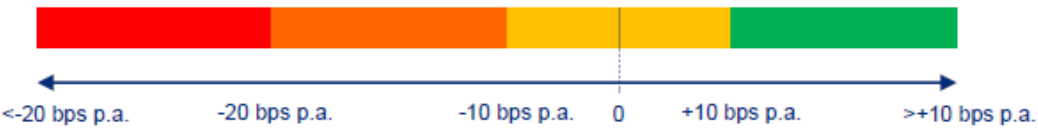
Scenario	10 years	25 years	40 years
Rapid transition	-0.5%	-0.1%	-0.1%
Orderly transition	-0.1%	-0.1%	-0.2%
Failed transition	-0.3%	-0.9%	-0.8%

Figure 2: Scenario analysis - Mercer Diversified Retirement Fund, p.a. impact on return compared to baseline

Scenario	10 years	25 years	40 years
Rapid transition	-0.2%	0.0%	0.0%
Orderly transition	0.0%	0.0%	-0.1%
Failed transition	-0.2%	-0.5%	-0.5%

Figure 3: Drawdown Glidepath (10% cash at retirement), p.a. impact on asset value compared to baseline

Scenario	10 years to retirement	25 years to retirement	40 years to retirement
Rapid transition	Orange	Yellow	Yellow
Orderly transition	Yellow	Yellow	Yellow
Failed transition	Orange	Red	Red



Source: Mercer calculations (as at 31 December 2022). Further details can be found in the Appendices.

The results of the scenario analysis provide the Trustee with a clear overview of how resilient the investment strategy is with regards to various different climate change outcomes. Our analysis illustrates that a failed transition is by far the worst in terms of long term returns and that the default strategy would be materially impacted under such a scenario, particularly over a 25 year or 40 year timeframe. Within the 10 year timeframe, the allocation to global equities is most exposed to a rapid transition.

Asset class resilience:

We are able to look at the resilience of different asset classes under the different scenarios. Over a 10 year timeframe:

- Global equities / private equity / sustainable equity is most exposed under a rapid / orderly / failed transition respectively; and
- Cash / sustainable global equities / emerging market debt are most likely to benefit from a rapid / orderly / failed transition respectively.

Strategy implications:

MWS considers exposure to carbon risk in the context of its role in asset allocation and investment strategy setting. One of the key beliefs incorporated into the investment arrangement is that a sustainable investment approach creates and preserves long-term value. This includes the consideration that climate change is a systemic risk and that it is necessary to consider the potential financial risks.

The Mercer Growth Fund and Mercer Diversified Retirement Fund both have explicit decarbonisation targets. More detail on this is provided in the section on "Risk Management".



Risk management

Our process for identifying and managing climate-related risks

The F&ISC recognise the long-term risks posed by climate change and has taken steps to integrate climate-related risks into the Scheme’s risk management framework.

The Trustee has taken the following steps to integrate climate-related risks into its risk management framework and processes and has integrated climate risk oversight within the overall risk management of the Scheme. Climate-related risks are assessed alongside the other risks factors, including risks from wider ESG risk factors and financial risks.

The Trustee seek to identify and assesses climate-related risks at the total portfolio level and at the individual asset level. The Trustee recognise that the tools and techniques for assessing climate-related risks in investment portfolios are imperfect but are rapidly evolving. The Trustee therefore aims to use the best available information and tools to assess climate-related risks and will receive regular training in order to understand the latest trends in climate science.

Approach to integrating climate related risks (“Risk Management Plan”)

	Activity	Approach	Frequency of review	Schedule
Governance	Training	Receive training on climate-related issues to ensure that the Trustee has the appropriate degree of knowledge and understanding on climate-related issues to support good decision-making.	Annual	Completed as part of first year reporting... Annual training thereafter.
	Advisers	Review adviser objectives to ensure advisers have appropriate climate capability, and bring important, relevant, and timely climate-related issues to the Trustee’s attention.	Annual	To be reviewed as part of review vs investment advisers’ objectives.
	Risk register	Trustee maintain a risk register to monitor and mitigate financially material risks.	Quarterly	Quarterly
	Actuarial and covenant	Ensure that actuarial and covenant advice adequately incorporate climate-related risk factors where they are relevant and material.	Triennial	Ensured for future valuations.
	Managers	Engage with the Scheme’s fiduciary manager to understand how climate risks are considered in their investment approach.	Annual	Considered as part of Climate Risk Assessment

Approach to integrating climate related risks (“Risk Management Plan”)

