EDF Group of the Electricity Supply Pension Scheme

Climate Change Governance and Reporting in line with the Task Force on Climate-Related Financial Disclosures (TCFD)
Report for the period 1 April 2022 to 31 March 2023

Executive Summary

This report sets out the approach of the Group Trustee of the EDF Group of the ESPS (the Group) with regards to assessing, monitoring and mitigating climate-related risks in the context of the Group Trustee's broader regulatory and fiduciary responsibilities to their members.

The Group Trustee supports the recommendations set out by the Taskforce on Climate-Related Financial Disclosures (TCFD) on the basis that it will allow the Group Trustee to more closely assess, monitor and mitigate climate-related risks on behalf of its members. This is the Group Trustee's second disclosure under the framework; however, this report is expected to continue to evolve over time as industry best practice evolves.

This report has been prepared in accordance with the regulations contained within the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 and the Occupational Pension Schemes (Climate Change Governance and Reporting) (Amendment, Modification and Transitional Provision) Regulations 2022. The report incorporates the Department for Work & Pensions' (DWP) statutory guidance (Governance and reporting of climate change risk: guidance for trustees of occupational schemes) published in October 2022 as well as the Pensions Regulator's (TPR) guidance (Governance and reporting of climate-related risks and opportunities) published in September 2022, and provides a status update on how the Group is currently aligning with each of the four elements set out in the regulations (and in line with TCFD's Principles of Effective Disclosure). Details on these elements are below:

Governance: The Group's governance around climate-related risks and opportunities

The Trustee Board of the Group retains ultimate responsibility for identifying, assessing, and monitoring climate-related risks and opportunities, with day-to-day oversight delegated to the sub-committee of the board, the Investment Committee (IC).

The Group Trustee requires their appointed investment managers to be cognisant of climate-related risks and opportunities. Active engagement with the Group's appointed investment managers is conducted by the Group Trustee and the Group's Investment Consultants, Redington for DB assets and Mercer for DC assets. Active engagement with underlying companies the Group is invested in, is delegated to the Group's investment managers.

The Group Trustee and IC receive regular training relating to responsible investment, climate change in the context of investing and fiduciary responsibility. The Group Trustee deems the training it has received as sufficient in providing the Group Trustee with the necessary knowledge and understanding of climate-related risks and opportunities.

Strategy: The actual and potential impacts of climate-related risks and opportunities on the Group's investment strategy and financial planning

The Group Trustee considers climate-related risks and opportunities across short-, medium-, and long-term periods on the Group's investment and funding strategy. These risks are assessed via climate-related scenario analysis. The results of this climate-related analysis for the DB and DC Section are as at 31 March 2023.

For the DB Section, the Group Trustee has engaged with the Group Actuary, Aon and covenant advisor, Penfida to understand how various climate scenarios will impact the Group's longevity and Sponsor strength. For the DC Section, the Group Trustee has engaged with Mercer and the DC delegated investment manager, MWS to analyse the additional climate change impact on return p.a. to 2030, 2050 and 2100 based on the strategic asset allocation as at 30 September 2021.

The Group Trustee continues to explore investment opportunities which are both appropriate for the Group from an investment perspective and aligned with the goals of the Paris Agreement. This was looked at by the Group Trustee in June 2022 and the Group Trustee has since appointed an ESG equity fund manager, Stewart Investors, to manage a portion of the Group's equity allocation. The Group Trustee also moved their investment in M&G Alpha Opportunities Fund to the M&G Sustainable Total Return Credit Investment Fund. The Group Trustee believes that investing in such opportunities can be neutral or even positive from a traditional risk/return perspective and is therefore consistent with its fiduciary responsibility.

Risk Management: The processes used to identify, assess and manage climate-related risks

The Group Trustee has integrated climate change risk into the Group's wider risk management framework. The Group Trustee considers the impact of climate-related risks on all the assets in which it invests by conducting and reviewing the results of climate-related stress tests on a periodic basis.

The Group Trustee believes engagement with the Group's investment managers is one of the main ways in which the Group Trustee is able to manage climate-related risks and opportunities. The majority of this engagement is carried out on behalf of the Group by the Group's Investment Consultants.

Metrics and Targets: The metrics and targets used to assess and manage relevant climate-related risks and opportunities.

On a quarterly basis, the Group Trustee receives performance reporting from Mercer for the DC section, which provides details of Mercer's ESG rating for each of the underlying investment managers 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 IC meetings with the Group's investment advisors.

On an annual basis, the Group Trustee monitors the DC section's climate change metrics through an annual MWS ESG report for underlying funds within the multi-asset funds. Going forward this report will provide an update on progress towards these funds' net-zero commitments.

The Group Trustee also monitors the DB Section's metrics on at least an annual basis as part of an ESG dashboard provided by Redington. The Group Trustee will periodically review its selection of metrics to ensure they remain appropriate for the Group. These were last reviewed in December 2022 when the Group Trustee decided to also start monitoring the Science Based Targets initiative (SBTi) metric.

As at the date of this report, the Group Trustee has agreed to a Paris-aligned target for the DB section to reduce total greenhouse gas emissions of the Group's DB assets to net zero by 2050, with a 50% reduction by 2030. To date the Group's emissions have reduced by 17.5% since the baseline year (2021).

The Group Trustee will use the results from the stress test and carbon emission analysis to identify the climate-related risks and opportunities. These might include, for example, engaging with investment managers who have material carbon intensity levels or with other industry participants, exploring low-carbon alternative investment options, and updating investment guidelines for investment managers where the Group Trustee has discretion to make such changes.

The Group's full 2022 TCFD report can be located on pages 1 to 47 and is also available to download from the download centre on the EDF Energy website **https://www.edfenergy.com/download-centre**

Signed on behalf of EDFG Trustee Limited as Group Trustee of the EDF Group of the Electricity Supply Pension Scheme

Joanna Matthews

.....

Chair of the Group Trustee

26 September 2023

EDF Group of the Electricity Supply Pension Scheme

Climate Change Governance and Reporting in line with the Task Force on Climate-Related Financial Disclosures (TCFD)

Report for the period 1 April 2022 to 31 March 2023

Full Report

Introduction

This report sets out the approach of the Group Trustee of the EDF Group of the Electricity Supply Pension Scheme (the Group) with regard to assessing, monitoring and mitigating climate-related risks in the context of the Group Trustee's broader regulatory and fiduciary responsibilities to its members over the period 1 April 2022 to 31 March 2023.

The Group Trustee supports the recommendations set out by the Taskforce on Climate-Related Financial Disclosures (TCFD) on the basis that they will allow the Group Trustee to more closely assess, monitor, manage and mitigate climate-related risks on behalf of its members. This is the Group Trustee's second disclosure under the framework; however, this report is expected to continue to evolve over time as industry best practice evolves. This report will be drafted annually and published within seven months of the Group's scheme year end.

This report has been prepared in accordance with the regulations contained within the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 and the Occupational Pension Schemes (Climate Change Governance and Reporting) (Amendment, Modification and Transitional Provision) Regulations 2022. The report incorporates the Department for Work & Pensions' (DWP) statutory guidance (Governance and reporting of climate change risk: guidance for trustees of occupational schemes) published in October 2022 as well as the Pensions Regulator's (TPR) guidance (Governance and reporting of climate-related risks and opportunities) published in September 2022, and provides a status update on how the Group is currently aligning with each of the four elements set out in the regulations (and in line with TCFD's Principles of Effective Disclosure). Details on these elements are below:

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

The Group Trustee's current position with regard to each of these elements is summarised in the following pages:

Part 1: DB Section – pages 3 to 26 (covering £6.4bn asset value as at 31 March 2023)

Part 2: DC Section – pages 27 to 46 (covering £67.9m asset value as at 31 March 2023)

The Group Trustee has reviewed all elements across both Sections but has focussed in greater detail on the DB Section due to its relative size compared to the DC Section and also due to the delegated authority nature of the DC Section. The Group Trustee confirms that the same process has been followed across both Sections.

Part 1: DB Section

1. Governance

Oversight of climate-related risks and opportunities

The Group Trustee's Board is ultimately responsible for identifying, assessing, monitoring and managing climate-related risks and opportunities which are relevant to the Group. However there is a sub-committee of the Board, the Investment Committee (IC) that has been delegated the day to day responsibility for ensuring that the established policy for monitoring climate-related risks and opportunities is integrated into the Group Trustee's investment strategy, risk management and decision making. In keeping with this governance structure, this report has been reviewed by the IC and approved by the Group Trustee Board. There are no other persons undertaking governance activities in relation to the DB Section.

The established policy for monitoring climate-related risks and opportunities is included in the Group's Investment Policies document, an extract of which is shown within Part 1: Appendix A subsection TCFD. The policy includes monitoring the Group's climate-related metrics and the results of climate scenario analysis, as well as engaging with the Group's investment managers on climate-related matters.

The Group Trustee also requires its appointed investment managers to be cognisant of climate-related risks and opportunities within their investment processes as applied to the assets of the Group Trustee. The Group Trustee aspires to continue increasing the level of engagement with its investment managers in order to ensure that adequate steps are being taken in this respect. The Group Trustee relies on the manager research and manager monitoring capabilities of its DB Investment Consultant, Redington, in order to effectively assess climate-related risks and opportunities, both within individual manager mandates and across the overall investment strategy. The Group Trustee also relies on their Investment Consultant, Redington, Actuary, Aon, and covenant adviser, Penfida, to raise any risks and/or opportunities which arise as a result of their respective scenario and covenant analysis.

Active engagement with the Group's appointed investment managers, specifically relating to climate-related risks and opportunities, is conducted by Redington and partly by the Group Trustee (during any meetings to which investment managers are invited). Throughout this engagement process, investment managers are asked to provide details of how climate-related risks and opportunities have been incorporated into the investment process within the relevant manager's investment guidelines.

Finally, active engagement with underlying companies in which the Group is invested, specifically relating to climate-related risks and opportunities, is delegated to the Group's investment managers. Key takeaways from any active engagement are reported to Redington who raise them with the Group Trustee on an ad-hoc basis and during quarterly Group Trustee Board meetings.

To ensure that any issues regarding the identification and assessment of climate-related risks are addressed and/or noted in an orderly fashion, the Group Trustee reviews its advisor, Redington on an annual basis against their agreed strategic objectives (these include ESG-related objectives, capturing climate-related risks) ensuring the current governance activities undertaken by the relevant sub-committee and specifically Redington are appropriate. Redington are responsible for monitoring the Group's investment managers to ensure they adequately identify and assess climate-related risks and opportunities, and any issues are reported to the Group Trustee.

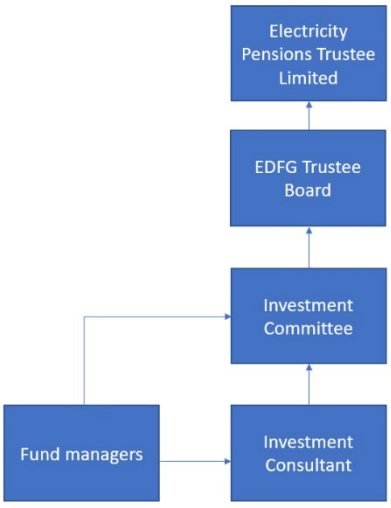
The IC reports back to the Group Trustee on a quarterly basis regarding all key investment matters, including any relevant detail on any climate-related risks and/or opportunities. The Group Trustee also receives annual reporting from Redington which contains information on the relevant metrics and targets, which have been selected for monitoring as outlined in section 4 - Metrics and Targets. The IC also reviews the Group's carbon emissions and climate risk (based on the Prudential Regulation Authority's "Slow Transition" scenario stress test and also referred to in section 2 – Strategy) on a quarterly basis. The Group Trustee also reviews these two metrics when considering investment strategy changes, in particular with new asset class/investment manager investments.

Over the past year, the IC has continued to challenge the information provided by their advisers. Specific examples include the IC challenging the data quality of their investments, noting that only a small number of investment managers were able to provide material ESG fund level detail to the Group and the other investments had to be modelled on broader asset class assumptions. Redington are continuously working with the Group's investment managers to improve this for next year's report. Separately the IC also challenged Redington to provide a more detailed attribution description of the total carbon footprint movement over the period (e.g. breaking it down into changes in overall asset allocation movements and changes at fund specific level).

Trustee knowledge and understanding of climate-related risks and opportunities

Over the period, the Group Trustee received training regarding climate change in the context of investing and fiduciary responsibility. Further training was also provided on net zero targets, climate-related metrics as well as the various climate-related risks and opportunities the Group is exposed to (details of the latter are provided in section 2 - Strategy). The Group Trustee deems the training it has received to be sufficient in providing the Group Trustee with the necessary knowledge and understanding of climate-related risks and opportunities; however, further training will be provided as appropriate. The Group Trustee also received stewardship training in Q1 2023 during which agreeing stewardship themes and aligning with the DWP guidance and best practices were the focal topics.

