Wincanton plc Pension Scheme

Climate change governance and reporting in line with the recommendations of the Task Force on Climate-related Financial Disclosures (“TCFD”)

Reporting period: 12 months to 31 March 2024

October 2024

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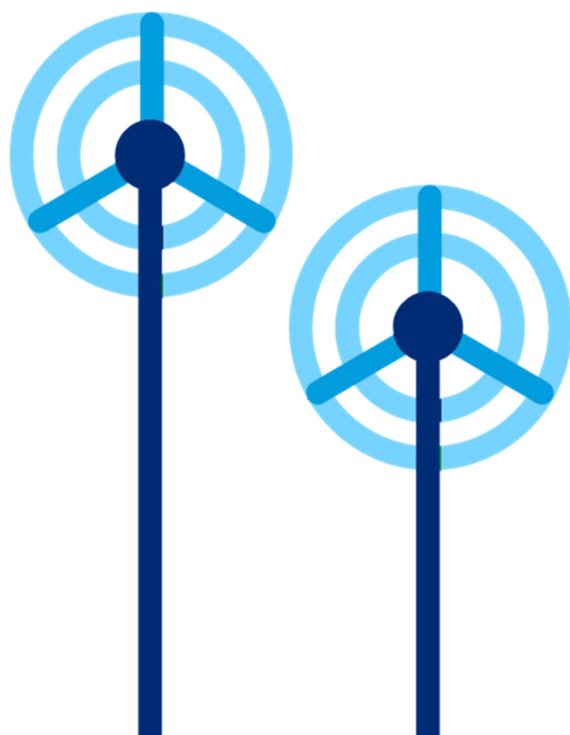
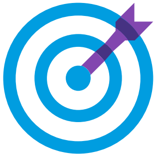


Executive Summary – Defined Benefit Section

Climate-related target and progress against the target



The Trustee has set a target of reducing the Weighted Average Carbon Intensity ("WACI") (Scope 1 and 2 emissions) for the aggregate credit portfolio (comprising the Insight and PGIM buy and maintain credit portfolios) by 35% by 2030 relative to a 2020 base year. As at 31 December 2023, WACI has reduced by 21% relative to the base year.

How the current portfolio would respond under different warming pathway scenarios

*warming relative to pre-industrial levels

We have analysed the investment strategy for the Defined Benefit Section on three climate scenarios for the time periods shown below.

Analysis Results		Per annum return impact to projection horizon
Scenario	Projection Horizon	
Rapid Transition (1.5 ºC)	2026 (3yrs)	
	2030 (7yrs)	
	2050 (27yrs)	
Orderly Transition (2 ºC)	2026 (3yrs)	
	2030 (7yrs)	
	2050 (27yrs)	
Failed Transition (4 ºC)	2026 (3yrs)	
	2030 (7yrs)	
	2050 (27yrs)	

-0.5% p.a. -0.2% -0.1% 0.0% 0.1% p.a.

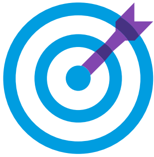
Now to 2026 (3 years)	2026 to 2030 (3 to 7 years)	2030 to 2050 (7 to 27 years)
Short term	**Medium term**	**Long term**
A full actuarial cycle, in addition to the remaining time in the current cycle	Approximate timeframe to transition to a low risk portfolio	In line with the expected net zero target timeframe

What does this tell us?

The Defined Benefit Section is well positioned from a climate risk perspective due to the de-risking to fixed income type asset classes undertaken to date. Muted exposure to short-term transition risk has been noted by the Trustee. However, the expected impact on the funding level is low and the Trustee is not planning to take specific action to mitigate this risk. The DB Section is also well protected against physical risks arising in a Failed Transition scenario, hence the Trustee has no current plans to adjust the investment strategy or funding approach to mitigate against such an outcome, but will keep this under ongoing review. The Trustee is mindful that certain sectors, primarily Oil & gas, Fossil Fuels and Renewables, are most impacted by climate transition. The Trustee is engaging with the credit managers to better understand the portfolio holdings in these sectors, and their transition pathways, before deciding on any portfolio restrictions or exclusions.

Executive Summary – Defined Contribution Section

Climate-related targets



The Trustee has set a target of reducing the Weighted Average Carbon Intensity (Scope 1 and 2 emissions) for the Popular Arrangement by 30% by 2030 relative to a 2022 base year. The target is unchanged since last year. WACI has increased marginally since the last report, mainly due to a change in the Diversified Growth Fund ("DGF") manager. We note the Trustee has reviewed the WACI progression for the current DGF and there has been positive progress from the previous year.

How the current portfolio would respond under different warming pathway scenarios

We have analysed the investment strategy for the Defined Contribution ("DC") Section Popular Arrangement on three climate scenarios for the time periods shown below.

Analysis Results		Per annum return impact to projection horizon based on £100 starting value
Scenario	**Projection Horizon**	
Rapid Transition (1.5ºC)	2028 (5 years)	
	2043 (20 years)	
	2063 (40 years)	
Orderly Transition (2.0ºC)	2028 (5 years)	
	2043 (20 years)	
	2063 (40 years)	
Failed Transition (4 ºC)	2028 (5 years)	
	2043 (20 years)	
	2063 (40 years)	

Now to 2028 (5 years) | **2028 to 2043 (5 to 20 years)** | **2043 to 2063 (20 to 40 years)**

Timeframes are set to capture potential impact on as broad a range of membership as possible. The long-term timeframe reflects a member joining at a young age and staying invested in the strategy for their working life. The medium-term timeframe reflects the period until the average age member, based on the current membership profile, is deep into the de-risking period in the run-up to expected retirement. The short-term timeframe captures imminent risks that will impact all members.

What does this tell us?

The DC Section will have long-term exposure to equities, directly and via the DGF manager, as well as other growth type assets, which will cause member outcomes to be materially affected under a Failed Transition over the long-term.

The Trustee considers climate change risks amongst other risks when setting and reviewing the overall investment strategy and asset allocation. The Trustee also engages with the managers to gain a deeper understanding of the portfolios, and how risk within the current portfolios can be mitigated.

The Trustee will be considering the integration of sustainable investment themes, including climate change, within the fund options available to members. A review of these options is scheduled for the next Scheme year.

Section 1
Introduction

Dear Members,

Welcome to our second climate change report, which has been prepared in line with the recommendations of the Task Force on Climate-related Financial Disclosures ('TCFD') and the statutory requirements prescribed by the Department of Work and Pensions[1]. This report covers both the Defined Benefit ('DB') and Defined Contribution ('DC') Sections of the Wincanton plc Pension Scheme ('the Scheme').

The Trustee recognises climate change as a material risk that could impact the financial security of members' benefits if it is not properly measured and managed. All countries, companies and individuals will be impacted at some point in the future, in different ways, at different times and to different extents.

Climate change is one risk amongst many that the Trustee measures, monitors and manages. To this extent, climate change needs to be considered alongside these other risks in a balanced and proportionate way. The Trustee will therefore continue to invest in companies where there is a sufficiently attractive investment case and where the asset manager believes there is an opportunity to engage and influence change in the behaviour and actions of a company.

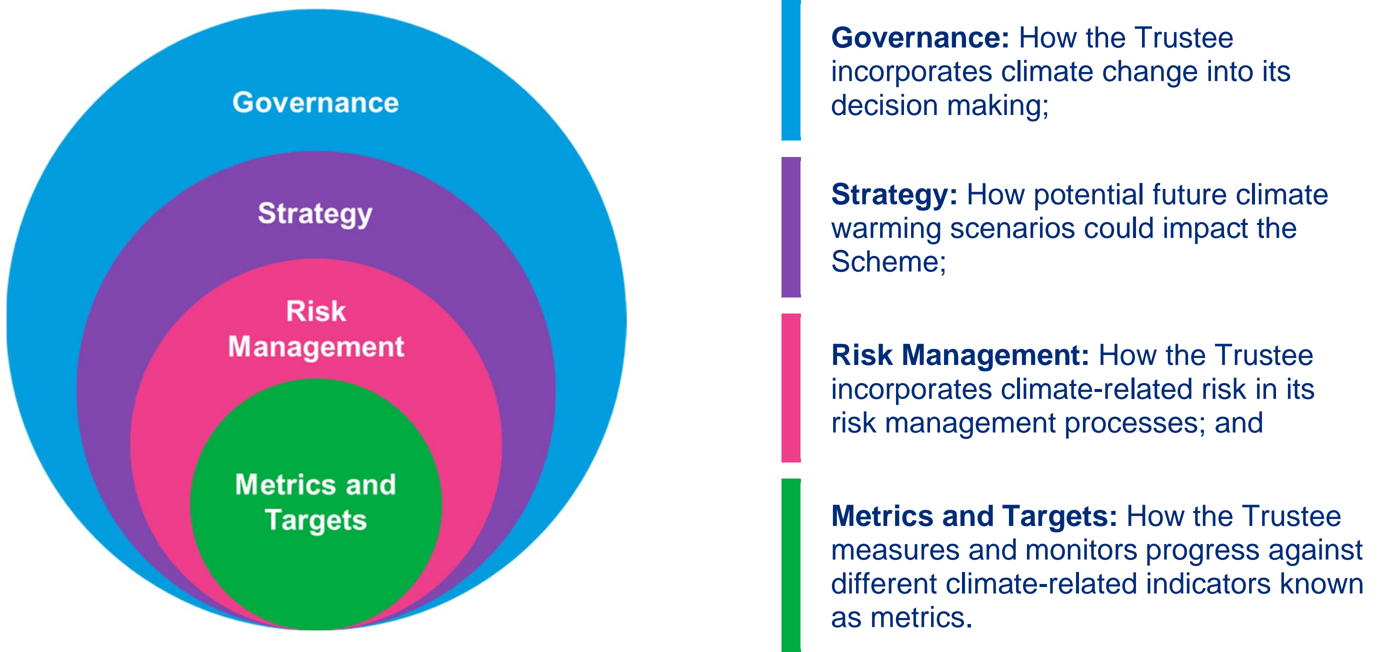
Climate change is complex, both from a scientific perspective and an economic one. With this in mind, the Trustee's assessment of climate-related risks and opportunities has been carried out based on information that is currently available, both in terms of data from the companies and assets in which the Scheme invests, and in consideration of the different global warming scenarios we have analysed. This data is subject to change as climate change reporting improves. During this Scheme year, the Trustee has refreshed the climate scenario modelling to reflect the recent actuarial valuation (DB Section) and investment strategy and manager changes (DC Section). More detail on this

[1] The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 and the Occupational Pension Schemes (Climate Change Governance and Reporting) (Miscellaneous Provisions and Amendments) Regulations 2021

is set out in the Strategy Section. In addition, the report includes Scope 3 emissions for the first time. More detail on this is included in the Metrics and Targets Section.

We are pleased to report continued positive momentum in moving towards the Trustee's emission intensity reduction targets. However, we have been cognisant of the importance of fully understanding and explaining the reason for the change in our climate-related metrics year-on-year. Further details are provided in the Metrics and Targets Section of the report.

Following a short summary of the Investment Arrangements for both the DB and DC Sections, this report focuses on several sections to help members understand:



Governance: How the Trustee incorporates climate change into its decision making;

Strategy: How potential future climate warming scenarios could impact the Scheme;

Risk Management: How the Trustee incorporates climate-related risk in its risk management processes; and

Metrics and Targets: How the Trustee measures and monitors progress against different climate-related indicators known as metrics.

The final section sets out the methodology and assumptions used to produce the information contained in this report, as well as providing some additional background information.

As always, members are encouraged to contact the Trustee if there are comments you wish to raise at wincantonpensions@capita.com.

Dinesh Visavadia, Independent Governance Group,

Chair, Wincanton plc Pension Scheme

Section 2

Investment Arrangements

Summary of Scheme's Assets

This section sets out the Scheme's invested assets and highlights parts of the asset portfolio which are within the scope of climate-change related reporting requirements and therefore considered as part of the scenario analysis and metrics (where available) in this report.

The Scheme provides both defined benefit and defined contribution pension benefits with a total asset size of c£1.3bn/$1.7bn as at 31 December 2023. Members may be invested in the DB Section, DC Section or have benefits in both Sections.

DB Section

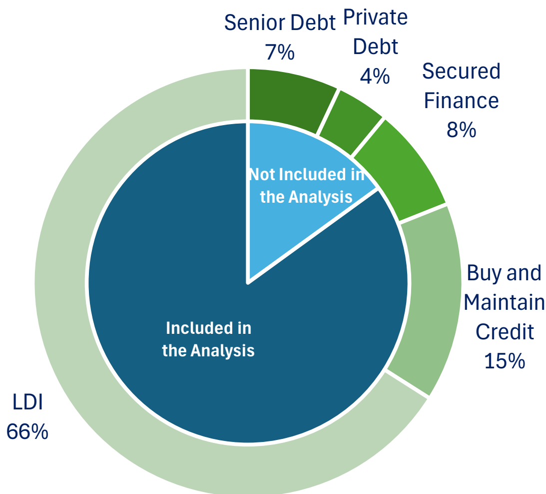


Figure 1: Strategic Asset Allocation of the Scheme's DB Section assets.