	Activity	Actions	Frequency of review	Proposed first year schedule
Strategy	Scenarios	Undertake quantitative scenario analysis to understand the impact of climate-related risks on the assets and liabilities. This will distinguish between physical and transition risks, where possible, and consider how to capture climate opportunities.	First year, Triennial thereafter	Considered as part of first year reporting in Q4 2022.
	Risks and opportunities	Identify and obtain specific advice on the climate-related risks and opportunities for investment & funding strategy and assess their likelihood and impact.	Annual	Considered as part of Climate Risk Assessment.
Risk Management	Risk prioritisation	Consider the prioritisation of those risks, and the management of those that represent the most significant potential for loss and those that are the most likely to occur.	Annual	Considered as part of Climate Risk Assessment.
	Stewardship	Ensure stewardship policy working effectively – the delegated investment manager and underlying fund managers have discretion over exercising voting rights and stewardship obligations. Ensure oversight of voting and engagement activity in investment portfolio is carried out – through the Implementation Statement.	Annual	Trustee annually receive MWS’ stewardship policies. Trustee annually receive and review the Implementation Statement.
	Scheme documentation	Include climate-related risks and opportunities in the Scheme’s documents such as the SIP and regularly review these.	Annual	Trustee to incorporate into existing SIP at next review.
	Covenant	Speak with the Scheme’s employer to identify climate-related risks to the employer over the short, medium, and long term.	Triennial, in line with funding valuation	Ensure for future valuations (next due 31 December 2024).
Metrics and targets	Metrics	Obtain data for metrics.	Annual	Completed as part of first year report and annually thereafter.
	Review	Review continued appropriateness of metrics and progress against climate-related target.	Annual	Review alongside production of TCFD disclosure.

DB Section

Climate Risk Questionnaire – Manager Responses

In order to assess the climate risk that the Scheme currently faces, the Scheme's investment managers have again been asked to complete the below template.

The Trustee posed the “top” questions as outlined in guidance from the Pensions Climate Risk Industry Group¹ to its investment managers. The questions were designed to assist the Trustee with its assessment of each manager’s capabilities and approach to climate management and focused on areas such as TCFD reporting, manager’s ability to conduct climate scenario analysis, engagement and escalation policies, manager’s ability to provide carbon related data and align their strategies to a particular temperature level.

The table below summarises the responses from the investment managers in the DB Section.

Asset class	Manager	TCFD Report	Climate-related risks analysis	Industry initiatives	Carbon reporting	NZ Commitment	PRI signatory	Stewardship Code
Fixed Income	Pimco	✓	✓	✓	✓	✓	✓	✓
	Insight	✓	✓	✓	✓	✓	✓	✓
Property and Infrastructure	Aviva	✓	-	✓	✓	✓	✓	✓
	UBS	✓	✓	✓	✓	✓	✓	✓
	M&G	✓	✓	✓	✓	✓	✓	✓
	KKR	✓	✓	✓	✓	-	✓	-
	ISQ	-	-	✓	✓	-	✓	-
	Basalt	✓	-	✓	✓	-	✓	✓
	Hayfin	-	-	-	✓	-	✓	✓
Private Equity and private credit	Chorus	-	-	✓	✓	-	✓	✓

Source: Investment managers

DC Section

The Trustee identifies investment strategy risks and includes these within the Scheme risk register which is reviewed quarterly. It is used to identify, prioritise, manage and monitor risks the Scheme is exposed to and managed through internal controls.

The Trustee will engage with MWS through its DC investment adviser to understand the activities undertaken with regard to climate change risk management. Annually, a formal investment strategy review is undertaken by MWS which incorporates climate change metrics and assesses progress against stated targets.

The Trustee receive quarterly performance reporting from Mercer. The reports provide details of Mercer’s ESG rating for each of the underlying fund managers (this assesses how well the manager has integrated ESG and active ownership into their investment philosophy) and carbon metrics for the active equity funds. It is expected that these reports will be expanded to include carbon metrics for more funds when the data becomes available. If a manager is considered to be 'lagging the market', MWS will engage with the relevant underlying investment manager(s) to strongly encourage that they improve their policies and practices in these areas. Any activity will be reported to the Trustee in ongoing reporting.

¹ Aligning your pension scheme with the Taskforce on Climate-Related Financial Disclosures recommendations - GOV.UK (www.gov.uk)

The Trustee also receive an annual ESG report from MWS which includes a section on stewardship to identify how underlying investment managers choose to vote and engage on climate issues (among other key engagement priorities), as well as how managers capture climate opportunities.

Both climate change related risks and wider investment risks are considered as important by the Trustee. The Trustee recognise the challenges with various metrics, tools and modelling techniques used to assess climate change risks. The Trustee aims to work with the DC investment adviser and MWS on a regular basis with the aim of improving its approach to assessing and managing risks over time. Climate change scenario analysis is strategic in nature and thus will be taken into consideration within wider strategy discussions by MWS in the design and construction of the investment solutions.





Metrics and Targets

Our climate-related metrics

The Trustee uses some quantitative measures to help it understand and monitor the Scheme's exposure to climate-related risks.