Structural diagram showing which groups of people or individual roles have responsibilities for governance of climate-related risks and opportunities.



2. Strategy

Overview of climate scenario analysis and climate-related considerations for the investment strategy

The Group Trustee considers climate-related risks and opportunities and their potential implications on the Group's investment and funding strategy over the short, medium and long term. The consideration of these factors is incorporated throughout the investment process, from strategic asset allocation to manager selection and portfolio monitoring.

The Group Trustee acknowledges that each of its investments is exposed to climate-related risks to varying extents, and has identified two types of risks which could impact the Group's investment and funding strategy:

- Physical risks, i.e. those that arise from both gradual changes in climatic conditions and extreme weather events; and
- Transition risks, i.e. risk of re-pricing which would occur as part of the move to a low-carbon economy.

Appropriate time horizons

The Group Trustee notes the assessment of climate-related risks and opportunities may vary depending on the time horizon in question. As such, the Group Trustee assesses climate risks and opportunities over the following time horizons which it deems appropriate in light of the Group's existing strategic objectives (please note that the Group has not differentiated between the short and medium term risks due to the difference between the period being one year and similar risks are therefore applicable to both time horizons):

Time Horizon	DB Section	Key Risks
Short term	3 years (in line with the triennial actuarial valuation cycle)	This shorter-term focus allows the Group Trustee to consider the transition risks (such as changes in corporate behaviour driven by regulatory and technological change), that the Group will predominantly be exposed to over the short and medium term. There is limited exposure to physical risk on these time frames.
Medium term	4 years (in line with the Group's target self-sufficiency funding date of 2027)	
Long term	10 years (in line with the Group's secondary de-risking objective)	The Group will be exposed to both transitional and physical risks associated with climate change, over the longer-term, with physical risk expected to intensify further into the future, which may have pronounced effects on real assets such as property. Meanwhile, deteriorating resource availability may negatively impact the covenant's position in the long-term.

The Group Trustee continues to explore investment opportunities which are both appropriate for the Group from an investment perspective and aligned with the goals of the Paris Agreement of avoiding dangerous climate change by limiting global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit it to 1.5°C. These include, for example, equity strategies which invest in companies which seek to benefit from the transition to a low-carbon economy. This was looked at by the Group Trustee in June 2022 and the Group Trustee has since appointed an ESG equity fund manager, Stewart Investors, to manage a portion of the Group's equity allocation. The Group Trustee also moved their investment in M&G Alpha Opportunities Fund to the M&G Sustainable Total Return Credit Investment Fund. The Group Trustee believes that investing in such opportunities can be neutral or even positive from a traditional risk/return perspective and is therefore consistent with its fiduciary responsibility.

The Group Trustee, on an ongoing basis, assesses the impact of the identified climate-related risks and opportunities on the Group's investment strategy and funding strategy. In order to assess the impact on

the Group's assets, the Group Trustee undertakes scenario analysis consistent with the Prudential Regulation Authority's Life Insurance Stress Tests (the PRA stress test scenarios), as recommended by the Pensions Climate Risk Industry Group (PCRIG). These stresses were chosen due to the recommendation from the Group's investment consultant, Redington, as being industry standard and used by similar UK pension schemes at the time. The stresses are designed to show what the impact on the value of the Group's assets would be in the following scenarios:

- Scenario A (Fast Transition): Abrupt transition to the Paris-aligned goal occurring over a three year time period from the date of analysis (temperature increase kept below 2 degrees Celsius relative to pre-industrial levels).
- Scenario B (Slow Transition): Orderly transition to the Paris-aligned goal occurring by 2050 (temperature increase kept below 2 degrees Celsius relative to pre-industrial levels).
- Scenario C (No Transition): A no-transition scenario occurring in 2100 (temperature increase in excess of 4 degrees Celsius relative to pre-industrial levels).

The results of these scenarios as at 31 March 2023 (on the Self Sufficiency basis) can be seen below and further details on the analysis can be seen in Part1: Appendix B.

Scenario	Impact on deficit (£m)	Impact on funding level via the investment strategy (%)
Scenario A: Abrupt transition to the Paris-aligned goal occurring three years from date of analysis (temperature increase kept below 2 degrees Celsius relative to pre-industrial levels).	-£190m	-2.8%
Scenario B: Orderly transition to the Paris-aligned goal occurring by 2050 (temperature increase kept below 2 degrees Celsius relative to pre-industrial levels).	-£210m	-3.1%
Scenario C: A no-transition scenario in 2100 (temperature increase in excess of 4 degrees Celsius relative to pre-industrial levels.	-£237m	-3.5%

The results of the scenarios provide the Group Trustee with a clear overview of how resilient the current investment strategy is with regard to various different climate change outcomes. The results above are based on the Group's current investment strategy, and as such the Group Trustee notes that as the Group continues to de-risk over time from return-seeking assets into liability driven investment (LDI), or "matching" assets, the results are expected to improve over time under the same scenario modelling.

The IC and the Group Trustee Board assess the results of these climate scenarios on the Group's investment and funding strategy and incorporate them (as well as the impact of any climate-related investment opportunities) into the investment decision-making process. For example, the PRA stress test scenarios are assessed whenever strategic asset allocation decisions or investment manager changes are made. This include the Group's decisions to invest in the Stewart Investors Worldwide Sustainability Equity fund and part of the rationale to switch the Group's M&G Alpha Opportunities Fund into M&G's

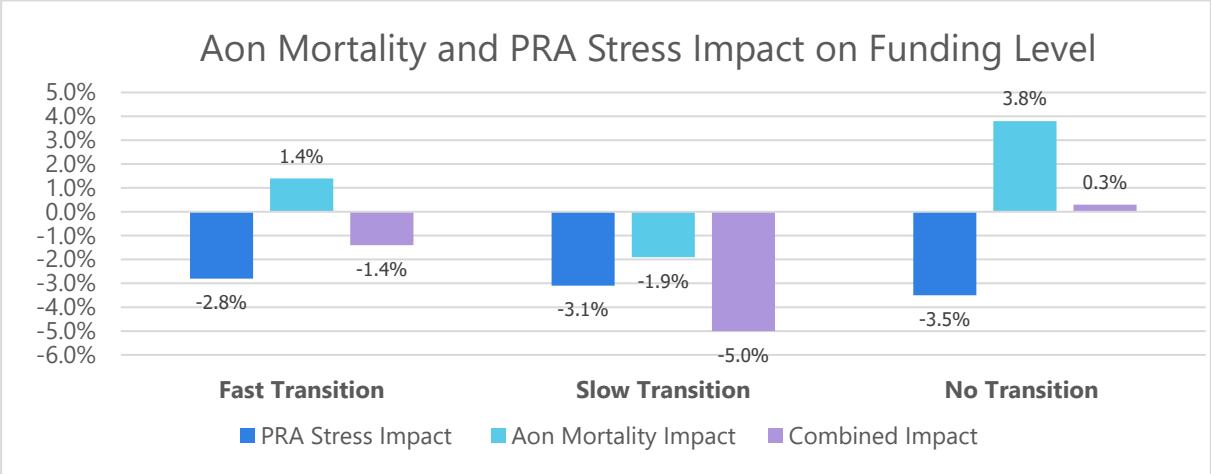
more ESG focused Sustainable Total Return Credit Investment Fund. These scenarios are also run on a quarterly basis and the results are reported in the Group's Funding and Risk Report, for the Group Trustee's monitoring.

Impact of climate scenarios on Group liabilities

The results of these climate scenarios reflect the impact to the Group's funding position as a result of changes in both the Group's assets and liabilities. The Group Trustee notes that two of the three key liability-related risks (interest rates and inflation) are suitably hedged via the Group's LDI strategy and thus the Group is not overly exposed to changes in these metrics. The third liability-related risk facing the Group is longevity / mortality risk, which the Group Trustee notes is not currently incorporated into the climate scenario analysis provided by Redington. To further understand the impact of climate change on the longevity of the Group, the Group Trustee engaged with the Group Actuary, Aon, to understand how the various climate scenarios described above will impact the longevity risk of the Group. As longevity risk is predominantly unhedged, the variable life expectancy of members will have unmitigated effects on the Group's funding level. Subsequently, Aon have conducted a scenario analysis to assess the mortality impact of climate change into the assessment of the Group's broader funding strategy. This analysis can be found in Appendix D.

Each scenario is compared to a base case scenario which represents Aon's typical best estimate of how mortality is projected to improve over time. This embeds the assumption of future longevity changes in line with the most recently available 'Continuous Mortality Investigation' (CMI) tables with a long-term rate of mortality improvement of 1.5% p.a. The three scenarios considered by Aon are in line with the PRA scenarios used by Redington and are: (1) No Transition, (2) Disorderly (Fast) Transition and (3) Orderly (Slow) Transition.

The chart below depicts the expected funding level impact under each of the three climate scenarios, expressed as the percentage point difference between the Group's funding level and the stressed funding level. The stressed funding level is computed by combining the climate stress from each PRA scenario on both assets and liabilities, with the liability stress due to longevity, based on Aon's analysis of ultimate mortality impacts.



**Figures are based on the impact on male life expectancy to standardise the population and allow for a fair comparison over time, though each scenario impacts females to the same extent.*

***The figures are appropriate for the overall profile of the Group and the discount rate being used (Gilts + 0.50%).*

Despite the expected funding level impact due to the PRA scenarios being most severe under the "No Transition" scenario, the graph above indicates that the combined funding level impact, accounting for both PRA and mortality stress, is actually positive under this scenario. This is driven by the liabilities decreasing in excess of assets, as life expectancy declines due to living in a more carbon intensive world. The Group Trustee notes that this is not a desired outcome as lower longevity risk as a result of decreased life expectancy is clearly not in the interest of members. The "Slow Transition" scenario has the most severe impact on funding level, driven by the forecasted improvement in mortality relative to the base case scenario, which compounds the negative funding level impact from the PRA scenarios.

The degree of expected funding level impact due to mortality, particularly in the context of climate, is highly sensitive to the assumptions built into each of the scenarios. In practice, there are a multitude of unconstrained climate-related risk factors which can affect mortality to varying degrees, materialising predominantly unhedged longevity risk exposure for the Group. While the Group Trustee has determined that its current strategy remains appropriate and robust against the relevant climate scenarios, the Group Trustee will continue to monitor mortality-related risks relative to the Group's asset allocation.

Impact of climate scenarios on Group's sponsoring employers and the support provided by EDF SA

Similar to the work conducted for the previous iteration of the TCFD report, the Group Trustee has again engaged with the covenant advisor, Penfida, in order to understand how the Group's sponsoring employers and the formal support provided by EDF SA, which together support the Group (known as its "covenant"), would be impacted by various climate scenarios.

The impact of the chosen climate scenario is focused on the EDF group of companies given the reliance that the Group places on the covenant support from EDF SA and the extent of public disclosure. Penfida engaged with EDF group management in the context of the actuarial valuation as at 31 March 2022 to discuss further the impact of climate change on the sponsoring employers including from a quantitative perspective. Given the level of information disclosure, no quantitative outputs have been shared. The qualitative assessment provided by Penfida is as follows:

Given EDF's business, it is at the forefront of facilitating and managing the transition to a lower carbon economy; indeed its "raison d'être" is about managing the risks and opportunities borne from climate change. EDF continues to be rated in line or above its peers by a number of ESG ratings providers. Penfida note that the credit rating agencies both rate EDF as being moderately negative from an overall ESG perspective; however, there is limited impact on their assessment of EDF's creditworthiness and its Moody's ESG credit impact score is broadly in line with peers. Whilst physical risks from climate change (such as extreme weather events) represent only downside risk to the business, EDF believes there are a number of opportunities from which it can benefit in terms of the transition to a low carbon economy, such as the introduction of alternative sources of electricity technology, e.g. renewables. Given that a "no transition" scenario leads to the highest level of physical risk, this would be the most negative scenario for EDF and by extension for the Group in terms of covenant strength. EDF is seeking to mitigate the potential impacts of climate change related risks, both transitional and physical, through the adoption of globally recognised initiatives and periodic reviews of climate change adaptation plans. In addition, EDF is aiming to reach carbon neutrality by 2050 and has set intermediate goals for 2023 and 2030 on its path to carbon neutrality.