The strategic asset allocation of the DB Section is set out in Figure 1.

The majority of the DB Section assets are invested in Mercer Investment Fund 4 ('MIF4'), a bespoke pooled fund which is managed by Mercer Global Investments Europe Limited ('MGIE'), the 'delegated manager'. The Trustee also invests in private debt funds managed by Mercer Investments LLC and Mercer Alternatives (Luxemburg) S.à r.l. Collectively with MIF4, these investments are referred to as the 'Mercer Funds'.

MGIE has overall responsibility for the appointment and monitoring of specialist third party managers for each Mercer Fund's assets. For MIF4, the appointment and termination of managers is agreed in conjunction with the Trustee. More detail on the role and responsibilities of MGIE is set out in the Technical Appendix.

For the DB Section, the Trustee has considered scenario analysis based on the current strategic asset allocation, with a gradual transition to a low risk portfolio by 2030. The Trustee, as far as it is able, has considered metrics for the Scheme's invested assets, excluding private debt (incl. senior), real estate debt and one of the secured finance mandates (due to the availability of data from the investment managers), which equates to coverage of c.82% of total DB Section assets (based on the actual asset allocation as at 31 December 2023).

DC Section

The Scheme's DC investment arrangements are provided by Aegon. The majority of the funds available to members are managed by BlackRock and Legal & General Investment Management Limited – both manage the assets within the Popular Arrangement (which is the Cash at Retirement Lifestyle Option), which makes up 87.7% of the DC Section's assets as at 31 December 2023. The strategy was changed to include greater equity exposure during the year, and a new diversified growth fund manager (LGIM) was appointed.

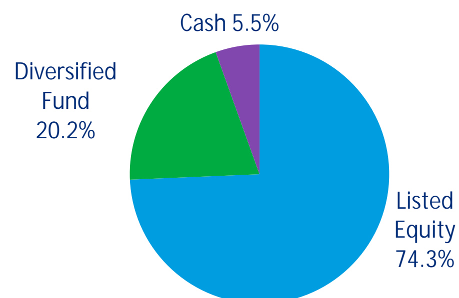


Figure 2: Summary of assets within the Popular Arrangement of the DC Section as at 31 December 2023.

Section 3

Governance

Trustee’s governance approach

The Trustee has ultimate responsibility for ensuring effective governance of climate-related risks and opportunities. The Trustee maintains a Statement of Investment Principles (‘SIP’), which details the key objectives, risks and approach to considering Environmental, Social and Corporate Governance (‘ESG’) factors, such as climate change, as part of its investment decision making. The document is reviewed on at least an annual basis, or following a significant change in investment policy.

The Trustee’s key beliefs on ESG and climate change are:

- ESG factors can have a material impact on investment risks and returns, and contribute to the Scheme’s ability to meeting its investment objectives;
- Stewardship, exercised through voting and engagement, can help to create and preserve long-term value;
- Long-term sustainability issues, particularly climate change, present risks and opportunities that require explicit consideration.

Roles of those undertaking scheme governance activities

The Investment Sub-Committee (‘ISC’) has oversight and decision-making responsibility for setting and implementing the investment strategy for the DB and DC Sections of the Scheme, as prescribed in the Terms of Reference for the ISC. This includes the appointment and ongoing review of investment managers, including the delegated investment manager. ESG and climate related considerations are incorporated into the ISC’s decision making, and ongoing oversight and reporting of these are also the ISC’s responsibility. The ISC meets at least quarterly but will convene additionally on an ad-hoc basis as required.

The key activities and decisions of the ISC are reported to the Trustee board on a quarterly basis. Any decisions requiring Trustee approval will be reviewed and ratified at the quarterly Trustee board meetings.

The roles of the relevant sub-committees and advisors, in relation to the oversight of climate-related risks and opportunities, are summarised in the Technical Appendix.

Assessment of Advisors:

The Trustee expects its advisers to act with integrity and diligence in fulfilling their roles and uses meetings with the advisers to assess and challenge them. Where relevant, this includes discussion of the steps taken by advisers to identify and assess any climate-related risks and opportunities.

The approaches of the DB and DC investment consultants to climate change, and how it is integrated into their advice and services, is assessed as part of the adviser selection and monitoring process. The Trustee sets its investment consultants objectives, including items related to ESG and climate change competency. The investment consultants are formally assessed against these objectives annually. The latest assessment was completed in December 2023, and the investment consultants were found to have met their objectives.

The Trustee also reviews the performance of the Scheme Actuary and Covenant Advisor regularly, including how climate-related risks and opportunities were incorporated into their advice, and how beneficial that advice was in helping the Trustee understand the resilience of the funding strategy and covenant to climate-related risks. The latest assessment found that both the Scheme Actuary and Covenant Advisor had met their objectives.

The ISC and Trustee apply an appropriate level of scrutiny, challenge and discussion to advice relating to climate related risks.

Time and resources spent on climate change-related matters

The Chair of the Trustee is responsible for ensuring that sufficient time is allocated for consideration and discussion of climate matters by the Trustee and its advisers. The Trustee delegates responsibility for some actions in relation to the oversight of climate-related risks and opportunities to the ISC. The ISC, as part of its regular quarterly meeting schedule, allocates agenda time to climate change topics, amongst other ESG topics, to cover the various workstreams listed in the Technical Appendix. The advisers responsible for each workstream will make sure any documents or information is distributed in advance of the meeting to allow the ISC time to digest the advice. The ISC reports back to the Trustee board on its activities on a quarterly basis.

There are a number of workstreams that are to be completed regularly in order for the Trustee to fulfill its responsibility for managing climate risks and opportunities. It is important to note that many of the workstreams will cover wider ESG risks than just climate change risk, as the Trustee does not consider climate risks in isolation, but holistically alongside the various other ESG risks the Scheme may be facing. The full list of workstreams, as well as the frequency with which each task will be carried out, is set out in the Technical Appendix.

Since the last report was produced, the following workstreams were completed by the Trustee:

- Refreshed climate scenario analysis modelling to reflect the 2023 Actuarial Valuation (DB Section) and changes to the glidepath and underlying managers for the Popular Arrangement (DC Section). Conclusions from the Trustee's review and debate of the analysis, and agreed actions, are outlined in the Strategy Section.
- Updated metrics data collected as at 31 December 2023, considering the evolution and underlying drivers of the metrics. The ongoing appropriateness of the metrics was reviewed and confirmed.

- Reviewed the ongoing appropriateness of DB and DC Section carbon intensity reduction targets set the prior year, concluding that the original reasons for choosing the targets remained valid, and thus the targets remained appropriate.
- Assessed progress against DB and DC Section targets and discussed the reasons behind the progress. Conclusions and agreed actions by the Trustee are outlined in the Metrics and Targets Section.
- The existing managers' ESG ratings, provided by the Investment Consultant, and accompanying research views were reviewed. No material developments were noted, leading to a conclusion by the Trustee that no action was required. Emphasis was placed on selecting a manager with strong ESG credentials and climate change policies when the new Diversified Growth Fund manager for the Popular Arrangement was appointed.
- Completed the annual ESG and stewardship review, including a review of voting activity where applicable and of managers' engagements with companies in their portfolios. The Trustee's review is summarised in the annual Implementation Statement (‘IS’).
- Reviewed and challenged managers' latest reports for those managers that are signatories of the UK Stewardship Code.

All of the items above were presented during meaningful timeslots at quarterly ISC meetings, allowing sufficient time for the ISC to raise questions, debate the topic under consideration and ultimately reach a decision where one was required. The discussions were minuted, and the minutes made available to the Trustee, alongside quarterly updates provided by the ISC to the Trustee board.

The Trustee is satisfied that the amount of governance time spent is reasonable and will allocate more time at future meetings if any analysis or wider industry research requires additional Trustee review and consideration.

Training

During the year to 31 March 2024, the Trustee, received training from the Trustee’s Investment Consultant, covering climate-related investment risks and reporting requirements in line with the TCFD recommendations. This included training on:

- MGIE’s approach to stewardship and engagement, and the integration of climate-related risks
- The investment managers’ approach to stewardship and engagement, and the integration of climate-related risks
- Integration of ESG factors within Mercer’s manager research and ratings process
- Refresher training on climate scenario analysis
- Refresher training on climate metrics and targets
- Scope 3 emissions with a focus on the availability of data and format of output
- Updated methodology for sovereign emissions metrics

The Trustee acknowledges that the reporting of climate-related risk is relatively new and the collective experience of the Trustee will grow over time. The Trustee will continue to receive refresher training on climate-related risk as appropriate.

Section 4
Strategy

As a long-term investor, the Trustee recognises the risks and opportunities arising from climate change are diverse and continuously evolving. In relation to climate-related risks, the Trustee believes it is important to understand how the Scheme's exposure to these risks may change over time, when the risk exposure may be greatest and what actions can be taken now, or in the future, to avoid those risks becoming financially material to the Scheme.

To help with this assessment, the Trustee has defined short-, medium- and long-term time horizons for the DB and DC Sections of the Scheme (from the date of analysis as at 31 December 2023).

Defined Benefit Section

Short-Term	Medium-Term	Long-Term
3 years (to 2026)	7 years (to 2030)	27 years (to 2050)
A full actuarial valuation cycle	Approximate timeframe to transition to a low risk portfolio	In line with the expected net zero target timeframe

Defined Contribution Section

<table>
<tr><th>Short-Term</th><th>Medium-Term</th><th>Long-Term</th></tr>
<tr><td>5 years (to 2028)</td><td>20 years (to 2043)</td><td>40 years (to 2063)</td></tr>
<tr><td colspan="3">Timeframes are set to capture potential impact on as broad a range of membership as possible, noting that the lifetime of the DC Section is expected to be longer than the DB Section. The membership profile is similar to the previous year which maintains that the long-term timeframe reflects a member joining at a young age and staying in the strategy for the majority of their working life. The medium-term timeframe reflects the period until the average age member will be deep into the de-risking period in the run-up to expected retirement. The short-term timeframe captures imminent risks and, in some cases, opportunities.</td></tr>
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The Trustee has considered future drivers of risk in relation to climate change:

- Over the next five years, risks may present themselves through rapid market re-pricing relating to climate transition as:
  - Scenario pathways become clearer. For example, a change in the likelihood of a well below 2°C scenario occurring (i.e. an increase in probability would be expected to drive additional transition risk).
  - Market awareness grows. For example, the cost and impacts of the transition suddenly influence market pricing.
  - Policy changes unexpectedly surprise markets. For example, if a carbon price or significant regulatory requirement was introduced across key markets to which the portfolio is exposed, at a sufficiently high price to impact behaviour.
  - Market sentiment is shocked. For example, falls in markets could create a downward spiral where economic sentiment worsens and asset values fall.
  - 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 portfolio.
  - Litigation risk relating to dangerous warming becoming more prevalent.
  - Increases in the energy/heat efficiency of buildings and infrastructure.

  As well as risks associated with these drivers, there could also be opportunities. For example, investing in climate solutions as policy support strengthens, or via investment in strategies that seek to mitigate carbon emissions in the future.

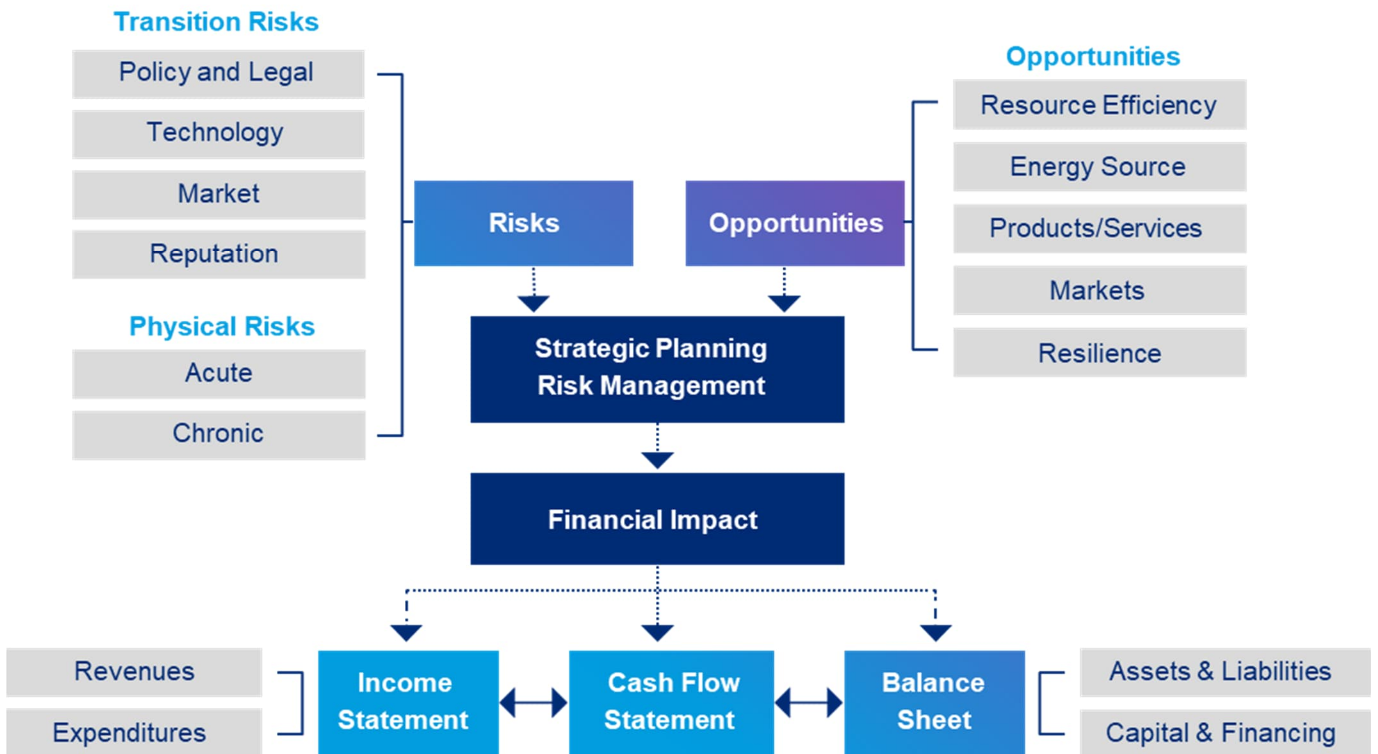
  The Trustee's ability to understand these shorter-term changes can position the Scheme favourably, for example taking advantage of the climate transition by avoiding and reducing investment in high-emitting carbon sensitive businesses/assets that do not have a business plan that supports the transition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

- Looking ahead up to 20 years, risks are likely to be more balanced, reflecting both transition and physical risk. Over this time period the transition pathway will unfold and the level of anticipated physical damage will become much clearer. 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. While the full extent of the physical damage is unlikely to have occurred, markets are likely to be allowing for it to a large degree in asset pricing.