The Trustee's investment advisers, Brightwell and Mercer, collected information from the Scheme's managers on their GHG emissions. Brightwell and Mercer collated this information to calculate climate-related metrics for the Scheme's DB and DC portfolios.

Measuring greenhouse gas emissions

In line with The Department of Work and Pensions (DWP) TCFD regulations, pension schemes are required to report on a number of metrics to measure and track climate or emissions related performance. While imperfect, greenhouse gas (GHG) emissions are currently the most direct way for pension schemes to assess both their contribution to and risk exposure to climate change. .

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

Scope 1	Scope 2	Scope 3
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	These are the indirect emissions from the generation of electricity purchased and used by an organisation	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

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. Scope 3 emissions also introduce the problem of double counting.

These are the metrics that the Trustee has chosen to report on:

Absolute emissions	Total Greenhouse Gas emissions <i>(DB and DC Section)</i>	Total carbon emissions attributable to the portfolio, at a given point in time. Tonnes of carbon dioxide & equivalents (tCO2e).
Emissions intensity	Carbon footprint <i>(DB and DC Section)</i> <i>(Optional)</i>	The amount of tCO2e emitted per million dollars of BTPS' investments.
Emissions intensity	Weighted Average Carbon Intensity (WACI) <i>(DC Section only)</i>	The average amount of tCO2e emitted per million dollars of company revenues. Unlike the carbon footprint metric above portfolio weights are used to calculate the average. For sovereign bonds, where revenue is not generated, Gross Domestic Product (GDP) is used instead. It is currently common for this to be reported in US dollars irrelevant of domicile.
Portfolio alignment	Implied Temperature Rise <i>(DC Section only)</i>	Implied temperature rise is a forward-looking metric that considers the pledges, commitments and business strategy changes that underlying investee companies/issuers have made. It provides a prediction of the potential temperature rise over the rest of the century based on the activities of those companies and issuers as a temperature score.
Portfolio alignment	Binary Target Measures <i>(DB Section only)</i>	The metric illustrates the degree of portfolio alignment with the goals of the Paris Agreement (notably to limit warming to well below 2°C by the end of the century). Alignment of portfolio with a given climate outcome, based on the % of investments in that portfolio with declared net zero or Paris-aligned targets.
Additional metric	Data quality <i>(DB Section only)</i>	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).
Additional metric	Climate Value at Risk <i>(DC Section only)</i>	This has been selected on the basis that it provides a consistent and comparable measure of the level of confidence in the data. This measure aims to measure the size of the loss attributable to climate-related risks a portfolio may experience, within a given time horizon, if a particular scenario unfolds.

In line with regulatory requirements, this report looks at Scope 1 and Scope 2 emissions (for the second year) in addition to Scope 3 emission measures for the first time this year.

The Scheme's greenhouse gas emissions - summary

The Trustee observed that, unlike last year, all the Scheme's managers were able to provide at least some of the requested data. As a result, the reported emissions metrics include more of the Scheme's GHG emissions than was the case last year. This is partly why total emissions for the DB section have increased over the past 12 months. However, the main reason is the emissions attributed to the Scheme's government bond holdings have roughly doubled from 39,000 tCO₂e to 70,000 tCO₂e this year. This is because the Scheme's exposure to funded gilts has increased significantly over the period and government bonds have the highest carbon intensity within the portfolio. If the emissions from government bonds are stripped out the DB Scheme's reported emissions have roughly halved in absolute terms. Given the material changes in the Scheme asset allocation between March 2022 and December 2023, as well as improvements in coverage, it is difficult to draw meaningful conclusions with regard to the decarbonisation on a like for like basis.

The more meaningful comparisons we would draw attention to are the increase in coverage, from 61.8% to over 80% this year. Furthermore, this figure applies to both Scope 1 & 2 and Scope 3 emissions. The Trustee notes that the inclusion of Scope 3 emissions appears to roughly double overall portfolio emissions. It is also noteworthy that 72% of the current portfolio (versus 45% previously) is deemed to be aligned with some kind of net zero or decarbonisation ambition. This gives the Trustee confidence that portfolio emissions stand to fall over time, assuming companies and policymakers live up to their stated ambitions.

The Trustee note that there is no sensible way in which to aggregate emissions from sovereign bonds and the rest of the portfolio (it is not possible to obtain sovereign emissions that exclude corporate emissions) and avoid any double counting. Furthermore, managers may use different methods and assumptions when providing data to the Trustee. These issues are commonplace across the industry at the current time and highlight the importance of TCFD-aligned reporting to improve transparency on carbon-related data. The Trustee expects that in the future better information will be available from managers as the industry aligns to expectations and best practice standards. The Trustee, Brightwell and Mercer are engaging with managers to ensure that this improvement will be reflected in the future years' reporting.