As part of its covenant monitoring programme, Penfida will review EDF's ESG ratings and how they develop, both in isolation and against its peers, as well as key regulatory / governmental changes which may impact the strength of the covenant and progress towards, and evolution of, EDF's targets. (Source Penfida, May 2023).

Summary of the impact of climate scenarios on Group's investment and funding strategy

In light of the scenario analysis conducted on the Group's assets, the initial assessment of the impact on liabilities and the qualitative assessment of the impact on the covenant, the Group Trustee believes the Group's funding strategy is resilient to the various risks presented by climate change. EDF, whilst exposed to the risks of climate change, is well positioned to take advantage of the opportunities that climate change will bring. The Group's investment strategy is well diversified across a number of different risk factors, and the initial estimate of the impact of climate change on the Group's membership profile, indicates little/no impact to funding, although the Group Trustee notes the range of outcomes for the Group does vary when looking at alternative more extreme scenarios. The Group Trustee will continue to monitor the Group's exposure to climate-related risks via climate scenario analysis.

3. Risk Management

Processes to identify, assess and manage climate-related risks

As set out in section 2 - Strategy, the Group Trustee is exposed to climate-related risks in the form of transition and physical risk. The Group Trustee considers the impact of these climate-related risks on all of the assets in which it invests by conducting and reviewing the results of climate-related stress tests, within the Group's ESG report, on an annual basis. The Group Trustee uses the ESG report to review the Group's investment managers over the year, in order to identify which funds the Group Trustee should engage with, either in terms of where the largest climate risks in the portfolio arise from and/or if any of the investment managers have had a material increase in carbon footprint over the year. It was noted in the recent review of the ESG report in 2023, that many of the Group's investment managers did not have specific fund level ESG data feeding through and there is an action to continue to engage with these investment managers to provide the necessary data for the next report.

The Group Trustee also receives additional climate-related reporting from Redington on a quarterly basis which is included in the Funding and Risk Report. This report contains relevant climate metrics as set out under the DWP's adoption of the recommendations of the TCFD (and as further discussed under section 4 - Metrics and Targets). The Group Trustee has also incorporated climate risk as an explicit risk within its risk register. This allows the Group Trustee to better identify and manage the climate-related risks which are relevant to the Group on an ongoing basis.

For all appointed investment managers, evaluation of ESG risk management, which includes climate-related risks, is an explicit part of both the selection process and continued due diligence or monitoring that the Group Trustee undertakes. The Group Trustee also relies on the manager research capabilities of Redington in order to effectively assess climate-related risks and opportunities.

Trustee actions to manage climate-related risks using overall risk management framework

ESG-related factors were considered as part of a strategy review which was conducted following the consolidation of the Group in Q4 2021. These factors included the level of ESG integration in each fund, carbon emissions and the resilience of the strategy to climate scenario analysis. On this basis, the Group Trustee decided to schedule further work in H2 2022 to look into sustainable investment strategies, including climate opportunities.

As a consequence of the above work and as previously mentioned, the Group Trustee appointed an ESG equity fund manager, Stewart Investors, to manage a portion of the Group's equity allocation. The Group Trustee also moved their investment in M&G Alpha Opportunities Fund to the M&G Sustainable Total Return Credit Investment Fund, in a shift to investing in more climate-aware funds.

As per the engagement policy set out in Part 1: Appendix A, the Group Trustee believes that engagement with the Group's investment managers is one of the main ways in which the Group Trustee is able to manage climate-related risks and opportunities. A majority of this engagement is carried out on behalf of the Group by Redington. The Group Trustee will consider further enhancement of its engagement strategy in the future to further expand its influence as an asset owner and drive positive outcomes for its members in relation to the management of climate-related risks and opportunities. As previously mentioned, the Group Trustee has already taken steps to enhance its engagement policy in the form of stewardship and engagement training provided by Redington in Q1 2023.

4. Metrics and Targets

Metrics used to assess climate-related risks and opportunities faced by the Group

With regards to quantitative metrics, the Group Trustee – on an annual basis – monitors and reports:

- Metric 1: Total greenhouse gas emissions of the Group's assets (absolute emissions metric);
- Metric 2: Carbon footprint – i.e. total carbon dioxide emissions for the portfolio normalised by the enterprise value (including cash) of that portfolio (emissions intensity metric);
- Metric 3: The result of Scenario B of the PRA stress test scenarios (additional climate change metric) – this has been chosen based on the basis that it is a useful metric for assessing the Group's exposure to climate risk and can be used in risk management decisions – further details of the calculations surrounding the PRA stress test scenarios and their background can be seen in Part 1: Appendix B.
- Metric 4: A newly adopted portfolio alignment metric – alignment assessments from the Science Based Targets initiative (SBTi), which was approved by the Group Trustee in December 2022.

At the December 2022 Group Trustee Board meeting, the Group Trustee agreed to adopt assessments provided by the SBTi as the Group's portfolio alignment metric, which captures a company or issuer's progress against a self-developed decarbonisation target using science-based methodology. The target can be aimed at multiple time horizons, with each company being scored with a binary yes or no assessment on the following target categorisations: "SBTi Approved 1.5 C", "SBTi Approved Well Below 2 C" or "SBTi Approved 2 C". Each of the categorisations all denote the implied global temperature increases that coincide with the decarbonisation target. Further information on this metric is set out in the "Portfolio Alignment" section of Appendix C.

The Group Trustee receives these metrics on at least an annual basis as part of an ESG dashboard provided by Redington. The Group Trustee will periodically review its selection of metrics to ensure they remain appropriate for the Group. These were last reviewed in December 2022 when the Group Trustee decided to also start monitoring the SBTi metric. The Group Trustee has also gone through the process of setting explicit targets for the Group which are aligned with the Group Trustee's climate-related beliefs and are complementary to the Group's wider objectives.

Group Trustee's target(s)

In particular, the Group Trustee has agreed to align the Group's investment strategy with the goals of the Paris Agreement, i.e. to aim to reduce total greenhouse gas emissions of the Group's assets to net zero by 2050. Given this is a long-term target, the Group Trustee has also set an appropriate interim target of a 50% reduction of carbon footprint by 2030 compared to the baseline as at 30 September 2021. The Group's target was set on the total portfolio carbon footprint (LDI assumed zero emissions). The starting point was 126 tC02e/£m as at 30 September 2021, the 31 March 2023 carbon footprint of the portfolio is 104 tC02e/£m, or 219 tC02e/£m if we exclude LDI assets as per the ESG report below, which is a 17.5% reduction since the baseline year.

The Group Trustee has considered the feasibility of such a target by considering the anticipated changes in the Group's asset allocation over time, and has conducted several discussions on ways to further reduce the Group's carbon footprint in order to meet this goal. The Group Trustee notes that as the Group continues to de-risk over time from return-seeking assets into LDI or "matching" assets, the carbon footprint of the Group is also expected to reduce due to gilts being expected to generate lower levels of emissions than return-seeking assets over the longer term.

In order to ensure that climate risk does not become an overly large proportion of the Group's total risk, the Group Trustee has also set a climate risk budget based on its third climate metric (i.e. the results of the "Slow Transition PRA stress tests"). In particular, the Group Trustee has determined that this metric should not exceed 50% of the Group's total risk budget. The Group Trustee notes that any changes to the Group's investment strategy should, where possible, aim to not increase the expected loss under a Slow Transition.

These targets are embedded in the governance, strategy and risk management processes via their inclusion in the quarterly reporting provided to the Group Trustee by Redington. On an annual basis, the Group Trustee will measure performance against this target and furthermore determine whether this should be retained or replaced.

Trustee assessment of metrics and targets as at 31 March 2023

The full results of the climate metrics analysis as at 31 March 2023 are shown in Part 1: Appendix C. The Group Trustee notes that the Group's total carbon footprint is 219 tCO2e / £m invested, and the total estimated Group carbon emissions is 713,836 tCO2e. The total estimated carbon emissions has proportionally reduced from the 1,151,105 tCO2e last year, as a significantly higher proportion of assets have been invested in the LDI portfolio, which has been excluded in the analysis due to current lack of market consensus. The Group's total carbon footprint of 219 tCO2e/ £m invested is slightly higher than the reported 206 tCO2e / £m invested from the previous year. This is a result of having a greater proportion of assets invested in the Group's illiquid assets (specifically the Partners Group mandate) as the Group could not rebalance as quickly out of these assets following the gilt crisis in 2022.

There is emerging industry consensus regarding the carbon emissions of sovereign bond assets and the Group Trustee has engaged with the Group's LDI manager, LGIM, to understand the emissions attributable to the Group's LDI portfolio. The carbon emissions intensity of the LDI portfolio are 57 (tonnes CO2e per £1m invested). This figure is based on scope 1&2 only and the coverage is of 93.6% of the assets held within the portfolio. The Group Trustee reports the emissions from return-seeking assets separately from sovereign assets, rather than at an aggregated level recognising that there is likely to be a degree of double counting between the two.

With the exception of two mandates (Stewart Investors Worldwide Sustainability Fund and M&G Sustainable Total Return Credit Investment Fund which had 96.9% and 74.7% coverage respectively), the metrics have been modelled at an asset class level by Redington and reviewed by the Group Trustee because data coverage for those funds provided by the investment manager is below 50%. Data coverage for these funds are below 50% due to a combination of reasons with some of them due to the underlying securities the funds invested in are unable to provide the required ESG data at this time, or the investment manager is still developing the process to engage and retrieve this data from the underlying securities, or ESG data is unavailable due to the underlying security (e.g. for derivatives). The expectation is that the output will evolve over time as data availability is likely to improve and increasing public disclosures should increase the speed at which the data becomes available. As and when new data becomes available, the Group Trustee will review the targets which have been set to ensure they remain feasible in light of this new information. The Group Trustee is also engaging with their investment managers to provide more detailed ESG data on their investments, in particular with Partners Group and CBRE, who are expecting to provide more granular data for the Group's next TCFD report. The Group will also monitor whether data quality is improving over time.

This analysis contains estimates of the Group's scope 3 greenhouse gas emissions, i.e. the "financed emissions" associated with the Group's investments. The Group Trustee acknowledges the impact its own actions may have and does consider them, but the Group's scope 1 and scope 2 emissions (e.g. the use of fuel and electricity in office buildings) are nominal in comparison to scope 3 emissions (i.e. the emissions arising from investments). Definitions of scope 1, 2 and 3 emissions can be seen in the glossary of terms in Part 1: Appendix C.

To date the Group Trustee has used the results to identify the funds with higher emissions. As previously mentioned, this prompted the Group Trustee to consider alternative low-carbon funds. The Group Trustee anticipates using the climate-related risks which are raised through the above mentioned metrics as an opportunity to engage with investment managers who have materially higher carbon intensity levels. The Group Trustee will continue to explore low-carbon alternative investment options and update investment guidelines for managers where the Group Trustee has discretion to make such changes.

Note: All analysis is provided by the Group's DB Investment Consultant, Redington Ltd (Redington), and the data in the report is sourced from MSCI ©. Please refer to the data disclaimer in Part 1: Appendix C.

Part 1: Appendix A - Monitoring Climate-Related Risks and Opportunities Policy

Monitoring climate-related risks and opportunities

- Whilst the Group Trustee believes that climate change is likely to be a financial risk affecting all of the Group's investments to some degree, the Group Trustee understands its limitations of governance time and resources available to them and so ensures monitoring of certain climate-related risks are appropriately delegated to the Group's investment consultant and/or investment managers where needed.
- The Group Trustee integrates the monitoring of climate risk metrics into its risk management framework and considers these when making investment decisions.
- The Group Trustee is open to exploiting the investment opportunities that climate change may bring.
- The Group Trustee does not believe that it can rely solely on markets to price in climate-related risks quickly or accurately enough. The risks arising from climate change should therefore also be actively managed by investment managers where this is possible and appropriate.
- The Group Trustee believes that climate change risk needs to be considered alongside and balanced against the other relevant investment risks and considerations when evaluating investments. The Group Trustee therefore acknowledges that it may not always be able to minimise climate-related risk if doing so would be to the disproportionate detriment of wider strategic objectives.
- The Group Trustee will seek to invest in a way that is aligned with the goals of the Paris agreement.

Engagement

- The Group Trustee believes that engagement (including the exercise of voting rights) is an effective means of helping to manage the Group's climate-related risks. Engagement with underlying companies (as well as other relevant organisations) is carried out primarily by investment managers on behalf of the Group Trustee.
- The Group Trustee will consider disinvesting from businesses or investment managers who are inadequately managing their climate-related risks if attempts to engage with these parties to address this are not successful.
- The Group Trustee will work collaboratively with investment managers and relevant industry stakeholders to set Group-wide objectives for the engagement activities that are carried out on the Group Trustee's behalf.
- The current approach being taken by the Group in relation to engagement is disclosed under section 1 - Governance of the DB Section of this report, and further developments will continue be disclosed in the future TCFD-aligned reports.