  The Trustee's ability to understand these changes and evolve the portfolios as the pathway develops should help to control risk and potentially enhance returns. The Trustee, and the delegated manager where relevant, may seek to select managers and choose 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 expected to come to the fore and have a more material impact. They will be more relevant for the DC Section, given both the anticipated asset allocation and the longer expected lifetime of the DC Section. This includes the impact of natural catastrophes leading to physical damages through extreme weather events. Availability of resources is expected to become more important if changes in weather patterns (e.g. temperature or precipitation) affect the availability of natural resources such as water. The impact of global heating on productivity, particularly in areas closer to the equator, will also be a key driver. The scenario analysis undertaken by the Trustee attempts to encapsulate the variability here.

Chart 1



Source: TCFD Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures, October 2021

Climate-related risks and opportunities relevant to the Scheme

Having taken into account the DB Section's strategic asset allocation and the DC Section's Popular Arrangement, as set out in the Investment Arrangements Section and the Technical Appendix, the following risks and opportunities have been identified:

- Over the next five years, the Trustee has identified the inter-related risk of climate transition risk and asset repricing risk as being most relevant to the Scheme. Over this time period opportunities are most likely to occur in transition related investment such as climate solutions.
- Over the subsequent 20 years, the Trustee has concluded that both transition risk and physical risk (particularly in the form of asset repricing to allow for future physical damage) could be material.
- Over periods beyond that, the Trustee has identified physical risk as the increasingly key driver of climate-related risk and the risk which will have a more material impact.

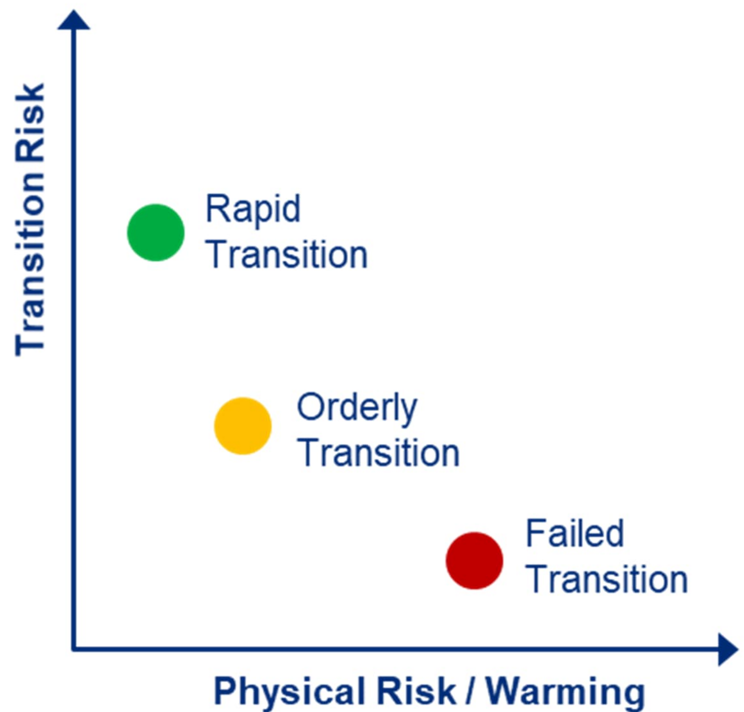
The Trustee has investigated the potential impacts of these risks and opportunities in the scenario analysis that follows. The Trustee notes that the impacts will differ across the DB and DC Sections and that the DC Section is likely to be impacted to a greater extent over longer terms, given the expected investment strategy needed to generate good member outcomes for DC members, and the expected longer lifetime of the DC Section.

Testing the resilience of the investment strategy

Scenario analysis

The Trustee has undertaken climate scenario analysis to the test the resilience of the investment and funding strategy adopted by the Trustee. Quantitative climate change scenario analysis has been undertaken on the Trustee's strategic asset allocation (DB Section) and Popular Arrangement (DC

Section) to assess the potential implications of climate change under three modelled scenarios; a Rapid Transition (1.5°C), an Orderly Transition (less than 2°C) and a Failed Transition (greater than 4°C). The analysis is based on scenarios developed by Mercer working with Ortec Finance. These scenarios were selected by the Trustee to test a broad range of feasible outcomes and the Scheme's exposure to both transition and physical risks.



Source: Mercer

- **Rapid Transition** – Average temperature increase of 1.5°C by 2100 (relative to pre-industrial average). This scenario assumes sudden downward re-pricing across assets in 2025. This could be driven by a change in policy, consideration of stranded assets or expected costs. The shock is partially sentiment driven, and so is followed by a partial recovery. Physical damages are most limited under this scenario.
- **Orderly Transition** – Average temperature increase of less than 2.0°C by 2100. Governments and wider society act in a co-ordinated way to decarbonise and to limit global warming to well below 2°C. Transition impacts do occur but are relatively muted.
- **Failed Transition** – Average temperature increase above 4°C by 2100. The world fails to co-ordinate a transition to a low carbon economy. Physical climate impacts significantly reduce economic productivity and have increasingly negative impacts including from extreme weather events. These are reflected in re-pricing events in the late 2020s and late 2030s.

In designing scenario analysis, a fundamental decision is whether to assume that any climate impacts are priced in today. The analysis in this report is expressed relative to a 'climate-informed' baseline[2]; the implication is that all return impacts are presented in terms of how they are different to what we are assuming is priced in today.

Further detail on climate scenario narratives, including modelling limitations, is included in the Technical Appendix of this report.

Scenario Analysis Results

Defined Benefit Section

The charts overleaf represent the output of the Trustee's quantitative analysis of the investment and funding strategy. The charts represent projections of funding level from an analysis date of 31 December 2023 over a period of 27 years. Projections ignore the impact of any future contributions. Projections assume a linear phased progression from the current asset allocation to the strawman long-term asset

[2] 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**.

allocation (see Technical Appendix for further details) between 2023 and 2030, and then assume the strategy remains static for the rest of the analysis period. Further detail on the underlying asset allocations and limitations associated with climate scenario analysis are set out in the Technical Appendix.

Chart 2 – Funding Level Progression – 3yr and 7yr projection

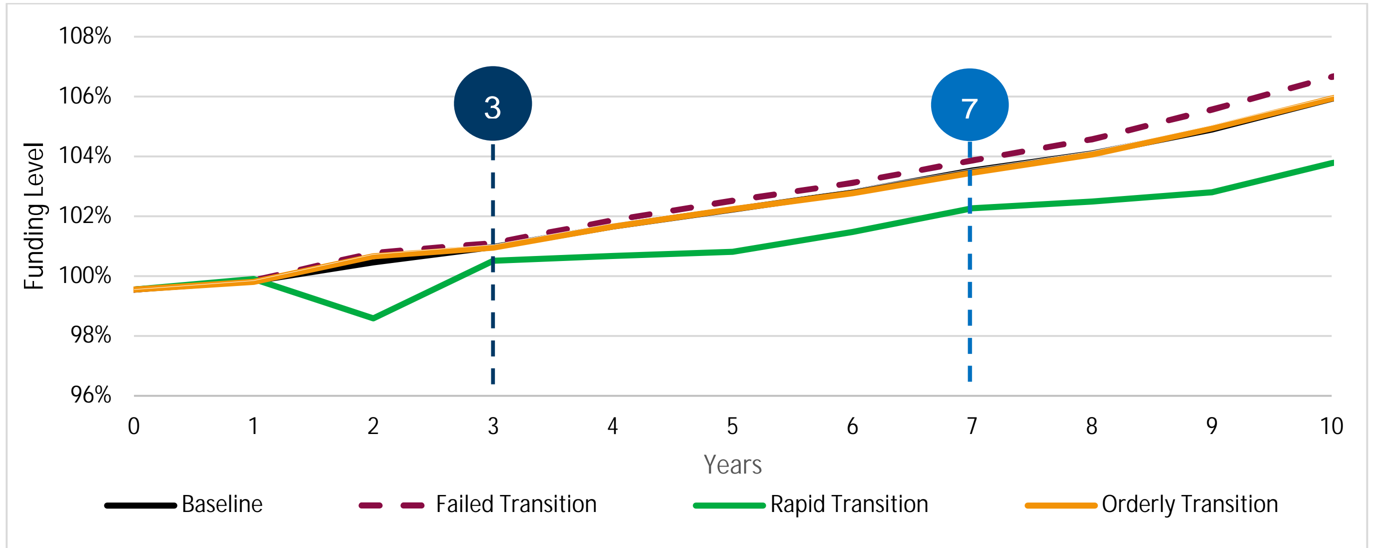
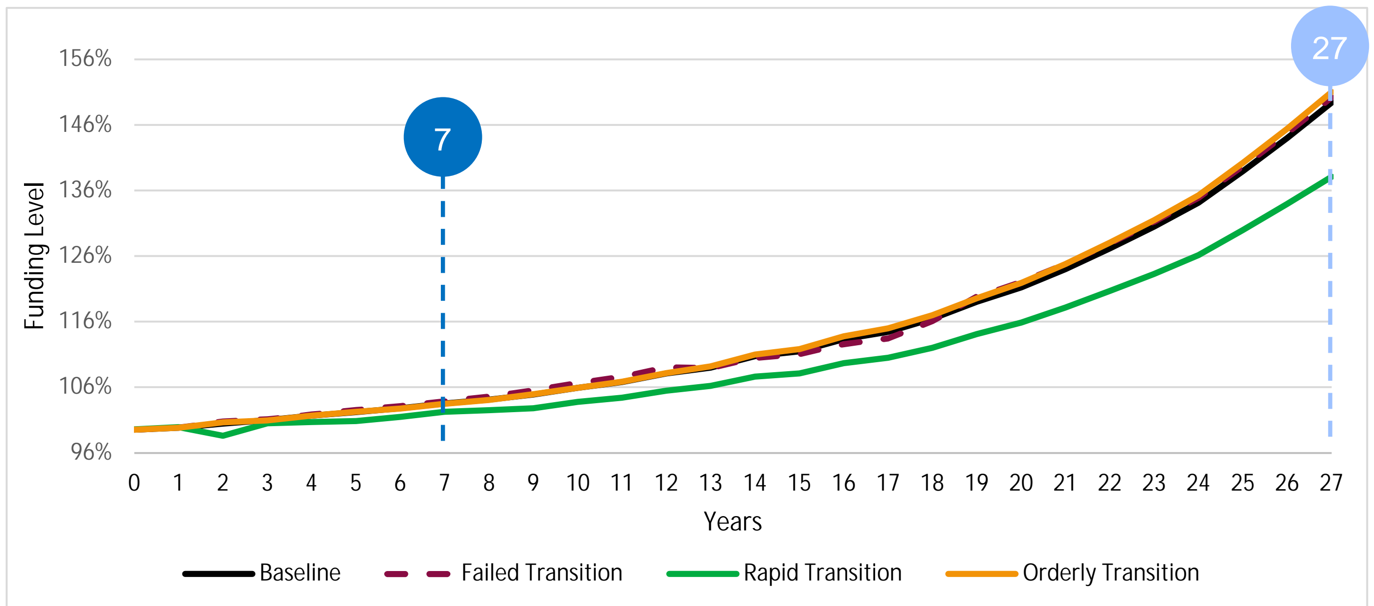


Chart 3 – Funding Level Progression – 27yr projection



Source: Mercer

Table 1: The table below sets out the expected impact on annual investment return for the periods to 2026, 2030 and 2050 across the three scenarios, on the same basis as set out above.