The tables below summarise the DB and DC data gathered from the Scheme's managers:

DB Section - summary

	Total Greenhouse Gas emissions	Carbon footprint	Data quality	Portfolio Alignment (Binary Target)
Scope 1-2	84,200 tCO ₂ e	96 tCO ₂ e/£m	85%	72%
Scope 1-3	185,000 tCO ₂ e	211 tCO ₂ e/£m	82%	

As at 31 December 2023. Source: Brightwell and individual managers



Current position

Brightwell requested emissions data from the Scheme's managers, which represent all of the Scheme's assets.



Data availability

Data was received from every manager within the asset portfolio.

Where data was provided, it was available for 85% of the total portfolio assets.

DC Section - summary

	Absolute emissions (tCO ₂ e)	Carbon footprint (per £m invested)	Weighted Average Carbon Intensity ("WACI") (per \$m revenue generated)	Implied Temperature Rise (°C)	Aggregated 1p5 Climate Value at Risk (%)
Mercer Growth Fund	44,722	99.2	198.3	2.4	-16.3
Mercer Diversified Retirement Fund	2,947	74.1	150.1	2.2	-14.2

Source: MSCI ESG Data and Mercer calculations. As at 31 December 2023. Calculated figures are rebased for representative coverage.

DB Section – observations

The table below shows a more detailed breakdown of the emissions from each asset class in the Scheme's DB portfolio based on Scope 1 & 2 emissions (where available).

All the Scheme's managers were able to provide at least some carbon data. Furthermore, all except one were able to provide Scope 3 emissions which were reported on for the first time this year. Two managers in total were unable to provide binary target data. This is a significant improvement on last year and may reflect the greater awareness of climate risk and client demand for climate data.

Asset class	Market Value (£m)	Economic Exposure (£m)	Total emissions (tCO ₂ e)	Carbon footprint (tCO ₂ e/£m)	Data quality (%)	Binary Target Measures (%)
Equity	5	105	5,320	51	100	57
Absolute Return	53	53	3,880	73	67	30
Illiquid Alts	253	253	4,900	19	67	39
LDI	464	364	79,700	151	97	97
Total portfolio	774	774	84,200	96	85	72

As at 31 December 2023. Source: Investment managers/Brightwell.

When collecting the data, the Trustee noted the following:

- Overall, the availability of data was high.
- Data for most managers was provided at the fund level and required attribution based on the EEPS shareholding.
- The Trustee's investment manager and provider have estimated data for its LDI assets using government data (based on national territorial emissions) which is consistent with the Partnership for Carbon Accounting Financials (PCAF) guidance.
- Not all emissions data was reported as at year end 2023 but all were within 12 months of that date. The lag appears to be greatest for illiquid mandates. However, we note that even listed companies only report once a year such that the average disclosure point will be some months before the Scheme's reporting date.

DC Section - observations

This report presents climate-related metric analysis for the Scheme's DC Section's popular arrangements. The data is based on the actual holdings and allocations of the funds, i.e., including dynamic asset allocation.

The Trustee has agreed to report on the following five climate-related metrics for the DC Section. These are as follows:

- Absolute emissions
- Carbon footprint
- Weighted Average Carbon Intensity ("WACI")
- Implied Temperature Rise
- Climate Value at Risk

The climate-related metrics help the Trustee to understand the climate-related risk exposures and opportunities in the Scheme's investment portfolios and identify areas for further risk management, including investment manager portfolio monitoring, and voting and engagement activity and priorities. The Trustee recognises the challenges with various metrics, tools and modelling techniques used to assess climate change risks.

The Trustee aims to work with its investment adviser and investment managers to continuously improve the approach to assessing and managing risks over time as more data becomes available. The Technical Notes in Appendix C of this report sets out the data limitations and assumptions used in collating these metrics

The Trustee will receive these metrics on an annual quarterly basis from the DC investment adviser on behalf of MWS, and this will be reported on an annual basis in future TCFD reports. MWS will periodically review their selection of metrics to ensure they remain appropriate – but ultimately the Trustee will decide which metrics to report on.

Due to practical data availability, the figures quoted in the report assume that companies not covered by the analysis are represented within the range of companies that have been covered in the analysis – the 'pro-rata' approach (i.e., it is not assumed that companies not covered have emissions of 0) in line with statutory guidance. The Trustee recognise that the availability of accurate data for some asset classes is an industry wide issue and will look to MWS to encourage underlying managers, and the companies in which they hold these assets, to improve their climate (and carbon) reporting as quickly as possible.

We have provided an absolute emission figure for the multi-asset funds' listed assets, excluding sovereign debt. There is no market consensus on how best to calculate an absolute emissions figure for sovereign debt. Due to the nature of the underlying investments within the systematic macro asset class the investment manager has assumed zero carbon emissions for this holding. This strategy solely utilises derivative contracts for which there is currently no agreed approach to assign carbon emissions.