TCFD: Climate risk management and governance

- The processes for identifying, assessing and managing climate-related risks are in line with the overall Risk Management Framework. The ultimate responsibility for identifying, assessing and monitoring climate-related risks and opportunities sits with the Group Trustee; however, the Group Trustee has delegated the day-to-day responsibilities to the IC.

- In order to effectively carry out this responsibility, the IC monitors the full ESG report including fund-by-fund data provided to it on an annual basis by its DB Investment Consultant. This contains relevant climate metrics as set out under the DWP's adoption of the recommendations of the TCFD. In addition to the full report, the IC also monitors the PRA climate stress tests received on a quarterly basis in the Group's risk report, which is prepared by its DB Investment Consultant. The IC also relies on the manager research capabilities of its DB Investment Consultant in order to effectively assess climate-related risks and opportunities within individual fund manager mandates. Finally, active engagement with companies in which the Group is invested, specifically relating to climate-related risks and opportunities, is delegated to the Group's investment managers. Key takeaways from this day-to-day monitoring are reported back to the Group Trustee periodically and examples are highlighted within the Group's annual implementation statement.

TCFD: Strategy

- Climate-related risks and opportunities are assessed by the Group Trustee in the setting of the Group's investment and funding strategy. For example, the results of various climate scenarios are incorporated when setting the investment strategy, and the impact of various climate scenarios on the liabilities and sponsor strength are also considered with the help of the Group's advisors. The results of these climate scenarios are aligned where possible to ensure a consistent approach is taken across the Group's entire strategy.

Part 1: Appendix B - Scenario Analysis

As part of its 2020 biennial stress tests, the Bank of England's Prudential Regulation Authority (PRA) conducted an exploratory exercise to test the impact of future climate change scenarios on the assets and liabilities of (re)insurers, using predictions by the Intergovernmental Panel on Climate Change (IPCC) and academic literature as the basis for its modelling assumptions.

Using the same methodology, Redington have constructed similar tests that allow the Group Trustee to examine the impact on the funding position, via the effect on asset values, of the Group under three scenarios.

The magnitude of each of the physical and transition shocks varies across industries under each scenario, meaning some assets may fare better or worse under one scenario compared to another. For Scenario A (fast transition): the downside comes almost entirely from transition risk. For Scenario B (slow transition): the downside comes from a mix of transition risk and physical risk. For Scenario C (no transition): the risk is entirely physical risk. In terms of the assumptions made under these scenarios, the PRA recognised that feedback loops between climatic shocks and structural economic change need to be incorporated when assessing the financial impacts on businesses of physical and transition risk under each emissions scenario. However, due to existing modelling and data constraints, this is a complexity that is purposely excluded from the modelling.

There is also an acceptance that the timing and sequence of financial impacts will be complex, as behavioural changes could result in physical risks preceding transition risks and vice versa. For the purpose of simplicity, where an asset is subject to both physical and transition risk, the shocks are applied consecutively, with the physical shock applied second.

Modelling Assumptions:

- The climate stress tests are based on PRA's 2019 climate scenarios. These scenarios have been used to construct climate stress tests for a series of equity building blocks using MSCI and ICE index compositions as at November 2021, which have been extrapolated to Redington's universe of asset classes.
- Investment grade credit and high yield credit are modelled using an equity-beta approach, with betas of 15% and 35% applied respectively.
- The Group's assets have been mapped to Redington's universe of generic asset classes, using a similar approach as when they are assessed for investment risk/return.
- The fast, slow and no transition PRA climate stresses have time horizons of 3 years, 30 years and 80 years respectively.
- Interest rate stresses have been proxied using ICE BofA US Emerging Markets External Sovereign Index (DGOV). Inflation stresses have not been applied.

Key Limitations:

- Stress tests are based on scenarios constructed by the PRA in 2019 and therefore present a world view as at that date and have not been updated since.
- Stress tests are based on a strategic mapping of the Group's assets to Redington's generic asset class universe and do not consider the individual composition of the Group's funds.

- Redington proxies are based on index composition as at Nov 2021 and do not allow for changes since. We ask users of these stresses to bear this in mind when reviewing stresses of assets with more volatile sector compositions.
- Credit stresses are calculated using a modelled equity-beta approach that was approximated as at November 2021.

Part 1: Appendix C - Carbon footprint analysis and Portfolio Alignment

- Climate reporting as at 31 March 2023 can be found on pages 20 to 23. As per the tables on the following pages, this reporting includes the chosen first and second metric as described under section 4 - Metrics and Targets in the DB Section of this report. The third metric (the result of the "Slow Transition PRA stress test"), is set out in section 2 - Strategy and described in Part 1: Appendix B.
- Where possible and where there is reasonable data coverage, the Group Trustee monitors 'line-by-line' emissions reporting for funds. These tend to be more generic, long-only asset classes such as listed equity and corporate credit. However, for funds with less than 50% coverage and illiquid assets, the Group Trustee monitors 'asset class level' carbon estimates in the absence of reliable, reported line-by-line emissions data from MSCI. The Group Trustee notes using asset class modelling of emissions for assets where this data is not available enables a more holistic view of the Group's total portfolio emissions, albeit recognising that the modelled data is not perfect.
- The asset class modelling of emissions has been provided by Redington and is based on asset class 'building blocks'. These are either calculated directly using a given index's underlying holdings emissions (such as using MSCI ACWI as a proxy for a broad equity fund) or in some cases these indices are used and extrapolated to other asset classes based on given assumptions (such as using the emissions of infrastructure firms within an index to proxy an infrastructure fund).
- The Group Trustee recognises that there is some degree of double counting in including scope 3 emissions. For this reason, scope 3 emissions figures have been adjusted for double counting by applying a de-duplication multiplier of 0.22 to all portfolio companies' scope 3 emissions. This is the discount factor used by the Group's ESG data provider and it is based on the relationship between the total scope 1 and scope 3 emissions of a company. In this way the discount factor is designed to reduce the portfolio's aggregated scope 1, 2 and 3 emissions down to a level more closely reflecting the real-world footprint. The climate metrics reporting the Group Trustee receives from Redington reports "scope 1 & 2" and "scope 3" data separately before aggregating, in an effort to improve transparency.

Portfolio Alignment

As noted in section 4 – Metrics and Targets, the Group Trustee has agreed to adopt the SBTi as its chosen fourth metric, which examines whether a voluntarily disclosed company decarbonization target is aligned with a relevant science-based pathway.

As part of SBTi, a company or issuer will sign a commitment to self-develop a single or multiple pathways to reduce GHG emissions, with 24 months to develop this pathway, submit it for SBTi validation and publish the approved target. The Company/Issuer's chosen decarbonisation target can be aimed at one or all of; the short term, long term or Net Zero, with each company being scored with a binary yes or no assessment on the following target categorisations: "SBTi Approved 1.5 C", "SBTi Approved Well Below 2 C" or "SBTi Approved 2 C", each of which signify the implied global temperature increases that coincide with the decarbonisation target. Should a company/issuer's decarbonisation pathway not comply with either of the Paris-aligned targets, it will be assigned a 'Not Committed' rating. On the contrary, should a company/issuer's decarbonisation pathway comply with at least one of the categories, a 100% SBTI rating score would be allocated to that holding.

Using line-by-line data, Redington can calculate the proportion of assets invested within each fund the Group is invested in, that correspond to each SBTi score classification, ignoring negative allocations. Where line-by-line data is not available, investment managers can also provide these proportions if they have access to the data. A scheme-level score is calculated as the value weighted average of the fund level scores (i.e. for an example scheme XYZ, that is 50% invested in Fund X with an SBTi score of 20% and 50% invested in Fund Y with an SBTi score of 40%, the

scheme-level aggregate SBTi score (30%) is calculated through a weighted-average of the fund's weight within the portfolio and SBTi score).

The results of this metric as at 31 March 2023 (the first quarter it was calculated for the Group) is set out at the bottom of the appendix. The Group Trustee will continue to monitor this each quarter.

Fund	Fund Value (£m)	MSCI Climate Metrics Coverage %	Absolute Carbon Emissions (tCO2e)						Carbon Footprint (tCO2e / EVIC £m)					
			Current – Scope:			Previous – Scope:			Current – Scope:			Previous – Scope:		
			1+2	3	Total	1+2	3	Total	1+2	3	Total	1+2	3	Total
Liquid Markets (Equities)														
LGIM World Equity Index (MSCI) Fund - GBP Currency Hedged	114.4	95.6%	6,858	46,826	17,160	48,447	255,287	104,610	59.9	409.3	150.0	61.1	322.0	132.0
Stewart Investors Worldwide Sustainability Fund	59.5	96.9%	466	7,955	2,217	-	-	-	7.8	133.7	37.3	-	-	-
Liquid Markets (Multi-Asset)														
Man AHL Target Risk Fund	207.0	-	4,548	111,951	29,177	31,426	191,091	73,466	22.0	540.8	140.9	90.2	548.2	210.8
Ruffer Absolute Return Fund (Segregated Account)	169.5	-	8,409	47,956	18,959	43,115	602,726	175,715	49.6	282.9	111.8	100.3	1,401.8	408.7
Amundi Multi-Strategy Growth Fund	174.8	-	4,246	26,682	10,116	51,621	187,440	92,858	24.3	152.7	57.9	125.4	455.4	225.6
Liquid and Semi-Liquid Credit														
Beach Point SCF X Fund	64.1	-	10,136	41,488	19,264	26,558	120,806	53,135	158.1	647.0	300.4	179.0	814.3	358.1
BlueBay Leveraged Finance Total Return Fund	229.5	-	34,595	140,513	65,508	41,920	173,404	80,069	150.7	612.1	285.4	179.3	741.6	342.4
CQS Credit Multi Asset Fund	330.1	-	49,744	202,048	94,195	84,074	347,775	160,585	150.7	612.1	285.4	179.3	741.6	342.4
M&G Sustainable Total Return Credit Investment Fund	158.7	74.7%	10,123	67,651	25,006	-	-	-	63.8	426.4	157.6	-	-	-
PIMCO Low Duration Opportunities Fund	69.9	-	4,491	24,458	9,872	25,924	137,965	56,276	64.3	350.1	141.3	83.6	444.9	181.5
Schroders Alternative Securitised Income Fund	175.0	-	12,011	71,501	27,742	-	-	-	68.6	408.5	158.5	-	-	-
Illiquid Credit														
GSAM Broad Street Loan Partners IV (Levered) Fund	25.1	-	12,971	53,035	24,639	12,165	51,992	23,603	516.0	2,110.0	980.2	593.1	2,534.9	1,150.8
GSAM Broad Street Loan Partners IV (Unlevered) Fund	21.2	-	3,278	13,403	6,227	3,425	14,636	6,645	154.8	633.0	294.1	177.9	760.5	345.2
M&G Illiquid Credit Opportunities Fund II	61.3	-	18,018	73,747	34,242	20,555	93,499	41,125	260.1	1,064.6	494.3	294.5	1,339.8	589.3
M&G Illiquid Credit Opportunities Fund V	64.7	-	16,816	68,829	31,959	19,287	87,733	38,589	260.1	1,064.6	494.3	294.5	1,339.8	589.3

Fund	Fund Value (£m)	MSCI Climate Metrics Coverage %	Absolute Carbon Emissions (tCO2e)						Carbon Footprint (tCO2e / EVIC £m)					
			Current – Scope:			Previous – Scope:			Current – Scope:			Previous – Scope:		
			1+2	3	Total	1+2	3	Total	1+2	3	Total	1+2	3	Total
M&G Real Estate Debt Fund VI	20.6	-	6,720	34,292	14,264	7,072	36,580	15,120	101.3	516.9	215.0	116.0	600.0	248.0
M&G Senior Commercial Mortgage Loan Fund I	8.8	-	60	442	157	255	876	448	6.8	50.2	17.9	13.1	44.9	22.9
M&G Senior Commercial Mortgage Loan Fund II	5.0	-	34	249	89	67	228	117	6.8	50.2	17.9	13.1	44.9	22.9
Standard Life Long Lease Property Series II Fund	298.2	-	2,036	14,956	5,327	4,987	17,128	8,755	6.8	50.2	17.9	13.1	44.9	22.9
Illiquid Markets														
CBRE Satellite Portfolio	138.8	-	975	7,164	2,551	2,260	7,762	3,968	6.8	50.2	17.9	13.1	44.9	22.9
CBRE UK Property PAIF	124.3	-	849	6,236	2,221	1,960	6,730	3,440	6.8	50.2	17.9	13.1	44.9	22.9
M&G UK Residential Property Fund	21.7	-	148	1,090	388	561	1,927	985	6.8	50.2	17.9	13.1	44.9	22.9
Partners Group Fund	720.4	-	120,285	567,049	245,036	111,931	563,176	235,830	167.0	787.1	340.1	159.0	800.0	335.0
TOTAL PORTFOLIO	**3,262.6**		**338,952**	**1,704,018**	**713,836**	**-**	**-**	**1,151,105**	**103**	**522**	**219**	**96**	**504**	**206**

Please note the total carbon footprint numbers for the total portfolio are reported excluding the LDI portfolio assets.