Analysis Results		Per annum return impact to projection horizon
Scenario	**Projection Horizon**	
Rapid Transition (1.5ºC)	2026 (3yrs)	
	2030 (7yrs)	
	2050 (27yrs)	
Orderly Transition (2.0ºC)	2026 (3yrs)	
	2030 (7yrs)	
	2050 (27yrs)	
Failed Transition (4.0ºC)	2026 (3yrs)	
	2030 (7yrs)	
	2050 (27yrs)	

Source: Mercer

Impact on mortality

The Trustee has separately considered, qualitatively, the impact of climate change upon DB Section mortality, and thus on the funding level. In the UK, mortality changes directly due to climate change are not expected to be material in the context of general uncertainty about life expectancy. However, the Trustee notes that, based on input from the Funding Advisor, the indicative impact on life expectancy could be positive for the Rapid Transition scenario, but negative for the Orderly and Failed Transition Scenarios. Negative impact to mortality would, to some extent, offset the negative impact on funding level caused by weaker asset performance under the Orderly and Failed Transition scenarios.

Climate change in respect of the Sponsoring Employer

The Trustee has considered the Sponsor's climate disclosures and taken advice from its Covenant Adviser and concluded that climate change related risks from a covenant perspective are moderate, particularly in relation to the DB Section's funding position and journey plan. This is based on a review of the risks and opportunities identified by Wincanton plc in its 31 March 2024 (FY24) annual report, which includes a categorisation of climate risks by likelihood, time horizon and impact (as a % of future operating income). Wincanton plc's ESG policy aligns to the UN Sustainable Development Goals and its disclosures include the actions being taken to mitigate climate risk and its various targets, including to be net-zero by 2040 for scope 1, 2 and some scope 3 emissions.

As of 29 April 2024, Wincanton plc is now a wholly owned subsidiary of GXO Logistics, Inc., however, the full integration of the businesses will not take place until after the Competition and Markets Authority has concluded its review of the acquisition later in 2024. In future, climate risk and ESG considerations of GXO Logistics, Inc. as well as Wincanton plc, would be considered as part of the Trustee's assessment of climate risk on the Scheme's covenant.

Overview of analysis

In light of the above analysis for the DB Section, the Trustee reached the following conclusions:

Short-Term (3 years)	Over the short-term, transition risk dominates, with the Rapid Transition having the biggest impact. An initial fall in asset returns in 2025 (relative to baseline) is driven by a transition shock impacting the economy and investment markets, causing losses. This could be driven by unprecedented policy action, with markets initially overreacting before partially recovering. The actual timing of any shock or recovery is uncertain. The funding level in year 3 is projected to reduce by c0.5% relative to baseline. However, given the funding level is expected to remain over 100%, the Trustee considers this a relatively minor impact.
Medium-Term (7 years)	Over the medium-term, the Rapid Transition is again the most impactful scenario. Much of the impact is driven by credit spreads widening as a result of the transition shock in 2025. While spreads are expected to tighten again with time, which should drive a recovery in the funding level back towards baseline, under the de-risking pathway modelled, illiquid credit is running off and Secured Finance is being sold in favour of Investment Grade Credit, and thus the full expected market recovery isn't captured by the Scheme's assets. In practice, if the Scheme did experience a transition shock, the Trustee would factor this into the actual de-risking pathway to minimise the impact on the funding level. However, a more extreme scenario to that modelled where defaults occur, and recovery rates are low, should not be discounted, and was considered by the Trustee. The Failed and Orderly Transition pathways are marginally positive relative to baseline over the medium-term due to a transition shock not materialising.
Long-Term (27 years)	Under the modelled scenarios, the Scheme never fully recovers from the transition shock in 2025, and thus the Rapid Transition remains the most impactful scenario by 2050. However, although the projected funding level is reduced by c11% versus baseline, the Scheme remains very comfortably funded (c138%), and thus the Trustee is not materially concerned about the impact of this scenario materialising. In the wider environment, physical impacts are expected to have become significant. However, given the low risk investment strategy relative to liabilities, these physical impacts are expected to have little impact on funding level progression.
Summary and Conclusion	Fixed income asset classes are generally less exposed to transition and physical risks compared to other assets classes such as equities. Hence, the DB Section is well positioned from a climate risk perspective under all modelled scenarios due to the de-risking undertaken to date. The exposure to a transition risk shock has been noted by the Trustee. However, as the expected short-term impact is muted and the funding level is expected to remain over 100%, the Trustee is not planning any investment strategy or funding changes to protect against this risk. If a Rapid Transition scenario does materialise, the Trustee will revisit the planned de-risking pathway to consider if adjustments are needed to allow the Scheme to participate in any expected

market recovery and limit a longer-term impact of the initial shock. Additionally, the Trustee has a contingent funding strategy in place to mitigate against falling funding levels.

The DB Section is expected to remain well funded in the event of both the Orderly and Failed Transition scenarios. Hence, the Trustee has no immediate plans to adjust the investment strategy or funding approach in light of the risks of these eventualities. However, the Trustee is mindful of the limitations of modelling complex systems, and of the significant impact a Failed Transition would have on the world as a whole. Hence, the risks will continue to be kept under review as the long-term future of the DB Section becomes clearer and more clarity emerges of the likely transition pathway. Additionally, if more sustainable investment opportunities within fixed income become available, the Trustee will consider their appropriateness.

The funding level scenario analysis above takes into account the impact of interest rates and inflation expectations upon the value of the liabilities. Realised inflation is expected to be elevated under the Rapid Transition, resulting from damages to agriculture and change in food prices, increasing the value of benefits with inflation-linked increases. However, these impacts are largely hedged by the Scheme's material allocation to Liability Driven Investment ('LDI') holdings.

The analysis does not explicitly take into account the impact of changes to mortality. However, the Trustee is mindful that the potential negative impact on life expectancy of a Failed Transition could offset, to some extent, the impact of weaker asset performance on the funding level.

Climate impacts are naturally sector specific. Sector level analysis has highlighted that differences in return impact are most visible at an industry-sector level, with significant divergence between scenarios. Oil & gas, fossil fuel based utilities and renewables are the sectors most impacted by the transition, with the outcome for those sectors dependent on the type of transition. The Trustee is mindful of the need for investors to support industries which are critical to the real world economy on their transition journey. Hence, the Trustee has, and will continue to, engage with the credit managers to gain a deeper understanding of the portfolio holdings in these industries and the expected transition pathways of those businesses, before considering any portfolio restrictions or exclusions.

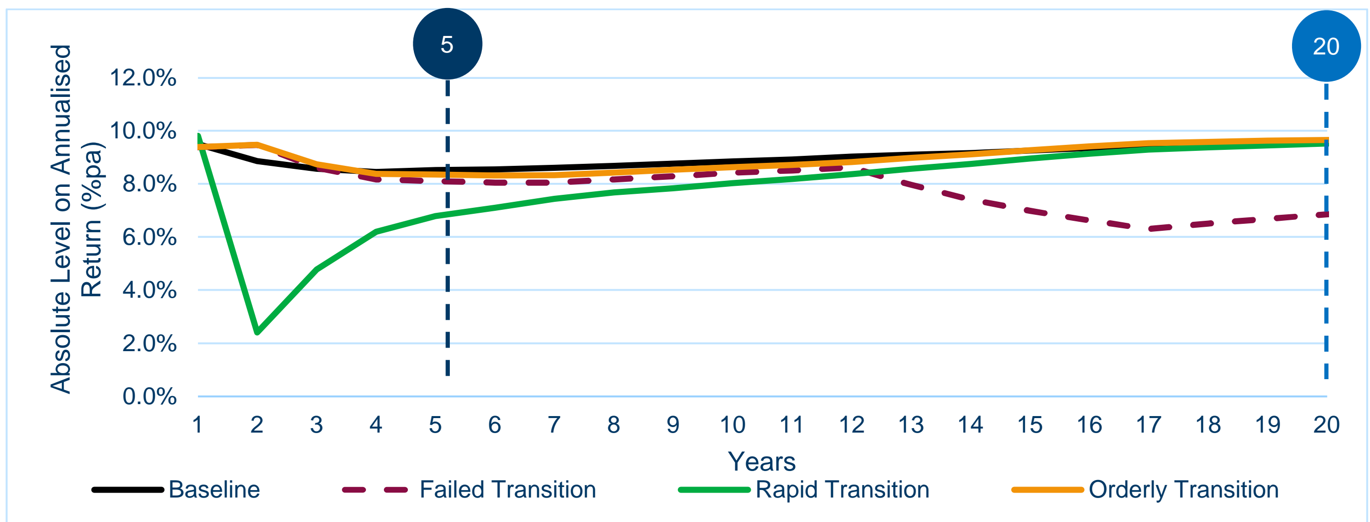
Defined Contribution Section

The charts below represent the output of the Trustee's quantitative analysis of the DC Section's Popular Arrangement – the Cash at Retirement Lifestyle Option. They reflect the impact on future expected returns from an analysis date of 31 December 2023 over a period of 40 years and reflect a younger members' potential experience. Analysis on the following member cohorts was undertaken:

a) New member with a 40 year glidepath to retirement.
b) Member with a 20 year glidepath to retirement, which is broadly the average time to retirement
c) Member with a 5 year glidepath to retirement.

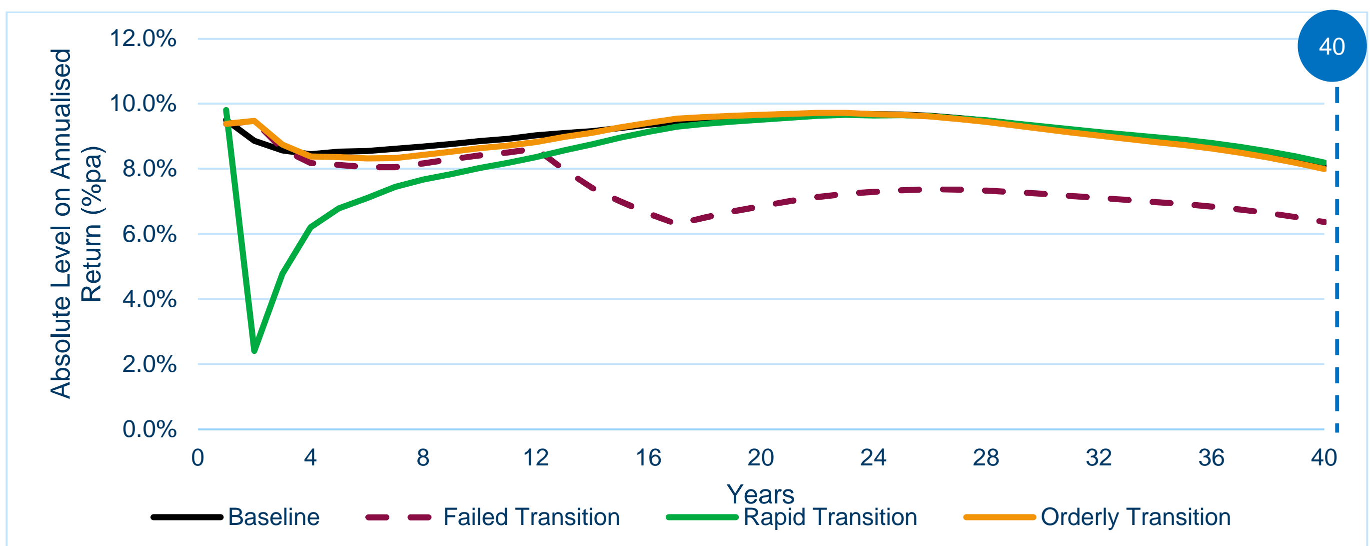
Further detail on the underlying asset allocations and limitations associated with climate scenario analysis are set out in the Technical Appendix.

Chart 4 – Portfolio Allocation – 5yr and 20yr projection



Source: Mercer

Chart 5 – Portfolio Allocation – 40 yr projection



Source: Mercer

Table 2: The table below sets out the expected impact on annual investment return and pot values for the three scenarios and three projection horizons. The assessment focuses on a young member who would be invested throughout the full term of the strategy.

Analysis Results		Projected member pot value impact, based on £100 starting value
Scenario	**Projection Horizon**	
Rapid Transition (1.5ºC)	5 years (2028)	-£12
	20 years (2043)	-£9
	40 years (2063)	+£70
Orderly Transition (2.0ºC)	5 years (2028)	-£1
	20 years (2043)	+£7
	40 years (2063)	-£88
Failed Transition (4.0ºC)	5 years (2028)	-£3
	20 years (2043)	-£248
	40 years (2063)	-£1,078

Source: Mercer

Overview of analysis

The drivers for the changes in projected asset values, and the associated impacts over the short-, medium- and long-term are similar to those shown for the DB Section above. The table below focuses on quantifying the impacts for the DC Section.