There is currently no industry consensus on reporting for money market instruments as held within the Blackrock Sterling Liquidity Fund. The Trustee will work closely with their investment adviser and the investment manager to stay apprised of industry developments and provide metrics for this fund in the future.

Mercer Growth Fund (31 December 2023)

The total absolute emissions (Scope 1 & 2) associated with the Scheme's holding in the listed portion of the Mercer Growth Fund is 44,722 tonnes based on a Scheme holding of £536.6m and 84% of the fund invested in listed assets.

Asset Class	Fund Weight	Coverage for WACI	Listed assets (84% of the fund)		Sovereign assets (16% of the fund)	Implied Temperature Rise	Aggregated 1p5 Climate VaR (%)
	(%)	(%)	WACI	Carbon Footprint	WACI		
			(per \$m revenue generated)	(per £m invested)	(per \$m GDP)	°C	(%)
UK Equity	3.0%	93.9%	85.9	87.4	-	2.3	-25.0
Europe (ex-UK) Equity	4.0%	100.0%	89.9	82.7	-	2.0	-10.2
Japan Equity	2.0%	100.0%	78.5	80.3	-	2.3	-7.8
Multi-Factor Global Equity	6.0%	100.0%	85.6	80.2	-	2.4	-14.5
Sustainable Global Equity	7.5%	99.8%	31.9	12.4	-	1.7	-5.4
Emerging Markets Equity	14.0%	99.8%	300.4	178.6	246.3	2.7	-25.8
Small Cap Equity	8.0%	99.7%	128.7	97.0	-	2.5	-16.4
Low Volatility Equity	6.5%	99.9%	83.6	29.5	-	1.8	-11.2
Listed Infrastructure Equity	7.5%	99.8%	640.1	171.6	-	2.2	-15.9
Global REITs	9.5%	99.8%	81.3	9.5	-	1.7	-8.5
Systematic Macro	6.0%	0.0%	-	-	-	-	-
Global High Yield Bonds	4.0%	79.1%	197.1	143.5	-	2.8	-23.6
Asia High Yield Bonds	3.0%	87.7%	560.4	321.2	1,318.5	3.8	-42.2
Emerging Market Debt	10.0%	0.0%	-	-	751.2	-	-
Absolute Return Bonds	0.3%	53.0%	81.5	60.2	393.8	2.3	-13.0
Corporate Bonds (UK)	0.8%	91.8%	68.7	46.9	488.6	1.9	-12.4
Corporate Bonds (US)	0.8%	96.6%	289.4	82.8	-	2.5	-16.7
Corporate Bonds (Euro)	0.8%	97.4%	95.9	85.4	-	2.1	-13.8
Short Duration 1	1.8%	96.2%	56.0	34.3	235.3	2.0	-9.6
Short Duration 2	0.0%	78.3%	70.7	28.1	259.9	2.3	-10.1
Cash	0.0%	0.0%	-	-	-	-	-
Global Inflation Linked Bonds	4.8%	0.0%	-	-	178.7	-	-
Pro-Rated Total	100.0%		198.3	99.2	558.3	2.4	-16.3

Scope 3	Upstream	Downstream
Carbon Footprint (tCO2e/£m invested)	106.4	208.7
WACI (tCO2e/\$m revenue)	207.7	274.9

All data shown as at 31 December 2023. Some of the underlying data has been provided by MSCI which is ©2023 MSCI ESG Research LLC. Reproduced by permission. Although information providers, including without limitation, MSCI ESG Research LLC and its affiliates (the "ESG Parties"), obtain information from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness of any data herein. None of the ESG Parties makes any express or implied warranties of any kind, and the ESG Parties hereby expressly disclaim all warranties of merchantability and fitness for a particular purpose, with respect to any data herein. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein. Further, without limiting any of the foregoing, in no event shall any of the ESG Parties have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages. Data Source: MSCI ESG and Mercer calculations. Calculated figures are rebased for representative full coverage. Proxies are applied where appropriate. Figures are based on best-available data at time of calculation. Calculation methodologies are subject to change based on evolving market standards. Coverage is defined as the proportion of the asset class that usable carbon emission and revenue data are available for, i.e. if we have a coverage value of 99.8% of an underlying fund / asset class this means 0.2% of the data is missing. For the basis of these calculations it is assumed that the missing 0.2% behaves in a similar way to the available data and so the available data is pro-rated to account for the missing data. While this is an assumption, we believe this is a reasonable proxy to be used. Scope 1 and 2 emissions are as defined by the GHG protocol - Greenhouse Gas Protocol | (ghgprotocol.org) Please note that Carbon Footprint is provided in USD by the fund manager, we have converted to GBP using the following exchange rate, USD/GBP – 0.83132 as at 31 December 2022. Sourced from Refinitiv. Data quality for Scope 1 and 2 is split between; not eligible, sovereigns, reported, estimated and not reported. Data quality for Scope 3 is split between; not eligible, sovereigns, estimated and not estimated. Whilst a level of reported data is available under scope 3, given the vast discrepancies in scope 3 calculation methodologies across underlying companies we are using estimated data where possible for consistency in reporting. This approach will be reviewed in future as scope 3 data becomes more reliable. Upstream Scope 3 emissions: defined as indirect carbon emissions related to purchased or acquired goods and services; and Downstream Scope 3 emissions: defined as indirect carbon emissions related to sold goods and services.