Fund	Fund Value (£m)	Science Based Targets initiative Rating		PRA Slow Climate Stress	
		Current	Previous	Current	Previous
Liquid Markets (Equities)					
LGIM World Equity Index (MSCI) Fund - GBP Currency Hedged	114.4	39.1%	-	-6.9%	-
Stewart Investors Worldwide Sustainability Fund	59.5	27.4%	-	-4.5%	-
Liquid Markets (Multi-Asset)					
Man AHL Target Risk Fund	207.0	-	-	-11.5%	-
Ruffer Absolute Return Fund (Segregated Account)	169.5	3.3%	-	-4.3%	-
Amundi Multi-Strategy Growth Fund	174.8	13.7%	-	-2.1%	-
Liquid and Semi-Liquid Credit					
Beach Point SCF X Fund	64.1	-	-	-4.8%	-
BlueBay Leveraged Finance Total Return Fund	229.5	5.5%	-	-4.5%	-
CQS Credit Multi Asset Fund	330.1	5.1%	-	-4.5%	-
M&G Sustainable Total Return Credit Investment Fund	158.7	17.7%	-	-1.8%	-
PIMCO Low Duration Opportunities Fund	69.9	3.0%	-	-1.4%	-
Schroders Alternative Securitised Income Fund	175.0	-	-	-1.3%	-
Illiquid Credit					
GSAM Broad Street Loan Partners IV (Levered) Fund	25.1	-	-	-15.1%	-
GSAM Broad Street Loan Partners IV (Unlevered) Fund	21.2	-	-	-4.5%	-
M&G Illiquid Credit Opportunities Fund II	61.3	-	-	-7.7%	-
M&G Illiquid Credit Opportunities Fund V	64.7	-	-	-7.7%	-
M&G Real Estate Debt Fund VI	20.6	-	-	-4.4%	-
M&G Senior Commercial Mortgage Loan Fund I	8.8	-	-	-0.9%	-
M&G Senior Commercial Mortgage Loan Fund II	5.0	-	-	-0.9%	-
Standard Life Long Lease Property Series II Fund	298.2	-	-	-8.0%	-
Illiquid Markets					

Fund	Fund Value (£m)	Science Based Targets initiative Rating		PRA Slow Climate Stress	
		Current	Previous	Current	Previous
CBRE Satellite Portfolio	138.8	-	-	-8.0%	-
CBRE UK Property PAIF	124.3	-	-	-8.0%	-
M&G UK Residential Property Fund	21.7	-	-	-8.0%	-
Partners Group Fund	720.4	-	-	-4.7%	-
TOTAL PORTFOLIO	**3,262.6**	**4.5%**	**-**	**-**	**-**

All "Current Total Portfolio" figures in this table are weighted averages with the exception of "Fund Value" and "ITR" where it is presented.
"Previous" figures show climate metrics from 12 months prior to "Current" figures. Fund-level "Previous" figures may not sum to the "Previous Total Portfolio" figures because the "Total Portfolio" values may contain funds that have now been divested from and not reported in this table.
Where presented, "Science Based Target initiative" or "TPI" scores are all based on lookthrough data where it is available and never proxied. "ITR" is only proxied where there is insufficient data.
ESG and MSCI Carbon Metrics meet the current minimum UK DWP's TCFD-aligned "Metrics and Targets" regulations. However, regulations are subject to change. Redington monitors developments closely.

Emission metrics are calculated for return seeking assets only.
UNPRI delays with their new reporting system mean 2021 new ratings have not yet been released.

Appendix D. Aon output of Impact of Climate Change on Mortality

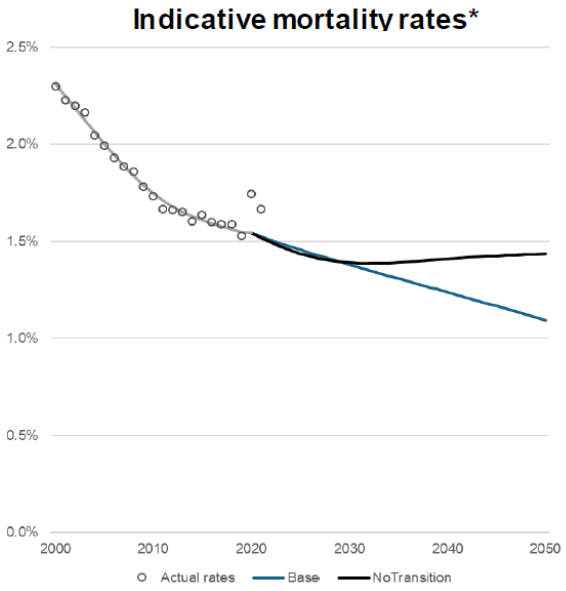
Scenario 1 – No Transition

S01. No Transition

Limited consideration is given to environmental challenges. Governments and businesses rely on the (false) hope that market forces will provide engineering solutions to mitigate and adapt to climate change naturally, without worldwide government intervention. In the short-term more money may be spent on health services, perhaps reducing mortality slightly.

There is growing awareness of a changing environment and the damaging effects a lack of action is having, over the intermediate term. There is a higher incidence of damaging storms, water shortages, higher pollution levels and reduced agricultural yields (leading to higher food prices). Markets become more volatile and climate change begins to have a growing drag on economic growth and asset returns. In such an environment, there may be no long-term future improvements in mortality (consistent with what we saw between 2014 and 2018).

In terms of the direct climate impacts, fewer deaths from warmer winters may more than offset any impact of heatwaves but the impact is likely to be marginal.



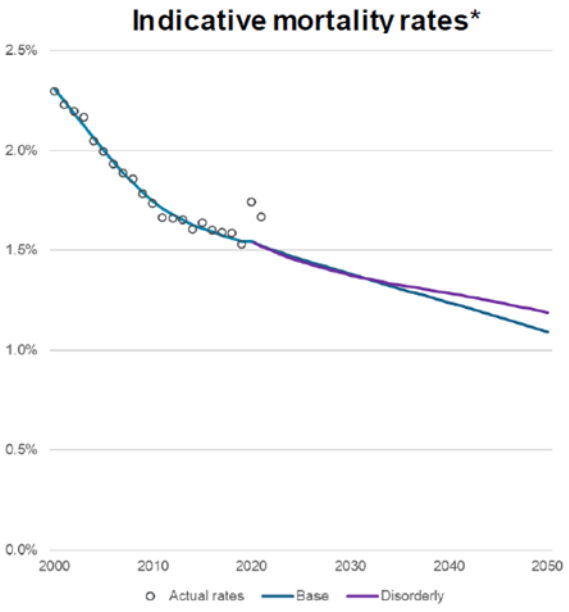
*Pension scheme (SAPS S3PMA) mortality
Standardised using European Standard Population 2013
Males aged 50-90

Scenario 2 – Fast (Disorderly) Transition

S02. Disorderly Transition

Disruption to health and social care services, and damage to related infrastructure, due to extreme weather (potentially coinciding with increased demand) may increase mortality.

Significant falls in GDP start from around year 10. Prolonged recession leads to issues with the provision of healthcare and ultimately to falls in life expectancy, with overall improvements at 1% p.a. over the long term.



*Pension scheme (SAPS S3PMA) mortality
Standardised using European Standard Population 2013
Males aged 50-90

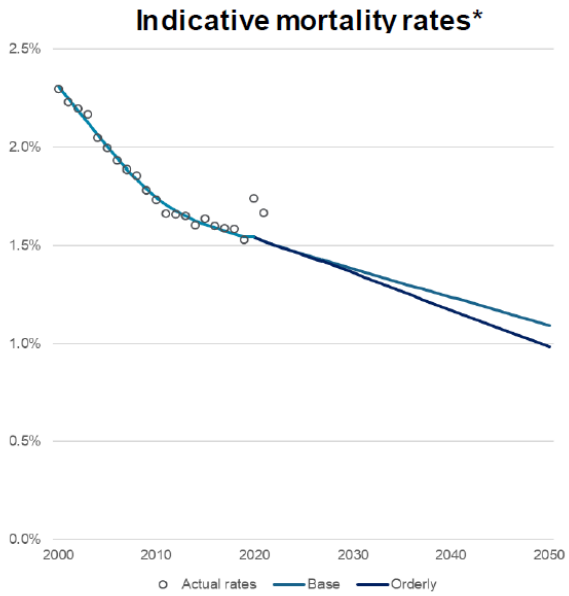
Scenario 3 – Slow (Orderly) Transition

S03. Orderly Transition

Over the first three years, the global economy experiences a period of turmoil and lower growth as the economy arduously divests away from fossil fuels. Global growth and market returns remain strong relative to the base case in the long-term, supported by a brighter sustainable outlook and the positive spill-over effects from green policy adoption.

Disruption to health and social care services, and damage to related infrastructure, due to extreme weather (potentially coinciding with increased demand) may increase mortality. However, the disruption is likely to be short-lived.

In the longer-term, better air quality and improved health conditions may lead to higher longevity: overall around a 0.5 year improvement in life expectancy for the average 60-year-old.



**Pension scheme (SAPS S3PMA) mortality*
Standardised using European Standard Population 2013
Males aged 50-90

Redington scenario	Aon Scenario	Aon assumed Long-term improvement in mortality	Ultimate liability impact (age 60) from mortality
N/A	Base case	1.5% p.a.	-
No Transition	No Transition	0.0% p.a.	−4%
Fast Transition	Disorderly	1.0% p.a.	-1.5%
Slow Transition	Orderly	2.0% p.a.	+2%

Liability Impact of Each Scenario

Modelling Assumptions:

- **Data used:** deaths and populations for years 1960-2020 as published by ONS and used by CMI in the industry standard CMI mortality projections model CMI_2020. 2021 data added to historic data points (but CMI model not updated to CMI_2021 at this stage.)
- For charts, mortality standardised using the European Standard Population 2013 for ages 50-90 as set out in this paper: Revision of the European Standard Population -Report of Eurostat's task force -2013 edition -Products Manuals and Guidelines -Eurostat (europa.eu)
- **Model:** industry-standard mortality projections model CMI_2020 with varying parameters to reflect short- and long-term impacts of different scenarios on mortality. The key parameters used were the Initial Addition (A) parameter which increases or decreases improvements in the near-term, and the long-term rate parameter (LTR) which increases or decreases improvements in the long term. Adjustments were applied to assumed base mortality to ensure that the rate used in 2020 was the same across all scenarios.

- In the charts in the presentation, male mortality rates are used, assuming standard (SAPS S3PMA) mortality rates. Circles for "actual rates" are based on a run of the CMI model without using the standard smoothing parameters.
- Charts illustrate mortality rates up to 2050, but rates were provided up to 2150 to enable liabilities to be calculated. Descriptions of each scenario and its possible impact on future mortality (short-term and long-term) are provided alongside each chart.
- Liability impacts of each scenario were calculated based on the ratio of male life expectancy at age 60 and rounded to the nearest 0.5%. It is noted that the impact could be different depending on discount rate. A difference might also be expected for joint life annuities although it's not likely that they will be significantly different given that figures are rounded to 0.5%.

- **Limitations:** these scenarios provide an indication as to what might be expected in particular scenarios, to provide an impact of mortality on liabilities to place alongside the impact from financial variables on the liabilities and the impact on assets from investment returns of the given scenario. The scenarios are not intended to provide the highest or lowest possible outcomes, and are not intended to show what **will** happen, rather they give a reasonable range of impacts against which to consider the possible impact of climate change on a particular pension scheme. The scenarios are deliberately not given likelihoods, we have not sought in any way to estimate how likely each scenario is.
- Scenarios are essentially expressed relative to a pension scheme's current position (i.e. the central scenario). If a pension scheme is already specifically reflecting a particular belief on the current path (for example, if it is believed that we are heading to a "No transition" scenario) then variations should be expressed relative to that scenario rather than the central one, otherwise the liability impact of that scenario would be incorrect for that scheme. At this stage we don't believe pension schemes are reflecting views on climate change in this way, but this may be (explicitly or implicitly) the case in future.