Short-Term (5 years)	Over the short term, equities are expected to be adversely impacted under a Failed Transition, with modest but negative returns over the short term. Other asset classes, such as bonds, cash and property, are expected to see some negative impact. In a Rapid Transition scenario, equity returns are expected to fall materially, due to the uncertainty created by timing and speed of changes and the expected responsiveness from markets to the changes This shock under a Rapid Transition translates into a reduction of 1.7% p.a. in return for the portfolio versus baseline for members who are 40 years from retirement. Those within 5 years of retirement will experience a lower impact in % terms but where members will have higher pot sizes.
Medium-Term (20 years)	By year 20, physical risks are increasingly priced in and will have a greater impact on the DC Section, reflecting the long-term investment in equities and other assets that are required to provide long-term real growth. The projected impact of the Failed Transition is a fall of -2.7%p.a. in returns relative to the baseline for a

	member who is 40 years from retirement and -1.8% p.a. for someone 20 years from retirement. An Orderly Transition is expected to have a small positive impact, with gains in return of 0.1% p.a. relative to the baseline.
Long-Term (40 years)	Over the long term, physical impacts become significant and very material for the DC Section, with the Failed Transition resulting in a 1.6% p.a. reduction in return relative to the baseline. Over the full 40 years, an Orderly Transition remains critical to achieving good member outcomes, with a projected fall in return of 0.1% p.a. compared to the baseline under this scenario. This focuses on younger members of the Scheme who will experience the full cycle of the Popular Arrangement. The main driver for these changes is the exposure to equities, and other growth assets, that are expected to provide long-term real growth but are the most exposed to the outcomes from the physical impacts. Not all of the impacts will be negative as there will be opportunities that will benefit investors as part of the transition. The projections reflect the net effect.
Summary and Conclusion	The DC Section is, and will continue to be, more exposed to the failure of achieving an Orderly Transition over the short- and longer- term, compared to the DB Section, due to the differences in the types of asset classes between the two. The DC Section will have long-term exposure to equities, directly and possibly via the DGF manager, as well as other growth type assets, which will cause member outcomes to be materially affected under a Failed Transition over the long-term. The Trustee considers climate change risks amongst other risks when setting and reviewing the overall investment strategy and asset allocation. The Trustee also engages with the managers to gain a deeper understanding of the portfolios, and how risk within the current portfolios can be mitigated. The Trustee will be considering the integration of sustainable investment themes, including climate change, within the fund options available to members. A review of these options is scheduled for the next Scheme year. . .

Section 5

Risk Management

A key part of the Trustee's role is to understand and manage risks that could have a financially material impact on both the Scheme's investments and the wider funding position. Climate change is one of the risks that the Trustee considers, alongside other financially material risks that may impact outcomes for members.

This section summarises the primary climate-related risk management processes and activities of the Trustee. These help the Trustee understand the materiality of climate-related risks, both in absolute terms and relative to other risks that the Scheme is exposed to. The Trustee prioritises the management of risks primarily based on its potential impact on the security of members' benefits/prospective investment returns.

Governance

- The Trustee's Statement of Investment Principles is reviewed on an annual basis and sets out how investment climate-related risks are managed and monitored.
- The Trustee maintains a risk register which includes explicit climate risks (covering all of the Scheme) to monitor and mitigate financially material risks to the Scheme. The climate-related risks (defined as physical risks and transition risks) are reviewed annually by the Trustee to ensure the assessment of the likelihood and impact continue to remain appropriate for the Scheme, given the developing research and understanding on this subject, as well as new and emerging risks related to climate change.
- The Trustee will receive training from time-to-time on climate-related issues. The training allows the Trustee to challenge whether the risks and opportunities are effectively allowed for in its governance processes and wider activities, and to be able to challenge its advisers to ensure the governance support and advice adequately covers the consideration of climate-related risks and opportunities. This process also affords the Trustee an opportunity to identify new and emerging risks related to climate change. The training completed over the Scheme year is summarised in the Governance Section of the report.

- The Trustee maintains an ESG Implementation Plan, which is reviewed on a quarterly basis. This document forms part of the Trustee's wider business plan and summarises the progress, actions and outcomes of scheduled ESG investment integration projects, including climate-related activities.
- Mercer's Responsible Investment Total Evaluation ('RITE') assesses and benchmarks the extent to which pension schemes integrate ESG factors on an annual basis. The Trustee incorporates recommendations from the RITE assessment framework into its ESG Implementation Plan, and will monitor the Scheme's position over time, seeking to follow best practice.

Strategy

- The Trustee recognises that long-term sustainability issues, particularly climate change, present risks and opportunities that require explicit consideration.
- The Scheme's advisors will take climate-related risks and opportunities into account as part of the wider strategic investment advice provided to the ISC. This includes highlighting the expected change in climate-risk exposure through proposed asset allocation changes, both from the top-down level (via climate scenario analysis) and bottom-up (via climate-related metrics). The Trustee has taken action over the year to improve expected member outcomes by pursuing higher expected returns with greater reliance on equity market returns, at the expense of the DGF exposure. This change also provides greater scope for engagement in relation to climate risk.
- Climate scenario analysis is the primary tool to help the Trustee understand the materiality of climate-related risks that could impact the Scheme over time. It will be reviewed at least triennially, or more frequently if there has been a material change to the strategic asset allocation and/or the Popular Arrangements or improvements in methodology. Key findings from the Trustee's latest climate scenario analysis are set out in the previous section.
- The impact of climate-related risks and opportunities is an input into regular employer covenant updates.

Stewardship and Reporting

- The Trustee will receive annual reports of climate-related metrics and progress against targets in respect of the assets held in the Scheme. The Trustee may use the information to engage with the investment managers, including the delegated investment manager.
- The Trustee believes that good stewardship and ESG issues can have a material impact on investment risk and return outcomes, so they are a key area of focus.
- Climate change is one of the delegated investment manager's engagement priorities, and within the Mercer Funds, the third party managers' engagement activities are expected to reflect this. Additionally, the third party investment managers are expected to strongly encourage holding companies to improve on material ESG issues and provide better disclosures.
- Within MIF4, the third party managers are required to partake in an annual engagement survey from the delegated investment manager, which includes a specific section covering how the manager is assessing and addressing climate risks and opportunities. Inputs from this survey are used to populate the delegated investment manager's engagement trackers, which are in turn used to identify goal-orientated engagement priorities and to monitor engagement activities and outcomes to identify where escalations may be required. The delegated investment manager's portfolio management team meet regularly with the third party managers and any material ESG issues, including climate change, that have been identified, and the delegated manager's expectations in respect of those, are discussed.

- Appointed investment managers are expected to use active ownership to protect long-term shareholder value.
- The Trustee receives voting and engagement activity summaries on an annual basis as part of the preparation of the IS from the directly appointed managers and the delegated investment manager. The IS summarises how the investment managers have voted and engaged on climate-related issues (among other key engagement priorities). The IS is available on the Scheme's website. The Trustee may also use the information to engage with the investment managers, including the delegated investment manager.
- Over the Scheme year, the Trustee engaged with the DB Section credit managers (PGIM and Insight, which account for 15% of the portfolio) to discuss the decarbonisation targets the Trustee has set for those mandates, and the Trustee's expectations as to the managers' roles in achieving the targets. Further engagement on specific portfolio holdings is planned for the coming Scheme year.
- The Trustee has reviewed the annual stewardship report provided by BlackRock and has established its position on what constitutes a significant vote for the equity portfolio in the main. Examples of the actions taken on significant votes has been documented in the IS. Further engagement on specific portfolio holdings in the equity and DGF portfolios is planned for the coming Scheme year.
- Where the managers are signatories to the UK Stewardship Code, the ISC reviews their stewardship reports on an annual basis.

Manager Selection and Retention

- For DC Section assets, and for DB Section assets held outside of Mercer Funds, the Trustee, with advice from Mercer in its role as Investment Consultant, will consider an investment manager's firm-wide and strategy-specific approach to managing climate-related risks and opportunities when either appointing a new manager, in the ongoing review of a manager's appointment, or as a factor when considering the termination of a manager's appointment. When LGIM was selected as the DGF manager, the Trustee considered how robust their process was in relation to investing sustainably, and the depth of their engagement with the companies in which they invest, including on their positions on managing a climate transition.
- The delegated investment manager is ultimately responsible for the selection, appointment, removal and monitoring of third party investment managers in the Mercer Funds. The expectation is that climate-related risk assessment and risk reduction is integrated into each manager's approach to investment decision making and stewardship activities. The delegated investment manager works closely with the appointed third party managers to improve their ESG and climate change integration practices where required.
- Mercer rates investment managers on the extent of integration of ESG factors (including climate change) into their processes. A manager's stewardship process forms part of the rating assessment. This is considered at the firm level and at the investment strategy/fund level. The Mercer ratings for all DC and DB Section assets are presented in quarterly investment performance reports and are reviewed by the ISC. A downgraded ESG rating will lead to the investment manager being the subject of closer scrutiny. The delegated investment manager also utilises these ratings and associated analysis to evaluate manager capabilities and practices.
- A more detailed review of asset manager integration of ESG factors (including climate change) is carried out annually by the ISC.

Section 6

Metrics and Targets

Metrics

The Trustee has chosen to present climate-related metrics across four different categories in this report. The climate-related metrics help the Trustee to understand the climate-related risk exposures and opportunities associated with the Scheme's investment portfolio and identify areas for further risk management, including investment manager portfolio monitoring, voting and engagement activity and priorities. The metrics in this report relate to the Scheme's financed emissions only and exclude emissions associated with the operation of the Scheme. The following metrics are provided in this report:

Metric category	Selected metric	Further detail
Absolute emissions	Total Greenhouse Gas Emissions	Tonnes of carbon dioxide and equivalents (tCO2e) that the Scheme is responsible for financing.
Emissions intensity	Carbon Footprint	The amount of carbon dioxide and equivalents (tCO2e) emitted per million dollars of the Scheme's investments.
	Weighted Average Carbon Intensity (WACI)	The exposure of the Scheme to carbon-intensive companies, measuring the amount of carbon dioxide and equivalents (tCO2e) emitted per million dollars of holding company / issuer revenue[3] on average.
Portfolio Alignment	Implied Temperature Rise ITR)	A forward-looking assessment of how aligned the Scheme's portfolios are relative to the Paris Agreement's 1.5°C target. This is estimated based on the activities and decarbonisation targets of portfolio companies / issuers, relative to what global decarbonisation needs to be to achieve 1.5°C.
Additional	Data Quality	Represents the proportions of the portfolio for which the Trustee has high quality data.

[3] For sovereign bonds, Greenhouse Gas Emissions are expressed relative to Purchasing Power Parity adjusted Gross Domestic Product (PPP-adjusted GDP) for production based emissions and per capita for consumption based emissions, in line with the Partnership for Carbon Accounting of Financials guidance (PCAF).

The metrics presented in this report are as at 31 December 2023 and are based on the actual asset allocation at that date.

The metrics in this report relate to the Scheme's financed emissions only and exclude emissions associated with the operation of the Scheme. This report covers Scope 1, 2 and 3 emissions, which are defined as follows for corporate mandates:

- **Scope 1 "direct" emissions**: those from sources owned or controlled by the Company (e.g. direct combustion of fuel from vehicles); and
- **Scope 2 "indirect" emissions**: those caused by the generation of energy (e.g. electricity) purchased by the Company.
- **Scope 3 "indirect" emissions**: In this category go all the emissions associated, not with the company itself, but that occur in the value chain of the reporting company.

For sovereign emissions, the emissions are defined as those that relate to production (scope 1) and consumption (scope 1, 2 and 3 minus exported emissions) in line with the PCAF guidance.

- **Production emissions:** those attributable to emissions produced domestically and include domestic consumption and exports; and
- **Consumption emissions:** these include production emissions, minus exported emissions, plus imported emissions (emissions related to energy and non-energy imports from goods or services from outside the country territory as a result of activities taken place in the country territory).

The Trustee recognises the challenges associated with various metrics, tools and modelling techniques used to assess climate change risks. The Trustee aims to work with its investment consultant and investment managers to continuously improve the approach to assessing and managing risks over time as more data becomes available. The Technical Appendix of this report sets out further information on each metric along with the data limitations and assumptions used in collating these metrics.

Defined Benefit Section

The regulations require trustees to calculate and report metrics for all assets 'as far as they are able'.

This report presents direct analysis of:

- The aggregate credit portfolio comprising the Scheme's two buy & maintain credit funds managed by Insight and PGIM, respectively.
- One of the Scheme's two secured finance funds, managed by Insight.
- The Scheme's LDI mandate, managed by BlackRock.

The above assets comprise 85% of the Scheme's total DB assets by strategic asset allocation (82% as at the date of analysis based on the actual asset allocation).

The report does not present analysis of the Scheme's secured finance fund investment managed by Schroders nor the Scheme's illiquid debt (private debt and real estate debt) mandates managed by Mercer, Aviva and M&G, which together comprise the residual 15% of the strategic asset allocation, due to issues with data quality and coverage. It is very challenging to calculate metrics for illiquid debt mandates and it is not expected they will be included in the analysis in the foreseeable future.

Climate-related metrics for the funds analysed, with the exception of BlackRock LDI portfolio have been provided by the delegated investment manager. The metrics have been sourced from MSCI using stock list data provided by the underlying investment managers. For the LDI mandate, metrics have been provided by BlackRock.