Mercer Diversified Retirement Fund (31 December 2023)

The total absolute emissions (Scope 1 & 2) associated with the Scheme's holding in the listed portion of the Mercer Diversified Retirement Fund is 2,947 tonnes based on a Scheme holding of £56.2m and 71% of the fund invested in listed assets.

Asset Class	Fund Weight	Coverage for WACI	Listed assets (71% of the fund)		Sovereign assets (29% of the fund)	Implied Temperature Rise	Aggregated 1p5 Climate VaR (%)
	(%)	(%)	WACI	Carbon Footprint	WACI		
			(per \$m revenue generated)	(per £m invested)	(per \$m GDP)	°C	(%)
UK Equity	1.5%	93.9%	85.9	87.4	-	2.3	-25.0
European Equity	2.5%	100.0%	89.9	82.7	-	2.0	-10.2
Japan Equity	2.0%	100.0%	78.5	80.3	-	2.3	-7.8
Sustainable Global Equity	5.5%	99.8%	31.9	12.4	-	1.7	-5.4
Emerging Markets Equity	3.0%	99.8%	300.4	178.6	246.3	2.7	-25.8
Low Volatility Equity	10.5%	99.9%	83.6	29.5	-	1.8	-11.2
Listed Infrastructure Equity	4.0%	99.8%	640.1	171.6	-	2.2	-15.9
Global REITs	6.0%	99.8%	81.3	9.5	-	1.7	-8.5
Systematic Macro	5.0%	0.0%	-	-	-	-	-
Global High Yield Bonds	4.0%	79.1%	197.1	143.5	-	2.8	-23.6
Asia High Yield Bonds	3.0%	87.7%	560.4	321.2	1,318.5	3.8	-42.2
Emerging Market Debt	5.5%	0.0%	-	-	751.2	-	-
Absolute Return Bonds	0.3%	53.0%	81.5	60.2	393.8	2.3	-13.0
Corporate Bonds (UK)	8.8%	91.8%	68.7	46.9	488.6	1.9	-12.4
Corporate Bonds (Euro)	2.8%	97.4%	95.9	85.4	-	2.1	-13.8
Corporate Bonds (US)	0.3%	96.6%	289.4	82.8	-	2.5	-16.7
Global Buy & Maintain Credit	5.0%	96.3%	148.6	74.4	251.7	2.5	-17.6
Short Duration Global Bond (Fund 1)	4.9%	96.2%	56.0	34.3	235.3	2.0	-9.6
Short Duration Global Bond (Fund 2)	4.9%	48.4%	51.3	39.7	257.2	2.2	-9.9
Global Index-Linked Bonds	4.8%	0.0%	-	-	178.7	-	-
Index-Linked Gilts	4.0%	0.0%	-	-	131.7	-	-
UK Gilts	11.3%	0.0%	-	-	131.7	-	-
Cash	0.8%	0.0%	-	-	-	-	-
Total	100.0%		150.1	74.1	281.6	2.2	-14.2

Scope 3	Upstream	Downstream
Carbon Footprint (tCO2e/£m invested)	79.8	162.6
WACI (tCO2e/\$m revenue)	163.0	275.1

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Looking to the future

Our climate-related target

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

DB Section

Last year the Trustee set two separate targets to improve the data quality metric and improve portfolio alignment:

1. **An increase in carbon emissions data reported by 15% by 31 December 2025 (versus baseline of 78% of managers by AUM or 62% of total assets).**

Progress report - As at December 2023 data was received from managers covering 100% of AUM and 85% of total assets which means this target has been met two years early, albeit partly facilitated by the change in asset allocation.

2. **At least 50% increase in portfolio alignment in Equity, Absolute Return and Illiquid Alternatives by 31 December 2025. These figures stood at 42.0%, 4.2% and 37.2% respectively in last year's report.**

Progress report - In this year's report the Trustee notes a significant improvement in the Absolute Return category, in excess of 50%, a material increase for the Equity allocation and a marginal increase in the Illiquid Alternatives category.

The Trustee remain committed to:

- Improving the reporting of carbon emissions data and attribution of year-on-year changes.
- Engaging with its fiduciary manager and requiring them to engage with underlying investment managers on the quality of companies held, both in our long-term mandates.
- Engaging with absolute return and illiquid alternatives managers to improve the consistency and comparability of data.
- Participating in industry initiatives to require companies and different asset classes to disclose more data.