Part 2: DC Section

1. Governance

Whilst the Group Trustee maintains the ultimate responsibility for ensuring effective governance of climate-related risks and opportunities, within the DC section of the Group the Group 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, the Group Trustee will refer to the DC Delegated Investment Manager as "MWS" (Mercer Workplace Savings). As day to day management is delegated to MWS, the Group Trustee maintains a level of oversight by receiving regular updates on climate-related queries relevant to the scheme including both the risks to investments and opportunities available. There are no other persons undertaking governance activities in relation to the DC Section.

The Group Trustee is responsible for oversight of all strategic matters relating to the Group and is ultimately responsible for oversight of the Group. This includes approval of the governance and management framework relating to ESG considerations and climate related risks and opportunities.

The Group Trustee expects its advisers and investment managers to bring important climate-related issues and developments to its attention in a timely manner. The Group Trustee also expects its advisers and investment managers to have the appropriate knowledge on climate-related matters, and assesses the DC Investment Consultant (Mercer) annually as part of the monitoring of the investment consultant's objectives.

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

In line with the DB Section, the Group Trustee maintains a SIP, which details its key beliefs, identified risks and approach to ESG integration which includes the importance of ESG factors (including but not limited to climate risk). The IC (as above) also has day-to-day responsibility for the DC investment policy. The Group Trustee has also incorporated climate risk (both physical and transitional) as an explicit risk within its risk register, which is reviewed and updated annually.

The Group Trustee and IC also undertake regular training on an annual basis (or more frequently if required) around ESG topics to ensure their understanding and knowledge are up to date with regulatory requirements and evolving market developments and practice, and receive regular updates from MWS on its approach to climate change-related risks and opportunities. For example, the Group Trustee received training around the latest 'significant voting criteria' requirements during November 2022 and the MWS ESG report which was presented to them in September 2022.

The DC Investment Consultant attends the quarterly IC meetings quarterly to run through any material provided by MWS and detail the impact and relevance this has to the Group specifically. This will include quarterly carbon metrics and ESG ratings along with the MWS annual strategy review (inclusive of climate change analysis), ESG report and voting and engagement data annually. The Group Trustee reviews its DC Investment Consultant on a regular basis to ensure all stated processes for those managing / advising the Group on climate governance remain appropriate, and the Group Trustee has set objectives for its DC Investment Consultant which are assessed annually (these objectives include climate related risks and opportunities).

The key activities undertaken by the IC, with the support of the Group Trustee's advisers, are to:

- Ensure the investment strategy or any implementation proposals consider the impact of climate risks and opportunities
- Engage with the Group'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 Group's behalf.

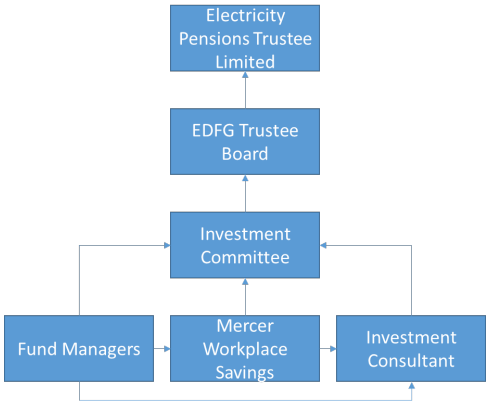
MWS actively monitors and manages the funds used by the Group, including by the following means:

- The day-to-day investment activities (including the selection, retention and realisation of investments) are delegated by MWS 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. MWS uses Mercer's proprietary ESG-rating system of investment managers to identify those sub-investment managers which meet these requirements. MWS 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 (MWS IGC). The MWS IGC is made up of senior individuals within Mercer's investments business. The MWS IGC meets at least quarterly and is 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 has its own Responsible Investment & Voting Policy.
- The MWS IGC includes 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).

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

- The Group Trustee receives quarterly performance reporting from their DC Investment Consultant, Mercer. The reports provide details of Mercer's ESG rating for each of the underlying sub-investment managers (this assesses how well the manager has integrated ESG and active ownership into their investment philosophy). Reports also include carbon metrics for the active equity funds. It is expected that these reports will be expanded to include carbon metrics for more funds as data becomes available. These ratings are monitored by the MWS IGC at their regular meetings. Any changes in ratings assessed by Mercer will be highlighted for discussion along with rationale behind the relevant upgrades/downgrades.
- The Group Trustee receives the remaining metric data annually, but expects this may be available on a more frequent basis in the future.
- The Group Trustee has access to 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 Group Trustee by the DC Investment Consultant.

- The Group 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 and any developments between reviews.
- Voting and engagement data on Mercer funds, this includes significant voting information. Significant votes are identified by holding size and association with engagement priorities (including climate change). Data is available on a quarterly basis if required. This data is also considered by the MWS IGC at their regular meetings.
- The Group Trustee expects the MWS IGC to make available scenario analysis and metrics as required by the TCFD.
- The Group Trustee reviews targets and progress against targets at least annually. Progress to date is shown later in this report in section 4 - Metrics and Targets.
- 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 DC Investment Consultant and considered by the IC at one of its quarterly meetings. This report also includes information on stewardship data and feeds into the targets set by MWS, which the Group Trustee reviews annually.
- The IC meets with a member of the MWS Investment Team annually to discuss and question the reporting provided to them, including the ESG report. Excepting this meeting and the analysis undertaken for this report, the IC have not explicitly considered Climate Change Risk within the DC Section due to the delegated nature of the arrangement. **Structural diagram showing which groups of people or individual roles have responsibilities for governance of climate-related risks and opportunities.**



2. Strategy

The Group Trustee sets and reviews the investment strategy for the lifestyle solution which the Group is currently aligned to. MWS undertakes an annual strategy review of the strategic asset allocation of the multi-asset funds made available to members.

The IC undertakes 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 funds available through the MWS arrangement that are used by the members.

This report aims to include scenario analysis and metrics for the funds deemed the Group's "popular arrangements"; as required by statutory guidance. The statutory guidance defines a popular arrangement as

one in which £100m or more of the Group's assets are invested, or which accounts for 10% or more of the assets used to provide money purchase benefits. Within the DC Section, the popular arrangements as at 31 December 2022 have been identified as the Cash Retirement Strategy and the Annuity Retirement Strategy (noting this has changed in the last scheme year). The Funds that make up these strategies are as follows:

- EDFG Growth Fund – the underlying fund is the Mercer Growth Fund
- EDFG Passive UK Corporate Bond Fund – the underlying fund is the iShares Corporate Bond Index Fund
- EDFG Cash Fund – the underlying fund is the BlackRock Institutional Sterling Liquidity Fund
- EDFG Annuity Retirement Fund – the underlying funds are 75% LGIM Pre-Retirement & 25% Mercer Cash

The Group Trustee is aware as part of the regulatory guidance they are required to disclose metrics data for all popular DC arrangements. The Lifestyle arrangements detailed above are defined as popular arrangements with assets over 10% of the DC Section of the Group. However, at the time of preparing this report, the Group Trustee did not have sufficient levels of data to provide a more detailed picture of the carbon exposures at the total strategy level for the lifestyle arrangements. The Group Trustee is working with their advisors and administrator to be in a position to include reporting at this level of detail in future reports. The EDFG Growth Fund (c.68% of total assets) is the only constituent of the lifestyle strategies that is in excess of 10% and therefore this report has focused on the data from this Fund. The Group Trustee is 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 Group Trustee will be monitoring this situation.

The time horizons identified by the Group Trustee for the purposes of the scenario analysis are detailed below. 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)

The climate scenarios are 40 year projections, this is the longest time horizon considered for scenario analysis. A member will be invested for at least 35 years (based on being able to access your pension at age 57 and auto enrolment starting at age 22) but is likely to be longer than this.

MWS, has conducted the following analysis to highlight the additional climate change impact on return p.a. over 10 years, 25 years and 40 years based on the strategic asset allocation as at 31 December 2022. For the

Group, the majority of its members are likely to be within 30 years of retirement, though there is potential for a small number of its youngest members to remain invested in 40 years' time.

MWS' analysis illustrates that a failed transition is by far the worst in terms of long term returns.

This supports the view that long term investors collectively trying to bring about an effective transition is aligned to their fiduciary duty to seek the best return within risk, liquidity and complexity restraints.

Mercer Growth Fund, annualised impact on return

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%

By setting the shorter time horizon at 10 years, MWS is able to assess the impact of transition risks; rapid transition risks are priced in around 2025. All scenarios have priced in shocks relating to future physical damage from the end of the 2020s into the 2030s.

Physical risks are regionally differentiated, consider variation in expected temperature increase per region and increase dramatically with rising average global temperature. Physical risks are built up from:

- Gradual physical impacts associated with rising temperature (agricultural, labour, and industrial productivity losses)
- Economic impacts from climate-related extreme weather events

Current modelling does not capture environmental tipping points or knock-on effects (e.g., migration and conflict).

The risks and opportunities identified by the Group Trustee are set out in the DB Section, Part 1, above. As the delegated manager, MWS recognises 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, which the MWS strategy aims to better understand and mitigate where possible.

Over the short term (10 years), risks may present themselves through transition risk and rapid market re-pricing relating to climate transition as:

- Scenario pathways become clearer. For example, if the probability of a below 2°C scenario became more likely, then any transition risk expected could occur more quickly.

- Market awareness grows. For example, the implications of the physical impacts of climate change become clearer to markets and impact the asset valuations.
- Policy changes surprise markets. For example, an introduction of carbon tax across key markets to which the arrangement is exposed, at a sufficiently high price to impact behaviour.
- Perceived or real increased pricing of greenhouse gas emissions/carbon.
- 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.
- Investments in transition-aligned strategies may provide the Group a partial hedge against climate transition risks, such as policy risk (risks related to changes in the regulatory frameworks), legal risks, technology risk inherent in advancement of low-carbon economies, market risk which includes the supply and demand for goods, services and investments and consumer behaviour, and reputational risk.

The ability of MWS to consider these short-term changes means it can position the investment arrangement 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 (25 years), throughout this period, physical risks will begin to dominate. This includes the impact of natural catastrophes leading to physical damages through extreme weather events. Risks associated with the transition to a low carbon economy are still likely to exist. These include the development of technology and low carbon solutions. Policy, legislation and regulation are likely to also 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 have started to crystallise stranded asset risks over the medium term. The Group's ability to understand these changes may position it favourably, for example by increasing investments in new emerging technologies. MWS seeks 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 (40+ years), physical risks are again expected to dominate. 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 Group's ability to understand these changes may position it 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).

The strategic asset allocation of the multi-asset funds is well-diversified across asset classes, sectors and geographies in order to manage risks, including climate-related risks. Equally MWS believe that there are climate-related opportunities, and these are also accounted for in the strategic asset allocation. Importantly, this does not necessarily mean the exclusion of all highly-emitting investments.

MWS considers other, bottom up, mechanisms to manage climate risks where necessary, these are detailed in the "Risk Management" section.

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 has explicit decarbonisation targets. More detail on this is provided in section 3 - Risk Management, below. The greatest emission risk in the current arrangement arises from Global Listed Infrastructure and Low Volatility Equity (along with Emerging Market Equity also within the Mercer Growth Fund). Whilst these asset classes contribute the highest emissions at present within the arrangement, there is still a relevant place for these within the strategic asset allocation at present.

Scenario analysis

This analysis was originally completed for the 2022 report and was updated during the scheme year. The Group Trustee notes that that member demographics have changed significantly and as such the definition of the Group's popular arrangement has been updated. However, given the funds that are now used within the popular lifestyles, namely those with high allocation to sovereign bonds or cash, the Group Trustee has determined that it would not be appropriate to consider explicit scenario analysis on these strategies at this time. This is consistent with the regulatory guidance to update scenario analysis at least every three years.

The Group Trustee will consider scenario analysis when relevant to strategy decisions on an ongoing basis. A more detailed explanation of the scenario analysis undertaken is included in Part 2: Appendix A.

3. Risk Management

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

The Group Trustee seeks to identify and assesses climate-related risks at the total portfolio level and at the individual asset level. The Group Trustee recognises that the tools and techniques for assessing climate-related risks in investment portfolios are imperfect but are rapidly evolving. The Group 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.