Table 3: This table below summarises the emissions and ITR climate metrics for the funds selected for analysis (81.6% of portfolio):

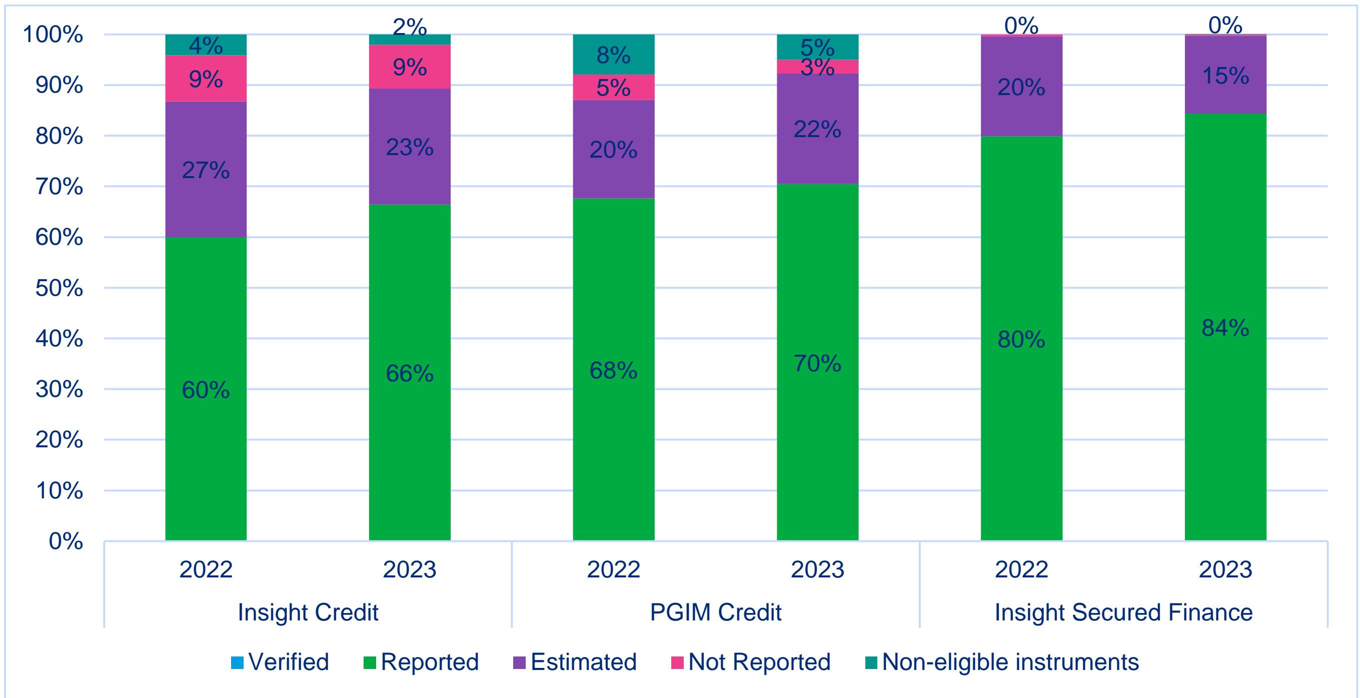
Manager/ Mandate	Total assets ($m)	% of DB Assets	WACI Scope 1 + 2			Carbon Footprint Scope 1 + 2			Absolute Emissions Scope 1 + 2			Implied Temperature Rise	
			Coverage	(tons CO2e / $m revenue)	% Change from 31 Dec 2022	Coverage	(tons CO2e / $m invested)	% Change from 31 Dec 2022	Coverage	(tons CO2e)	% Change from 31 Dec 2022	(ºC)	% Change from 31 Dec 2022
Insight Buy & Maintain	100.9	9.1%	91.2%	78.4	-21%	58.3%	31.2	-12%	58.3%	3,112	-19%	1.9	-
PGIM Buy & Maintain	101.4	9.1%	97.2%	205.7	-4%	70.7%	54.2	5%	70.7%	5,528	-2%	1.9	-14%
Total Buy & Maintain Credit	**202.3**	**18.2%**	**94.2%**	**142.2**	-9%	**64.5%**	**42.7**	-2%	**64.5%**	**8,640**	-9%	**1.9**	-7%
Insight Secured Finance	68.1	6.1%	99.8%	134.2	-19%	99.6%	59.0	-6%	99.6%	4,020	-8%	2.5	-11%

Manager/ Mandate	Total assets ($m)	% of DB Assets	Coverage	WACI		Carbon Footprint		Absolute Emissions	
				Scope 3 Upstream[1]	Scope 3 Downstream[1]	Scope 3 Upstream[1]	Scope 3 Downstream[1]	Scope 3 Upstream[1]	Scope 3 Downstream[1]
				(tons CO2e / $m revenue)		(tons CO2e / $m invested)		(tons CO2e)	
Insight Buy & Maintain	100.9	9.1%	63.7%	213.7	225.6	106.7	211.8	10,766	21,374
PGIM Buy & Maintain	101.4	9.1%	63.5%	226.5	253.4	82.4	134.3	8,354	13,614
Total Buy & Maintain Credit	**202.3**	**18.2%**	**63.6%**	**220.1**	**239.5**	**94.5**	**173.0**	**19,119**	**34,988**
Insight Secured Finance	68.1	6.1%	74.0%	251.3	460.3	100.9	256.2	6,875	17,453

Manager/ Mandate	Total assets ($m)	% of DB Assets	Coverage	Emissions Intensity		Absolute Emissions		Implied Temperature Rise
				Production GHG Intensity	Consumption GHG per Capita	Production Emissions	Consumption Emissions	
				(tons CO2e / $m PPP-Adjusted GDP)	(tons CO2e / capita)	(tons CO2e)		(ºC)
BlackRock LDI	636.8	57.3%	100.0%	120.6	9.2	114,477	159,213	2.8

Source: MSCI ESG Data, Mercer Calculations and BlackRock (for LDI). The figures in this analysis have been pro-rated at individual manager level (where reasonable data is available) to present coverage as if full data were available, with the exception of the LDI portfolio. For assumptions and notes relating to the LDI metrics, please refer to the Technical Appendix – Liability Hedging Portfolio section.

Chart 6: The Data Quality metric for the funds analysed

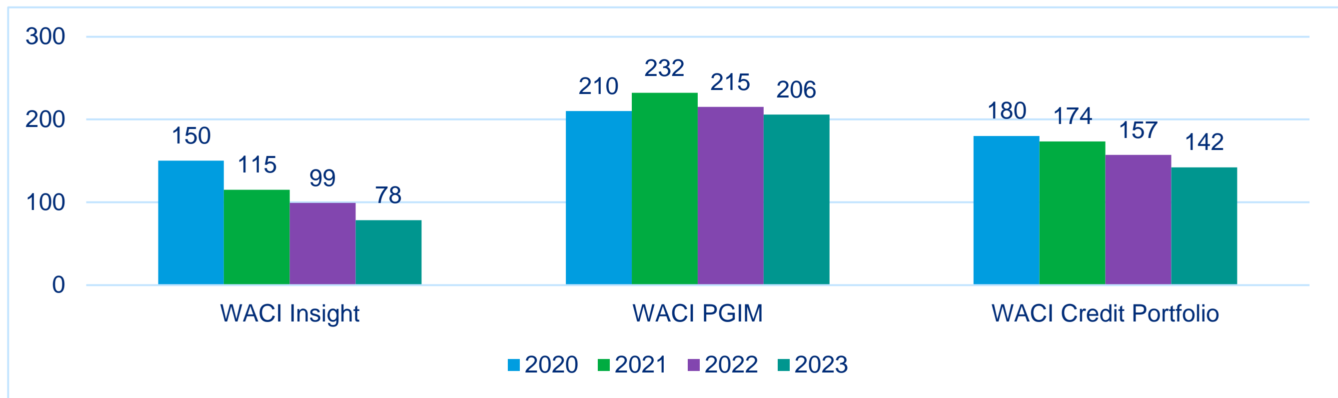


Source: MSCI, Mercer Calculations.

The chart below shows the evolution over time of the carbon intensity (WACI) for the aggregate buy and maintain credit portfolio (and underlying managers) since the base year (2020). This portfolio is subject to a target for monitoring purposes, as outlined later in this report.

Chart 7: WACI (tons CO2e / $m revenue) progression

WACI (tons of C02e /$M revenue)



The Trustee makes the following observations:

- The largest asset allocation in the DB Section is the LDI mandate and this is also the materially largest contributor to the DB Section's total carbon emissions. These hedging assets provide protection against changes in interest rates and inflation and therefore the Trustee expects the allocation to these assets to be maintained over time.
- Since the last TCFD report there has been much discussion on how best to report on sovereign carbon emissions. Many of the metrics used to report Carbon intensity and Carbon footprints

were designed with equity or corporate bond emissions in mind, where companies had clear revenues or enterprise values. This did not map well to the sovereign space. As a result, a wide range of metrics were being used. Consensus has now formed, with both PCAF and the Institutional Investors Group on Climate Change ("IIGCC") agreeing that the optimal metrics to use for sovereign emissions reporting are a production emissions metric footed to GDP adjusted for PPP and consumption emissions footed to the population of the country where the emissions are consumed. The Trustee has adopted this approach within this report.

- Focusing on the WACI intensity measure for Scope 1 and 2 emissions, the highest intensity fund is the PGIM buy & maintain credit fund, which is more than twice as carbon intense as the Insight buy & maintain credit fund currently. All else equal, this implies that the businesses, in aggregate, issuing the bonds held in the PGIM portfolio are relatively less carbon efficient as at the date of analysis. This is primarily driven by PGIM's higher allocation to utilities, which are traditionally high carbon emitters.
- The 2015 Paris Agreement objectives reflect a collective goal to hold the increase in the climate's average global surface temperature to well below 2ºC above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 ºC. None of the portfolios are currently aligned with a 1.5ºC pathway. The Trustee acknowledges that such alignment is very difficult to achieve currently within credit portfolios without compromising wider investment considerations such as diversification and credit quality.
- The LDI mandate consists mainly of UK government debt and the 2.8ºC ITR of that portfolio reflects the UK Government's progress towards its net zero commitments and global temperature goals.
- Insight's positioning is indicative of the significant steps the manager has taken over the past few years to decarbonise the portfolio, with WACI reducing c48% since 2020, and c21% since last year. However, it is noted that this was partially driven by a denominator effect (higher inflation led to higher revenues) rather than lower carbon intensity. In comparison, Insight's carbon footprint fell by 12% since last year.
- While PGIM have made only minor progress with reducing WACI in the period under observation, the highest emitters are concentrated in a small portion of the portfolio, and thus improvements could be achieved with targeted sales, if desired. The Trustee is exploring the transition pathways of these businesses with PGIM before deciding on any exclusions or targeted disinvestments. The Trustee has noted that the carbon footprint of the PGIM portfolio rose over the Scheme year and is engaging with PGIM to understand the drivers of this.
- In terms of the data quality metric, the Insight secured finance fund ranks highest with the bulk of its constituent firms reporting emissions data and only approximately 15% requiring estimation by the data provider. Data quality is relatively weaker for the buy & maintain credit funds where the proportions of emissions data that is estimated or not reported is generally higher. Both managers are working with issuers to improve this, and there has been an increase in the percentage reported since last year for both portfolios. Note that for the Scope 3 emissions metrics, the data used throughout is 100% estimated due to the poor quality/availability of Scope 3 data.
- This is the first report where Scope 3 emissions have been included. The Trustee will use this data as a base and review and analyse relative progress in future reports.

Defined Contribution Section

The regulations require trustees to calculate and report metrics for all assets 'as far as they are able' to all popular arrangements

This report presents direct analysis of the only popular arrangement, which is the Cash at Retirement Lifestyle Option. For this arrangement:

- The equity and diversified growth fund mandates are managed by BlackRock and LGIM, respectively. BlackRock also manages the allocation to cash through its Sterling Liquidity Fund.

The above assets comprised c. 94% of the Scheme's total DC assets as at the analysis date (of which 84% is eligible data and is reportable). The other 6% of total assets are held in a range of self-select funds. These have been excluded from the analysis as they do not constitute a Popular Arrangement and are not material in the context of overall risk for the DC Section.