DC Section

In order to manage members' exposure to climate-related risks a target has been set against the Weighted Average Carbon Intensity ("WACI") for the Mercer Growth and Mercer Diversified Retirement funds.

The Trustee agree with the target as set by the delegated investment manager, MWS, and will adopt it going forward. The Scheme and MWS are committed to reducing the overall carbon intensity over time.

The DC Section of the Scheme has committed to a target of net-zero absolute carbon emissions by 2050 for the Growth Fund and Diversified Retirement Fund. To achieve this, the DC Section of the Scheme plans to reduce portfolio relative carbon emissions by at least 45% from 2019 baseline levels by 2030, as measured by WACI. This target considers only Scope 1 & 2 emissions data given the availability of data in the baseline year. The Trustee has agreed to the ongoing suitability of the target set.

The Trustee will be working closely with the investment manager to identify and manage a staged emissions reduction plan, oversee fund allocations to climate solutions, and steward an increase in transition capacity across the funds. Progress on reductions will be monitored and reported to members on an annual basis.

A summary of the progress to date against this interim target is shown in the figures below. WACI figures based on listed assets only, measures as carbon emission (in tonnes) / \$m revenue, and does not include sovereign assets.

We are currently unable to set a target for the BlackRock Institutional Sterling Liquidity fund given the lack of metric data pending a consensus on calculating metrics for money market instruments. The Trustee will be monitoring this situation.

Mercer Growth Fund:

	Baseline 31 December 2019	Current 31 December 2023	Change
WACI (tCO ₂ e/\$m revenue)	330	198	-40%

Source: MSCI ESG Data and Mercer calculations. Calculated figures are rebased for representative coverage.

Mercer Diversified Retirement Fund:

	Baseline 31 December 2019	Current 31 December 2023	Change
WACI (tCO ₂ e/\$m revenue)	274	150	-45%

Source: MSCI ESG Data and Mercer calculations. Calculated figures are rebased for representative coverage.

We note that significant progress (i.e. reductions of c.40%-45%) has been made versus the climate-related target since 2019. However, it is important to note that decarbonisation progress will not be linear and progress could fluctuate.

MWS provided the following commentary regarding the reduction in the Mercer Growth WACI over the year to 31 December 2023:

- There was a 6% reduction in WACI over the year; now at 40% reduction since baseline.
- Most of this reduction occurred during 2022 as a result of the benchmark change to listed infrastructure equity and low volatility equity.

- The reductions in 2023 were driven by lower allocation to passive Global High Yield bonds (which have a higher WACI) and progressive decarbonisation built in to the infrastructure benchmark construction.
- Detractors were the inclusion of actual holdings of Asia High Yield Bonds (i.e. improved data coverage) and passive Emerging Market Equity increase in WACI paired with increased allocation (this strategy has a higher WACI).

MWS provided the following commentary regarding the reduction in the Mercer Diversified Retirement Fund over the year to 31 December 2023:

- There was a 4% reduction over the year; now at 45% reduced WACI versus baseline.
- The reductions in 2023 were driven by a higher allocation to credit, with a more muted reduction to passive Global High Yield Bonds.
- The main driver was a 20% reduction in Global Credit WACI and a reduced allocation to US Corporate Bonds along with decarbonisation in the strategy itself.
- Detractors were the inclusion of actual holdings of Asia High Yield Bonds (i.e. improved data coverage) and passive Emerging Market Equity increase in WACI paired with increased allocation (this strategy has a higher WACI).

Appendices

Appendix A: DC Section - Mercer Workplace Savings

Governance

- The day-to-day investment activities (including the selection, retention, and realisation of investments) are delegated by Mercer to underlying investment managers (“sub-investment managers”). These sub-investment managers are expected to have consistent processes in place to incorporate the assessment of ESG risks and opportunities (including climate change) in their security selection and portfolio construction. Mercer use Mercer’s proprietary ESG-rating system of investment managers to identify those sub-investment managers which meet these requirements. Mercer will engage with sub-investment managers where they are perceived to be lagging behind peers for ESG integration and or voting behaviour and disclosures.
- MWS clients benefit from the oversight of the Mercer Workplace Savings Investment Governance Committee (the “MWS IGC”). The MWS IGC is made up of senior individuals within Mercer’s investments business. The MWS IGC meet at least quarterly and are responsible for ensuring that the investment arrangement is suitable and that it reflects Mercer’s best ideas, including research from Mercer’s dedicated sustainable investment team. The MWS IGC have their own Responsible Investment & Voting Policy.
- The MWS IGC include the integration of sustainability at the strategic asset allocation (in the case of multi-asset funds) and manager selection level and monitor performance and investment managers on an ongoing basis. The MWS IGC annual investment strategy review considers the output of climate scenario analysis in relation to the strategic asset allocation of the multi-asset funds (e.g., Mercer Growth, Mercer Diversified Retirement).