The table below summarises the primary climate-related risk management processes and activities of the Group Trustee and its committees:

	Activity	Approach	Comments
Governance	Training	Receive training on climate-related issues, including the physical and transition risks of climate change, to ensure that the Group Trustee has the appropriate degree of knowledge and understanding on climate-related issues to support good decision-making.	While no training was received during the scheme year, in previous years training was received as part of the regular Group Trustee meetings. Group Trustee Directors will receive additional training as and when appropriate.
	Advisors	Review advisor objectives to ensure advisors have appropriate climate capability, and bring important, relevant and timely climate-related	This is reviewed annually as part of the review of the Investment Consultant's objectives in Q4 each year.

		issues to the Group Trustee's attention.	
	Risk register	The Group Trustee maintains a risk register to monitor and mitigate financially material risks.	As noted above, the Group Trustee has incorporated climate risk as an explicit risk within its risk register, covering both transition and physical risks. This allows the Group Trustee to better identify and manage the climate-related risks which are relevant to the Group on an ongoing basis.
	Investment Managers	Review the ESG policies and strategies of the Group's investment managers to understand how ESG themes including climate risks are implemented in their investment approach.	The Group Trustee receives quarterly performance reporting from Mercer. The reports provide details of Mercer's ESG rating for each of the underlying investment managers (this assesses how well the investment 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 an investment 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 Group Trustee in ongoing reporting.
Strategy	**Scenarios** **Scenario appropriateness**	Undertake quantitative scenario analysis to understand the impact of climate related risks on the assets. Review of scenarios in light of changes to data availability of climate science and/or in response to investment strategy change	Scenario Analysis will be undertaken on an annual basis; noting that in the event that significant changes have occurred in the data or the investment strategy this may occur more frequently.
	Risks and opportunities	Identify and obtain specific advice on the climate-related risks and opportunities within the investment strategy and assess their likelihood and impact.	The Group Trustee considers the formal investment strategy review which is undertaken by MWS annually, which incorporates climate change risks and opportunities.
Risk Management	**Risk prioritisation**	Consider the prioritisation of identified risks, and the management of those that represent the most significant potential for loss and those that are the most likely to occur.	Both climate change related risks and wider investment risks are considered as important by the Group Trustee. The Group Trustee recognises the challenges with various metrics, tools and modelling techniques used to assess climate change risks. The Group Trustee aims to work with the DC Investment Consultant 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.
	Group documentation	Include climate-related risks and opportunities in the Group's documents such as the SIP and regularly review these.	Group documents are reviewed annually, and include information on climate-related risks and opportunities as appropriate.

	Stewardship	Climate change is a stewardship priority and through stewardship the Group seeks to improve the risk characteristics of its existing investments.	The Group Trustee receives 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). The Group Trustee has adopted MWS' key stewardship priorities for the purposes of assessing the significant votes undertaken on its behalf in its annual implementation statement.
Metrics and targets	**Metrics**	Obtain data for metrics.	Quarterly investment performance reporting includes carbon metrics for the Mercer Growth Fund. The Group Trustee will engage with MWS through its DC Investment Consultant 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 (as detailed in section 4 - Metrics and Targets, below). In addition to the scenario analysis conducted as part of the annual strategy review, MWS has set a target of net-zero absolute carbon emissions for the Mercer Growth Fund by 2050. The aim is to reduce emissions for Mercer Growth Fund by 45% from their 2019 baseline level by 2030 (considering Scope 1 and 2 emissions).
	Targets	Review progress against climate targets	
	Review	Review continued appropriateness of metrics and progress against climate-related target.	

MWS will be working closely with its appointed investment managers to identify and manage a staged emissions reduction plan, oversee allocations to climate solutions, and steward an increase in transition capacity across the funds.

This target has been set to manage members' exposure to climate-related risks. Progress on reductions will be monitored on an annual basis. Mercer's Analytics for Climate Transition (ACT) tool is used to help to set a transition pathway for the funds. The output from this tool outlines companies' current emissions but also their transition capacity and will allow MWS to manage high carbon risk and to engage with companies on their ability to support a zero emissions target.

Climate change-related risks are identified both from a bottom-up and a top-down perspective. Scenario analysis, such as that discussed in section 2 - Strategy of this report and in Part 2: Appendix A, analyses climate risks from a top down perspective – identifying which asset classes are most exposed to climate change-related risks.

From a bottom-up perspective, the carbon intensity or implied temperature rise of component funds can be considered. These carbon metrics are included in Part 2: Appendix B. This identifies the key sources of company / geographic / sector level risks.

The risks identified from a top down perspective are managed through the setting of the strategic asset allocation of the funds. Other mechanisms for managing climate-related risks from a bottom up perspective are:

- Investment manager selection – active managers can incorporate ESG factors into their investment decision making process, Mercer's proprietary ESG ratings assesses how well managers do this. Ratings are reported in quarterly investment performance reports.

- Stewardship – Investment managers are expected to use active ownership to protect long term shareholder value, this will include engaging on climate change management (one of the MWS IGC's engagement priorities). Mercer's ESG ratings consider investment managers' stewardship processes (in quarterly investment performance reports) and more detailed stewardship reporting is provided for implementation statements and within the Annual ESG Report that MWS provides to the Group Trustee.

- Index selection – a number of passive allocations within our multi-asset fund track ESG tilted indices which tilt away from carbon intense companies. Details of this are included within the Annual ESG Report.

- Exclusion – climate-based exclusions will be considered and reviewed annually – from July 2022 all companies who generate more than 1% of revenue from fossil fuel activities derived from arctic drilling, thermal coal mining or oil sands will be excluded from a number of the allocations within the Mercer Growth Fund. Details of this will be included within the Annual ESG Report.

4. Metrics and Targets

This report presents carbon data analysis for the Group's popular arrangements (the Mercer Growth Fund) as at 31 December 2022. The data is based on the current allocations of the funds, i.e. including dynamic asset allocation. This is shown in Part 2: Appendix B along with metric analysis.

Measuring Green House Gas (GHG) emissions is a key way for pension schemes to assess their exposure to climate change. GHGs are produced by burning fossil fuels, meat and dairy farming, and some industrial processes. When GHGs are released into the atmosphere, they trap heat in the atmosphere causing global warming and contributing to climate change.

GHGs are categorised into three types or 'scopes' by the GHG Protocol, the world's most used GHG 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

With regard to quantitative metrics, the Group Trustee, on an annual basis, monitors and reports:

	Metric	Description
Absolute emissions	Total Greenhouse Gas Emissions	Represents each company's reported or estimated greenhouse gas emissions, where available. At a fund level it represents the total greenhouse gas emissions attributable to the fund.
Emissions intensity	Carbon Footprint	Measures the carbon emissions (in metrics tons) per million £ sterling invested. This is the TCFD's recommended metric for measuring carbon emission intensity.
	Weighted Average Carbon Intensity (WACI)	This is an alternative carbon emission intensity metric and measures the carbon emissions (in metric tons) generated per million US dollars of revenue generated. For sovereign assets, this is normalised by Gross Domestic Product (GDP) rather than revenue. It is currently common for this to be reported in US dollars irrelevant of domicile.
Portfolio Alignment	Implied Temperature Rise	Analyses the warming scenario that the investment is aligned with on a forward looking basis. Measured in °C. As a reminder, the 2015 Paris Agreement was to keep global temperature rises to below 2°C above pre-industrial levels.
Additional non-emissions based	Aggregated 1p5 Climate VaR	Measures the potential future cost and/or profit relating to the holding's exposure to future climate change impacts. This looks at the aggregate of transition and physical cost and profit projections until the end of the century 2100. Measured in %.
	Data quality	A measure of the proportion of the portfolio that the Group Trustee has high quality data for (i.e., data which is based on verified, reported, or reasonably estimated emissions, versus that which is unavailable). This has been selected on the basis that it provides a consistent and comparable measure of the level of confidence in the data.

The Group Trustee receives these metrics on an annual basis from the DC Investment Consultant on behalf of MWS, although carbon metrics for active equities are also included in quarterly reports. MWS will periodically review its selection of metrics to ensure they remain appropriate.

Due to practical data availability, the figures quoted in the report assume that the metrics of the companies not covered by the analysis are representative of 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 zero emissions) in line with

statutory guidance. The Group Trustee recognises 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.

The Group Trustee will adopt the targets as set by the delegated investment manager, MWS. The Group Trustee and MWS are committed to reducing the overall WACI over time.

The target for the Mercer Growth Fund has been set against WACI and is aligned with the funds' net-zero commitment.

What is the commitment?

- In March 2021[1], Mercer committed the Mercer Growth Fund (and other multi-client multi-asset funds) to **achieving net-zero absolute portfolio carbon emissions by 2050**[2]. To achieve this, Mercer expects to **reduce portfolio carbon emissions intensity (as measured by WACI) by at least 45 per cent from 2019 baseline levels by 2030**. The commitment is consistent with targeting a 1.5°C limit on global temperature increases and the Paris Agreement's ambitions.
- Robust analysis informed Mercer's view that this carbon reduction target, supported by a climate transition plan, is possible while remaining consistent with investment objectives and risk/return profiles to deliver on both short and long term expectations and best interests.
- The goal is to reduce both Absolute Emissions and WACI to net zero by 2050 (considering only Scope 1 and Scope 2) i.e. focused on emissions reductions but likely with some carbon removals included in due course.
- WACI figures are based on listed assets only and does not include sovereign assets. For sovereign exposures, Mercer will be tracking what portion of countries have made net zero commitments and at what date – the weighted average year for reaching net zero should move to 2050 or sooner. Metrics used for country/sovereign exposures are not directly comparable with listed figures, as such the two are not compared, aggregated or otherwise mixed.

Progress to date is as follows (WACI: tCO2e/$m revenue):

	Mercer Growth	Progress towards target
31 Dec 2019 (Baseline)	329.6	
31 Dec 2022 (Target)	*280.0*	
31 Dec 2022 (Actual)	211.4	-36% (below)

[1] The commitment was announced March 2021, but uses a **31 December 2019** baseline.

[2] Defined as: absolute carbon emissions (Scope 1&2) per $M of AUM. Note that absolute emissions are the priority for real world emissions outcomes, however, Weighted Average Carbon Intensity (WACI) remains an important measure from a portfolio perspective for decision making in the shorter term.

MWS will be working closely with its appointed investment managers to identify and manage a staged emissions reduction plan, oversee allocations to climate solutions, and steward an increase in transition capacity across the funds. It is evident that the Group is making good progress for the Mercer Growth Fund, as the current WACI figure is below the target threshold for the scheme year. The Group Trustee is comfortable maintaining the current target and will continue to monitor progress against the target annually.

In order to ensure that the target is met, the MWS IGC adheres to its responsible investment four pillar framework. The four pillar framework covers the following four key areas which specifically ensures that climate risks are considered across the investment strategy:

- **Integration**: When selecting investment managers, the MWS IGC ensures that it only appoints investment managers who thoroughly consider ESG and climate considerations (risks and opportunities) into their security selection and portfolio construction where relevant. These investment managers are identified by Mercer's manager research team rating investment managers using Mercer's ESG rating process.

- **Stewardship**: The MWS IGC engages with its investment managers to ensure they maintain strong processes in relation to voting to ensure activities and behaviours are aligned with MWS's wider ESG beliefs and carbon emission reduction targets. The MWS IGC also does an annual survey of the engagement activities that are undertaken by its investment managers with investee companies with a focus on those engagements related to MWS's engagement priorities, including climate change.

- **Investment**: MWS's Multi-Asset funds (including the Mercer Growth Fund) hold direct allocations to ESG tilted indices currently through global equities, global high yield bonds and emerging market debt. These allocations will tilt away from higher emitting companies and the MWS IGC keeps under regular review whether additional allocations to ESG tilted allocations can and should be made. The sustainable global equity allocation tracks a Paris-Aligned benchmark which has explicit carbon reduction targets.

- **Screening**: The MWS IGC considers certain screens and whether exclusions are applied. In 2022 MWS introduced fossil fuel exclusions to a number of the underlying funds within the multi-asset funds. The majority of these funds exclude companies that generate more than 1% of their revenue from thermal coal extraction, arctic drilling or oil tar sand mining. The MWS IGC keeps the list of excluded activities under regular review.

The Group Trustee is satisfied that good progress is being made with integrating climate considerations into the Mercer Growth Fund, which is reflected in the reduction shown above and ESG ratings assigned to the appointed underlying investment strategies by the Group Trustee's advisors. The Group Trustee also notes that allocations are being introduced (where feasible) to funds that have a dedicated sustainability focus in terms of exclusions applied and significantly lower carbon emissions compared to global equities.

Part 2: Appendix A - Scenario Analysis conducted for the 2022 report

Climate shock stress tests:

In reality, sudden changes in return impacts are more likely than neat, annual averages. Stress testing changes in scenario probability, market awareness, and physical damage impacts help to prepare for this eventuality.