Table 4: Summary of the emissions and ITR climate metrics for the funds analysed:

Non-sovereign bond assets – Scope 1 and 2 emissions

Manager / Mandate	Total assets ($m) [(a)]	% of DC Assets [(a)]	Carbon Footprint (Scope 1+ 2)		WACI (Scope 1+2)		Absolute Emissions (Scope 1+ 2)		ITR
			(tons CO2e / $m invested)	Coverage (%)	(tons CO2e / $m revenue)	Coverage (%)	(tons CO2e)	Coverage (%)	(ºC)
BlackRock 30/70 Global Equity	353.1	71.0	57.7	99.1	113.8	99.0	20,409	99.1	2.4
Legal & General Diversified (Equity and Corporate Bonds)	68.2	13.9	69.4	89.4	177.3	83.4	4,732	89.4	2.4
Total (Non-Sovereign Component, excluding Cash Fund)	**421.3**	**84.9**	**59.6**	**97.5**	**124.0**	**98.2**	**25,142**	**97.5**	**2.4**
BlackRock Cash	26.1	6.1	0.9	-	4.1	-	23	-	-
Total (Non-Sovereign Component)	**447.4**	**91.0**	**-**	**97.5**		**98.2**	**25,165**	**97.5**	**-**

***Source**: MSCI, Mercer calculations and investment managers as at 31 December 2023. Asset value data provided by Aegon as at 31 December 2023. Totals may not sum due to rounding*

*(a) The figures represent the amount and proportion of DC assets for which **eligible data is reportable.***

Sovereign bond assets

Manager / Mandate	Total assets ($m) [a]	% of DC Assets [a]	Coverage	Sovereign Carbon Intensity		Absolute Emissions		ITR
			%	Production Emissions (tons CO2e / $m PPP GDP)	Consumption Emissions (tons CO2e / Capita)	Production Emissions (tons CO2e)	Consumption Emissions (tons CO2e)	(ºC)
Legal & General Diversified (Sovereign Exposure)	14.7	3.0	86.3	259.9	9.4	3,787	3,369	-

Source: MSCI, Mercer calculations and investment manager as at 31 December 2023. Asset value provided by Aegon as at 31 December 2023. Totals may not sum due to rounding.
Sovereign production emissions data shown are consistent with the PCAF definition of Scope 1 sovereign emissions, aligning with the UNFCCC definition of domestic territorial emissions, including emissions from exported goods and services. Emissions data includes land use, land-use change and forestry.
Sovereign consumption emissions data shown are consistent with the PCAF definition of consumption emissions, equivalent to production emissions, less exported emissions, plus imported emissions. Emissions data includes land use, land-use change and forestry.
(a) The figures represent the amount and proportion of DC assets for which ***eligible data is reportable.***

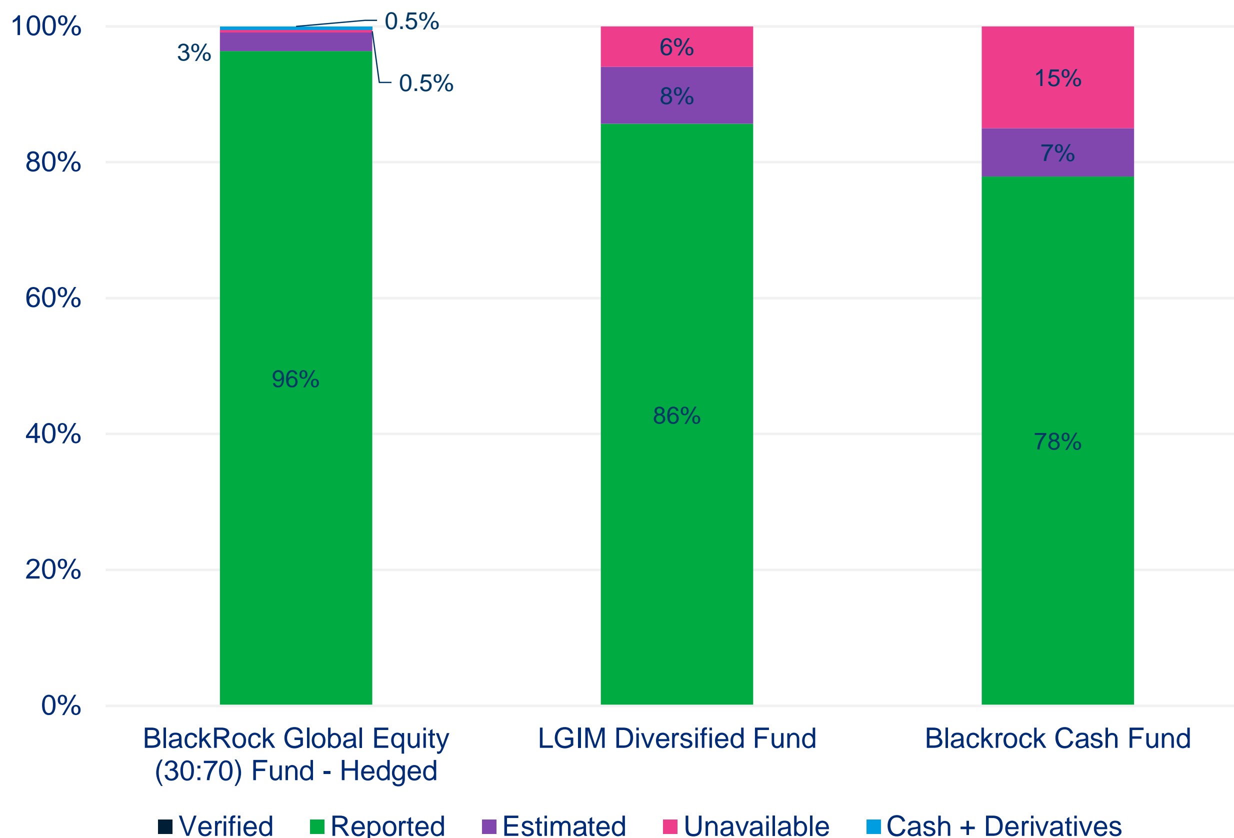
Non-sovereign bond assets – Scope 3 emissions

Manager / Mandate	Total assets ($m) [a]	% of DC Assets [a]	Carbon Footprint (Scope 3)				WACI [b] (Scope 3)				Absolute Emissions (Scope 3) [c]			
			Upstream		Downstream		Upstream		Downstream		Upstream		Downstream	
			Metric	Coverage	Metric	Coverage	Metric	Coverage	Metric	Coverage	Metric	Coverage	Metric	Coverage
BlackRock 30/70 Global Equity	353.1	71.0	113.6	99.0	329.7	99.0	246.3	99.1	506.5	99.1	38,036	99.1	111,008	99.1
Legal & General Diversified (Non-Sovereign (Equity and Corporate Bonds)	68.2	13.9	118.8	89.3	258.7	89.3	259.0	93.9	453.6	93.9	7,722	89.4	16,598	89.4
Total (Total Listed Equity and Corporate Bonds)	**421.3**	**84.9**	**118.8**	**89.3**	**258.7**	**89.3**	**259.0**	**93.9**	**453.6**	**93.9**	**7,722**	**89.4**	**16,598**	**89.4**

Source: MSCI, Mercer calculations and investment managers as at 31 December 2023. Asset value provided by Aegon as at 31 December 2023. Totals may not sum due to rounding.

(a) The figures represent the amount and proportion of DC assets for which ***eligible data is reportable.***
(b) BlackRock were unable to provide scope 3 emissions data for the Cash Fund at time of writing.

Chart 8: Data Quality for the Popular Arrangement components analysed for scope 1 and 2 emissions



Source: BlackRock, Mercer Calculations.

For the Scope 3 emissions metrics, the data used throughout is 100% estimated due to the poor quality/availability of Scope 3 data.

For the DC Section assets, the WACI analysis as at 31 December 2023 has meaningful data coverage. The level of reported data are 10% and 5% higher, in absolute terms, for the BlackRock Global Equity (30:70) Equity Fund and the LGIM Diversified Fund (the new DGF) respectively.

The source of this year's data was MSCI, representing a change in provider from the previous year. While this has led to some methodology changes which mean that comparisons with last year's data are not entirely like-for-like, the change will provide greater consistency year on year going forward. This has been considered when setting the emissions reduction target.

- The largest asset allocation in the DC Section is to equities, and equities are also the materially largest contributor to the DC Section's absolute carbon emissions. Equities will continue to be the dominant exposure and contributor over time. None of the DC Section portfolios are currently aligned with a 1.5ºC pathway, thus highlighting the need for engagement and support from managers of the assets to engage with the companies within the indices. BlackRock is one of the largest asset managers in the world and the Trustee expects them to be at the forefront of this engagement and has made that expectation know to them. Legal & General is also a prominent asset manager who prioritises transparency and communicates engagement with companies where they hold significant investment in equities and corporate bonds. The Trustee has sought to leverage the managers' capabilities, which has seen WACI fall for their respective mandates since 2022.

Targets

Defined Benefit Section

The Trustee has set a target of **reducing the WACI (Scope 1 and 2 emissions) for the aggregate credit portfolio (comprising the Insight and PGIM buy & maintain credit portfolios) by 35% by 2030 relative to a 2020 base year**.

The Trustee notes that whilst Carbon Footprint is the recommended intensity metric set out in the TCFD guidance, WACI has been selected due to better data availability for prior years.

In setting targets for the DB Section, the Trustee considered various factors feeding into overall feasibility (including data availability, quality and the nature of the investments themselves), outlined below.

Within the DB Section's large defensive asset portfolio:

- The LDI mandate is the largest allocation and the exposure within it is mainly to UK government gilts. The Trustee has no control over the carbon intensity of the UK or related UK government policy, and thus it would be very difficult for the Trustee to exert influence and drive the change required to reach any target set for the mandate. The Trustee notes that the UK Government is targeting being net zero by 2050.
- The credit portfolio represents the remainder of the defensive portfolio. Since these credit mandates are held on a segregated basis within MIF4, the Trustee does have the ability to influence the management of the mandates, via the delegated investment manager.

Within the DB Section's smaller return-seeking portfolio, comprising the secured finance and illiquid debt (private debt and real estate debt) mandates:

- These are all pooled investment vehicles and therefore the Trustee has very limited ability to exert control over the policies of the investment managers, portfolio holdings and thus the resulting carbon emissions. The Trustee can only seek to engage with the investment managers on climate matters. As noted above, it is also currently very challenging to calculate metrics on illiquid debt mandates for tracking purposes.

For the reasons outlined above, the Trustee concluded it was feasible to set a target for the aggregate credit portfolio only, and not for the other assets. The target therefore covers 15% of the strategic asset allocation for the DB Section. The Trustee revisited this decision this year and concluded that the target remains appropriate. Going forward, the Trustee will keep the target under review to ensure it remains appropriate and relevant, taking into account any changes to the investment strategy of the Scheme, the availability of data, the balance between portfolio and real-world decarbonisation, as well as wider market developments. With this in mind, the Trustee may change its target in the future.

The Trustee reviews progress against the target at least annually and will consider setting specific targets for other asset classes and including Scope 3 emissions if and when the available data improves and if there are suitable calculation methodologies available.

Over the three years to 31 December 2023, the investment managers underlying the aggregate credit portfolio made the following progress against the emissions target:

- **21% reduction for the aggregate credit portfolio (driven by Insight).**

A wide range of factors will affect whether the Trustee achieves its target and the Trustee has varying degrees of control over these factors. Ultimately achieving the desired level of decarbonisation will depend on global economies overall successfully decarbonising. Notwithstanding that there are factors outside of the Trustee's control, the Trustee's intention is to meet its target, and it has engaged with the

delegated investment manager and the third party managers to make clear its position. Going forward, the Trustee will be working closely with these parties to identify and manage a staged emissions reduction plan and steward an increase in transition capacity.

The Trustee is comfortable with the progress made against the target to date and is comfortable that they remain on track to meet the target, while noting that progress is not expected to be linear. However, they are mindful that the majority of progress has been driven by Insight, and, as set out previously, will continue to liaise with PGIM in respect of their portfolio.

Defined Contribution Section

The Trustee has set a target of **reducing the WACI (Scope 1 and 2 emissions) for the Popular Arrangement by 30% by 2030 relative to a 2022 base year and the Trustee considers this target to remain appropriate.** The basis for using WACI as the metric within the target is again due to the quality and availability of data. There was no progress against this target over the year - more details are provided below, with the key reason being that the positive impact from the change in equity fund was offset by the change in DGF, which had a greater WACI intensity than the fund which it replaced.

In setting this target, the Trustee considered the following:

- The lifetime of the DC Section is expected to be longer than the DB section
- The Popular Arrangement is expected to remain fairly consistent in terms of asset exposure to equities and other growth assets over time. The Trustee notes that the objective of targeting cash at retirement will remain under regular review.
- The Trustee has noted that the change in DGF, from BlackRock to Legal & General, has slowed progression towards the target. It has separately assessed the position had the Legal & General Diversified Fund been in place since 31 December 2022. Progress has been positive for the fund over the year and the Trustee will focus on further engagement with the manager on the required level of carbon reduction.
- Given the nature of the DC Section assets, the Trustee expects data coverage and quality to continue to improve over time and support monitoring of the metrics and targets, which has been the case since the 2022 assessment. If the strategy evolves to include exposure to illiquid assets over time, there may be similar challenges to those stated above for the DB Section and the metrics may need to be adapted.
- It is likely that these investments will remain within pooled investment vehicles and therefore the Trustee has very limited ability to exert control over the policies of the investment managers, portfolio holdings and thus the resulting carbon emissions. The Trustee can only seek to engage with the investment managers on climate matters.
- The Trustee will review its progress against the target at least annually and will consider setting specific targets for the other asset classes, if and when the available data has improved and there are suitable methodologies.

Appendix A
Technical Appendix

Roles of those undertaking scheme governance activities

The Investment Sub-Committee

The ISC is responsible for the following activities in relation to the oversight of climate-related risks and opportunities:

- Understanding the climate-related risks and opportunities at the strategic asset allocation level and at the investment manager level;
- Providing challenge to advisor recommendations to ensure the advice provided facilitates effective and efficient decision-making;
- Monitoring, managing and challenging the performance of the investment managers and the advisers;
- Undertaking Scheme governance activities on behalf of the Trustee, such as coordinating required public disclosures;
- Reviewing quarterly investment performance reports and the annual manager deep dive report and highlighting key information for noting or action.