Appendix B: Climate Risk Assessment – transition risks

Transition risks relate to the need to transition to a low-carbon economy, including development of, and investment in, new technologies and services that support this transition as well as government policy to aid in the transition. Examples of climate-related risks and potential financial impacts include:

	Climate-related risks	Potential financial impacts
Policy and legal	<ul style="list-style-type: none"> Increased pricing of GHG emissions Enhanced emissions-reporting obligations Mandates on and regulation of existing products and services Exposure to litigation 	<ul style="list-style-type: none"> Increased operating costs (e.g. higher compliance costs, increase insurance premiums) Write-offs, asset impairment and early retirement of existing assets due to policy changes Increased costs and/or reduced demand for products and services resulting from fines and judgments
Technology	<ul style="list-style-type: none"> Substitution of existing products and services with lower emissions options Unsuccessful investment in new technologies Costs to transition to lower emissions technology 	<ul style="list-style-type: none"> Write-offs and early retirement of existing assets Reduced demand for products and services Research and development (R&D) expenditures in new and alternative technologies Capital investments in technology development Costs to adopt/deploy new practices and processes
Market	<ul style="list-style-type: none"> Changing customer behaviour Uncertainty in market signals Increase cost of raw materials 	<ul style="list-style-type: none"> Reduced demand for goods and services due to shift in consumer preferences Increased production costs due to changing input prices (e.g. energy, water) and output requirements (e.g. waste treatment) Abrupt and unexpected shifts in energy costs Change in revenue mix and sources, resulting in decreased revenues Re-pricing of assets (e.g. fossil fuel reserves, land valuations, securities valuations)
Reputation	<ul style="list-style-type: none"> Shifts in consumer preferences Stigmatisation of sector Increased stakeholder concern or negative stakeholder feedback 	<ul style="list-style-type: none"> Reduced revenue from decreased demand for goods / 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 (e.g. employee attraction and retention) Reduction in capital availability

Appendix C: DC Section: Climate-related Analysis

Scenario analysis and carbon metrics analysis

MSCI

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Technical Notes

Details of proxies used

Asset Class	Proxy Used
UK Equity	FTSE All Share Index
Europe (ex UK) Equity	MSCI Europe ex UK Index
Japan Equity	MSCI Japan Index
Systematic Macro	Cash
Asia High Yield Bonds	Mercer Global High Yield
Emerging Market Debt	JP Morgan EM GBI
Corporate Bonds (UK)	ICE BofAML Sterling Non-Gilt Index
Corporate Bonds (US)	ICE BofAML US Corporate Index
Index-Linked Gilts	MGI UK Inflation Linked Bond Fund
UK Gilts	FTSE Act. Gilts All Stocks Index

Coverage is defined as the proportion of the asset class that usable carbon emission and revenue data are available for, i.e., if we have a coverage value of 99.8% of an underlying fund / asset class this means 0.2% of the data is missing. For the basis of the metric calculations, it is assumed that the missing 0.2% behaves in a similar way to the available data and so the available data is pro-rated to account for the missing data, this pro-rated figure is presented in the table. While this is an assumption, we believe this is a reasonable proxy to be used.

When calculating tonnes of carbon dioxide equivalent emissions (tCO2e) Scope 1 and 2 emissions are reported separately to scope 3 emissions. This is for two reasons; 1) coverage of scope 3 disclosure remains insufficient to use reliably and 2) inclusion may lead to double counting at portfolio level. Scope 1, 2 and 3 emissions are as defined by the GHG protocol - Greenhouse Gas Protocol | (ghgprotocol.org)

Appendix D: Glossary

Governance	refers to the system by which an organisation is directed and controlled in the interests of shareholders and other stakeholders. ² 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. ³
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, considering the risks and opportunities it faces and the environment in which it operates. ⁴
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. ⁵
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. ⁶
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. ⁷
Greenhouse gas emissions ("GHG") scope levels⁸	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. ⁹

² A. Cadbury, [Report of the Committee on the Financial Aspects of Corporate Governance](#), London, 1992.

³ OECD, [G20/OECD Principles of Corporate Governance](#), OECD Publishing, Paris, 2015.

⁴ TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017

⁵ TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017

⁶ TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017

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

⁸ World Resources Institute and World Business Council for Sustainable Development, [The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard \(Revised Edition\)](#), March 2004.

⁹ PCC, [Climate Change 2014 Mitigation of Climate Change](#), Cambridge University Press, 2014.

- 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).¹⁰
- 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.¹¹
- 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.¹²



¹⁰ TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017
¹¹ TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017
¹² Energy Saving Trust, [What is net zero and how can we get there?](#) - Energy Saving Trust, October 2021