Climate Scenario Analysis Assumptions:

	Rapid Transition	Orderly Transition	Failed Transition
Summary	Sudden divestments in 2025 to align portfolios to the Paris Agreement goals have disruptive effects on financial markets with sudden repricing followed by stranded assets and a sentiment shock.	Political and social organizations act quickly and predictably to implement the recommendations of the Paris Agreement to limit global warming to below 2°C above pre-industrial levels by 2100.	The world fails to meet the Paris Agreement goals and global warming reaches 4.3°C above pre-industrial levels by 2100. Physical climate impacts cause large reductions in economic productivity and increasing impacts from extreme weather events.
Cumulative emissions to 2100	416 GtCO2e	810 GtCO2e	5,127 GtCO2e
Key policy and technology assumptions	An ambitious policy regime is pursued to encourage greater decarbonisation of the electricity sector and to reduce emissions across all sectors of the economy. Higher carbon prices, larger investment in energy efficiency and faster phase out of coal-fired power generation under a 'Rapid' transition.		Existing policy regimes are continued with the same level of ambition.
Financial climate modelling	Pricing in of transition and physical risks of the coming 40 years occurs within one year in 2025. As a result of this aggressive market correction, a confidence shock to the financial system takes place in the same year.	Pricing in of transition and physical risks until 2050 takes place over the first 4 years.	Physical risks are priced in two different periods: 2026-2030 (risks of first 40 years) and 2036-2040 (risks of 40-80 years).
Physical risk impact on GDP	Physical risks are regionally differentiated, consider variation in expected temperature increase per region and increase dramatically with rising average global temperature. Physical risks are built up from: Gradual physical impacts associated with rising temperature (agricultural, labour, and industrial productivity losses) Economic impacts from climate-related extreme weather events Current modelling does not capture environmental tipping points or knock-on effects (e.g., migration and conflict).		
Physical risk impact on inflation	Gradual physical impact (supply shocks) on inflation included through damages	No explicit modelling of physical risk impact on inflation (supply-side	Severe gradual physical impact (supply shocks) on inflation included through

	Rapid Transition	Orderly Transition	Failed Transition
	to agriculture and change in food prices. Total impact on a Global CPI Index is +2% in 2100.	shocks). Impact on inflation follows historical relationship between GDP and CPI.	damages to agriculture and change in food prices. Total impact on a Global CPI Index is +15% in 2100.

Source: Mercer and Ortec. Climate scenarios as at December 2022.

The return impacts of the climate scenarios represented in this report are relative to the 'baseline'. The baseline represents what we are assuming the market is currently pricing in. The baseline includes a 10% weight to a **Failed Transition**, 40% weight to an **Orderly Transition**, 10% to a **Rapid Transition** and 40% to a range of **low impact scenarios**.

Limitations associated with climate modelling

Climate scenario modelling is a complex process. The Trustee is aware of the modelling limitations. In particular:

1. The further into the future you go, the less reliable any quantitative modelling will be.
2. 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.
3. Financial stability and insurance 'breakdown' is 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.
4. Most adaptation costs and social factors are not priced into the models. These include population health and climate-related migration.
5. New and emerging risks, such as the impact of climate change on biodiversity loss, and vice versa, is expected to be integrated into climate scenario modelling over time once the supporting science and impact on econometrics and finance is better understood.

Key points at different timeframes

- **10 Years** – Transition risks are the most significant, therefore the rapid transition is most impactful. However, the failed transition becomes more impactful as future physical damages start to be priced in.

  The impact of the orderly transition is small on the basis that transition costs and impacts are smaller and largely priced in.

- **25 Years** – over the medium term, physical risks dominate and the failed transition becomes the most impactful scenario.

- **40 years** – Over the long term, physical damages are the dominant driver and the failed transition is by far the worst scenario.

  Within the orderly transition we see the additional warming and hence damage, meaning it becomes a slightly more negative scenario compared to the rapid transition.

Part 2 : Appendix B - Carbon metric analysis

Climate reporting as of 31 December 2022 can be found on pages 43-46.

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.

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) 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.

All modelling provided by Mercer.

Absolute Emissions Metrics

	Group Assets (£m)	Proportion in Listed Assets	Absolute Emissions (tonnes CO_2E)
Mercer Growth Fund	**45.8**	**91.5**	**3,782**

Notes: Data Source: MSCI ESG Data, Mercer Calculations. Calculated figures are rebased for representative full coverage. Figures are based on best-available data at time of calculation. Calculation methodologies are subject to change based on evolving market standards.

Emissions Intensity, Portfolio Alignment and Non-Emission Based Metrics

Mercer Growth Fund			Listed Assets (91.5% of fund)		Sovereign Assets (8.5% of fund)	
Asset Class	Fund Weight	Coverage for WACI / Sales	WACI / $m Sales	Carbon Footprint / £m invested	WACI / $m GDP	Implied Temperature Rise
UK Equity	3.0%	93.6%	120.6	83.1	-	2.4
Europe (ex-UK) Equity	4.0%	100.0%	116.7	73.4	-	2.1
Japan Equity	2.0%	100.0%	77.9	54.6	-	2.6
Multi-Factor Global Equity	7.0%	100.0%	108.7	49.3	-	2.6
Sustainable Global Equity	7.5%	99.6%	37.9	11.9	-	1.9
Emerging Markets Equity	13.0%	100.0%	296.3	143.2	271.0	3.0
Small Cap Equity	8.0%	99.7%	161.5	87.7	-	2.8
Low Volatility Equity	6.5%	99.2%	112.3	30.2	-	2.1
Listed Infrastructure Equity	7.5%	99.7%	833.9	220.6	-	2.9
Global REITs	7.5%	99.8%	88.5	7.5	-	1.8
Systematic Macro	4.0%	0.0%	-	-	-	-
Global High Yield Bonds	17.0%	83.7%	209.3	115.8	-	3.3
Asia High Yield Bonds	3.0%	73.5%	204.1	114.1	271.0	3.7
Emerging Market Debt	7.5%	0.0%	-	-	880.9	-
Absolute Return Bonds	0.3%	73.2%	102.9	49.2	416.0	2.9
Corporate Bonds (UK)	0.3%	92.0%	78.8	49.5	606.4	1.9
Corporate Bonds (US)	0.3%	96.2%	306.2	76.4	-	2.6
Corporate Bonds (Euro)	1.3%	96.8%	124.9	88.3	-	2.1

Cash	0.5%	0.0%	-	-	-	-
Pro-Rated Total	**100.0%**		**211.4**	**90.4**	**808.6**	**2.8**

Source: MSCI, Mercer Calculations. Proxies: UK Equity – FTSE All Share Index, European Equity – MSCI Europe ex-UK Index, Japan Equity – MSCI Japan Index, Emerging Market Debt – JP Morgan EM GBI, Systematic Macro –Cash, Asia High Yield Bonds – Mercer Global High Yield Bond Fund, 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. Gilt All Stocks Index. USD/GBP Exchange Rate: 0.83132

Data Quality	Non Eligible	Sovereigns	Verified	Reported	Estimated	Not Reported	Not Estimated
Scope 1 & 2	7.0%	8.5%	0.0%	58.7%	21.8%	3.9%	
Scope 3	7.0%	8.5%			79.9%		4.6%

Scope 3	Upstream	Downstream
Carbon Footprint (tCO2e/£m invested)	123.8	369.0
WACI (tCO2e/$m revenue)	234.9	452.9

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.

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) 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.

Important notices from data providers

Mercer

Past performance does not guarantee future results. Information contained herein has been obtained from a range of third-party sources. While the information is believed to be reliable, Mercer has not sought to verify it independently. As such, Mercer makes no representations or warranties as to the accuracy of the information presented and takes no responsibility or liability (including for indirect, consequential or incidental damages), for any error, omission or inaccuracy in the data supplied by any third party. The information does not constitute an offer or a solicitation of an offer to buy or sell securities, commodities and/or any other financial instruments or products or constitute a solicitation on behalf of any of the investment managers, their affiliates, products or strategies that Mercer may evaluate or recommend. This does not offer any advice regarding current or future applicable laws or regulations. Mercer does not provide legal advice. You should contact your legal adviser before making any decisions with legal and/or regulatory implications.

Mercer Limited is authorised and regulated by the Financial Conduct Authority. Registered in England and Wales No. 984275. Registered Office: 1 Tower Place West, Tower Place, London EC3R 5BU.

MSCI

In addition, 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.

Ortec Finance

Mercer has entered into a global agreement with Ortec Finance regarding the use of their climate scenarios by Mercer's clients.

Climate scenarios have been prepared with care using the best available data. The scenarios may contain information provided by third parties or derived from third party data and/or data that may have been categorized or otherwise reported based upon client direction. The scenarios are for information purposes and are not to be construed as investment advice. Ortec Finance assumes no responsibility for the accuracy, timeliness or completeness of any such information. Ortec Finance accepts no liability for the consequences of investment decisions made in relation on information in this report. The scenarios are copyright of Ortec Finance. You may not, except with our express written permission, distribute or commercially exploit the content. All Ortec Finance services and activities are governed by its general terms and conditions which may be consulted on www.ortecfinance.com and shall be forwarded free of charge upon request.

Glossary of Terms (ESG and Carbon Metrics)

Enterprise Value Including Cash (EVIC): Defined as the sum of market capitalisation of shares and book values of total debts and minority interests at fiscal year end. No deductions of cash or cash equivalents are made to avoid potential negative enterprise values. This is the recommended denominator metric for carbon attribution according to the GHG Protocol, the global standard for carbon accounting endorsed by the European Union and the DWP.

Estimated Scope 3 Carbon Footprint (tCO2e / EVIC £m): Measurement of the estimated Scope 3 CO2e emissions of a fund per million pounds of EVIC. Scope 3 emissions refer to all those that are not in direct control of a company's productive activities. Namely, all those emissions from a company's upstream supply chains and downstream product use by the consumer. For a pension scheme, this is the emissions arising from their investments (scope 1,2 and 3).

Estimated Total Mandate Carbon Emissions (tons): Represents the total share of Scope 1, Scope 2 and Scope 3 carbon emissions a fund is responsible for. Please note the metric is sensitive to the investment holding size in the fund.

MSCI Climate Metrics Coverage: The proportion by value of a fund for which carbon metrics are available from MSCI.

Scope 1 & 2 Carbon Footprint (tCO2e / EVIC £m): Measurement of the Scope 1 & 2 CO2e emissions of a fund per million pounds of EVIC. Scope 1 emissions refer to those which are directly connected to the production of a company's product or service e.g., burning of fossil fuels to power the electricity grid. Scope 2 emissions refer to those from electricity used to power company facilities. For a pension scheme, scope 1 emissions include the use of gas fuel and refrigerants in the office whilst scope 2 emissions include the use of electricity in the office buildings.

Implied Temperate Rise: expressed as °C * portfolio weights. This metric uses MSCI methodology and analyses the warming potential or the contribution of a company's activities towards climate change. Signifies which warming scenario the company's activities are aligned with. Thereafter a 'portfolio warming potential' is calculated as a weighted aggregate of the company level warming potential.

Total Carbon Footprint (tCO2e / EVIC £m): Measurement of the CO2e emissions of a fund per million pounds of EVIC using Scope 1, Scope 2 and Scope 3 emissions. Given a company's direct Scope 1 emissions will inevitably be another company's indirect Scope 3 emissions, aggregating the individual Scope emissions results in a higher number of emissions than exists. To mitigate double-counting, we apply a scaling factor in accordance with MSCI's methodology. This metric may be used to assess a fund's contribution to global warming versus other funds. Previous Total Carbon Emissions (tCO2e / £m invested) are estimated by looking at the funds' respective holdings and emissions 12 months ago.

Tons of Carbon Dioxide Equivalents (tCO2e): Tons of greenhouse gases including methane, nitrous oxide, carbon dioxide, and fluorinated gases. Given the abundance and prominence of carbon as a greenhouse gas, all the other gasses are considered carbon equivalents.

Weighted Average Carbon Intensity (tCO2e / sales £): A weighted average of the scope 1 & 2 emissions carbon intensity of companies, defined as a company's total emissions divided by its total sales. This metric can be interpreted as a measure of the relative carbon efficiency of a fund, can be used for sovereign assets, and is not affected by movements in companies' valuation. However, it is sensitive to movements in price.

Carbon Footprint (tCO2e / EVIC £m) (DC table): Includes scope 1 and 2 emissions but does not include scope 3 emissions. This means that for some companies the assessment of their carbon footprint could be considered an understatement of their carbon footprint. Scope 3 emissions are currently reported separately.

Absolute emissions value (DC table): The total GHG emissions associated with the portfolio. It is an absolute measure of greenhouse gas output from the Group's investments and is measured in tonnes of carbon dioxide equivalent (tCO2e).