Roles of advisers

The Trustee has appointed advisers to carry out the following climate-related roles as part of their wider duties:

Investment consultant to the Defined Benefit Section (Mercer)

- Advises on strategic asset allocation, taking into account climate risk, supported through the provision of climate scenario analysis;
- Advises on the choice of climate-related metrics and targets, as well as changes to investment mandates;
- Advises on manager selection, taking into account the Trustee's sustainability beliefs and climate-related targets and how managers account for climate change in their investment processes;
- Monitors investment manager performance against relevant climate-related targets;
- Alongside the delegated manager, supports the Trustee with stewardship activities, which may be related to climate change, such as monitoring and reporting on voting and engagement activities in respect of the invested assets;
- Provides training to the Trustee on climate change, including involving investment managers and other professional advisers in the delivery, where appropriate; and
- Assists the Trustee in producing the Scheme's TCFD report on an annual basis.

Investment consultant to the Defined Contribution Section (Mercer)

- Advises on investment arrangements, including the default investment strategy, taking into account climate risk, supported through the provision of climate scenario analysis;
- Advises on the choice of climate-related metrics and targets as well as changes to investment mandates;
- Advises on manager selection, taking into account the Trustee's sustainability beliefs and climate-related targets and how managers account for climate change in their investment processes;
- Supports the Trustee with stewardship activities, which may be related to climate change, such as monitoring and reporting on voting and engagement activities in respect of the invested assets, including significant vote considerations.
- Monitors investment manager performance and progress against relevant climate-related targets;
- Provides training to the Trustee on climate change, including involving investment managers and other professional advisers in the delivery, where appropriate; and
- Assists the Trustee in producing the Scheme's TCFD report on an annual basis.

Funding Adviser (Hymans Robertson)

- Advises on the funding position, including an understanding of the potential funding impact of changes to financial or demographic assumptions driven by climate change;
- On at least a triennial basis, advises on funding strategy robustness to climate risk.

Covenant Adviser (Penfida)

- Assesses the Sponsor's approach and commitment to climate change, and the potential impact of climate-related exposures on the Sponsor's ability and willingness to continue to support the Scheme.

Role of Delegated Manager

- The majority of the DB Section assets are invested in Mercer Investment Fund 4 ('MIF4'), a bespoke pooled fund which is managed by Mercer Global Investments Europe Limited ('MGIE'). The Trustee also invests in private debt funds managed by Mercer Investments LLC and Mercer Alternatives (Luxemburg) S.à r.l. Collectively with MIF4, these investments are referred to as the 'Mercer Funds'.
- MGIE has overall responsibility for the appointment and monitoring of specialist third party managers for each Mercer Fund's assets. For MIF4, the appointment and termination of managers is agreed in conjunction with the Trustee.
- As part of the third party manager selection and monitoring process, MGIE consider the level and extent to which the investment managers take into account ESG factors, including climate change, in their investment process and stewardship activities (such as voting and engagement with the underlying companies or issuers they invest in).
- The delegated manager has been appointed based on their credentials, which includes, in part, the integration of sustainability into the management of the Mercer Funds. The Trustee monitors the delegated manager on an ongoing basis, and formally reviews the activity undertaken by them in relation to ESG and climate change on an annual basis.

Regular monitoring and governance activities

There are a number of workstreams that are to be completed regularly in order for the Trustee to fulfill its responsibility for managing climate risks and opportunities. The workstreams undertaken by the ISC are listed below, with each task carried out at least annually, unless otherwise noted:

- Scenario analysis modelling the investment strategy and funding strategy (first year and at least every 3 years thereafter)
- Review appropriateness of undertaking scenario analysis in light of a) data availability changes b) material changes in investment strategy / funding position
- Metrics data collection
- Target setting / target appropriateness review
- Progress against target assessment
- ESG beliefs (including climate change) update / review (triennially)
- Review of manager ESG ratings, climate policies
- Stewardship, including the Trustee's annual implementation statement
- Drafting annual TCFD report

Responsibility for the following workstreams lies directly with the Trustee board, and each task will be carried out at least annually:

- Risk frameworks update/review e.g. risk registry
- Climate covenant assessment
- Review and approval of the TCFD report

Asset Allocations Modelled

DB Section Strategic Asset Allocations modelled

The DB Section strategic asset allocation (SAA) as set out in the Statement of Investment Principles is shown in the table below. For the purposes of climate scenario analysis, the allocations assume a linear phased progression from the current allocation to the Strawman Long-Term Asset Allocation between now and 2030, and then assumes the strategy remains static for the remainder of the analysis period.

Current SAA	%	Modelling Asset Class	Current Asset Allocation (%)	Strawman Long-Term Asset Allocation (%)
Multi Asset	-	Multi-Asset Credit	-	7.0%
Corporate Bonds	15.0%	Global Investment Grade Credit	15.0%	15.0%
Private Debt	11.0%	Global Senior Private Debt	7.0%	-
		Global Private Debt	4.0%	-
Liability Driven Investments	66.0%	LDI/Cash	66.0%	70.0%
Secured Finance	8.0%	UK Floating Rate Note	4.0%	4.0%
		US Floating Rate Note	4.0%	4.0%

DC Section - Popular Arrangements Modelled

A ‘Popular Arrangement’ is defined in the statutory guidance as a fund or lifestyle strategy which £100m or more of the Scheme’s assets are invested, or which accounts for 10% or more of the assets used to provide money purchase benefits (excluding assets which are solely attributable to Additional Voluntary Contributions).

The Cash at Retirement Lifestyle strategy is the only arrangement that meets these criteria. The Cash at Retirement Lifestyle strategy is comprised of the following 3 funds:

1. BlackRock 30/70 Global Equity
2. LGIM DGF
3. BlackRock Cash

The LGIM DGF invests in a number of underlying asset classes. The tables below shows the asset allocation modelled at each stage of the Lifestyle.

Younger member starting point (40 years) → 15+; Average member starting point (20 years) → 15+; Older member starting point → 5

Modelling Asset Class	Years to Retirement														
	15+	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
MSCI World Equity	70%	63%	56%	49%	42%	35%	35%	35%	35%	35%	32%	25%	18%	11%	4%	-
MSCI ACWI Equity	-	1%	1%	2%	2%	3%	3%	3%	3%	3%	3%	2%	2%	2%	1%	-
US Equity	-	1%	1%	2%	2%	3%	3%	3%	3%	3%	3%	3%	2%	2%	1%	-
UK Equity	30%	27%	25%	22%	19%	17%	17%	17%	17%	17%	15%	12%	9%	6%	2%	-
Europe Equity	-	1%	1%	2%	2%	3%	3%	3%	3%	3%	3%	3%	2%	2%	1%	-
Japan Equity	-	1%	1%	2%	2%	3%	3%	3%	3%	3%	3%	2%	2%	2%	1%	-
Developed Asia ex Japan Equity	-	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	-
Emerging Markets Equity	-	1%	1%	2%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2%	1%	-
UK Investment Grade Credit	-	1%	1%	2%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2%	1%	-
US Investment Grade Credit	-	1%	1%	2%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2%	1%	-
Global High Yield Credit	-	1%	1%	2%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2%	1%	-
Global Investment Grade Credit	-	0%	1%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	-
Private Credit IG UK	-	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	-
US Sovereign Bonds	-	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	-
UK Sovereign Bonds	-	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	-
Europe Sovereign Bonds	-	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	-
EMD Hard Currency	-	1%	2%	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%	3%	1%	-
Cash	-	0%	1%	1%	2%	2%	2%	2%	2%	2%	7%	22%	37%	56%	81%	100%
Global Real Estate	-	1%	2%	2%	3%	4%	4%	4%	4%	4%	4%	4%	3%	2%	1%	-
UK Real Estate	-	0%	1%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	-
Listed Infrastructure	-	1%	1%	2%	2%	3%	3%	3%	3%	3%	3%	2%	2%	2%	1%	-
Private Equity	-	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	-

Climate scenario modelling approach

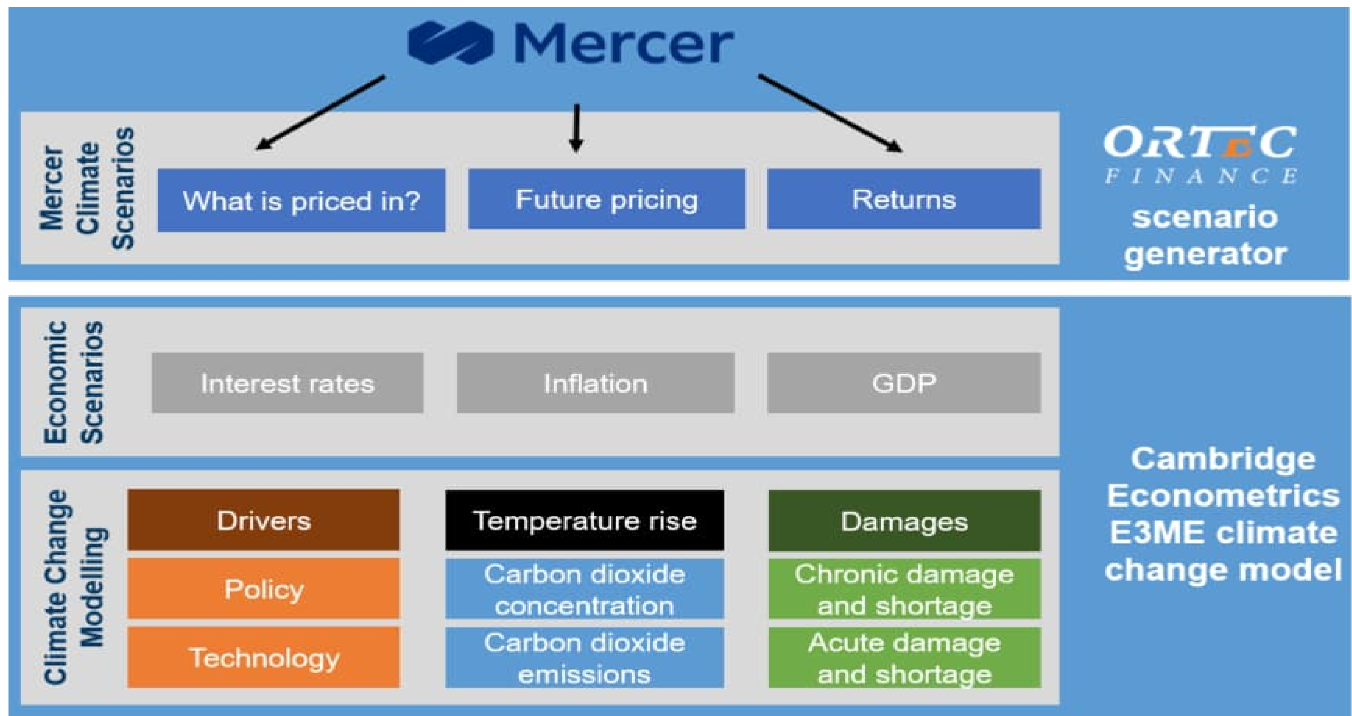
Climate scenario narratives

Mercer has partnered with Ortec Finance and Cambridge Econometrics to develop climate scenarios that are grounded in the latest climate and economic research and give practical insights.

Mercer's climate scenarios are developed by building the investment modelling on top of the economic impacts of different climate change scenarios within the E3ME climate model.

Each climate scenario covers a specific level of warming driven by levels of carbon dioxide (CO_2) and other greenhouse gases. These levels are determined by the policies enacted and the technological developments. The impacts of the warming are shown in the physical damages. E3ME maps this to economic impacts and Ortec's scenario generator maps the economic impacts to investment return impacts by making assumptions on what is priced in currently and how future pricing shocks will occur.

Mercer's scenarios include Mercer's own views on what is priced in and are built on Mercer's climate aware capital market assumptions.



The Mercer/Ortec scenarios are built upon the Network for Greening the Financial System (NGFS) scenarios, with the key differentiating factor being the forward pricing-in stress tests.

i) Scenario stress testing is imbedded into the Mercer/Ortec scenarios, while the NGFS scenarios do not incorporate this

ii) The pricing-in shocks are captured before the actual risk event, e.g. the physical damages risk is now assumed to be priced in within current investor timeframes, rather than say in 2100.

iii) The baseline is based on what is priced in today and reflecting current policies.

Investment and Funding Climate Scenario Analysis Assumptions:

<table>
<tr><th></th><th>Rapid Transition</th><th>Orderly Transition</th><th>Failed Transition</th></tr>
<tr><td>Summary</td><td>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.</td><td>Political and social organisations act quickly and predictably to implement the recommendations of the Paris Agreement to limit global warming to below 2°C.</td><td>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.</td></tr>
<tr><td>Cumulative emissions to 2100</td><td>c400 GtCO$_2$ (2020-2100)</td><td>The additional damage under this scenario could be associated with further human emissions or greater impacts from feedback loops and tipping points.</td><td>c5,000 GtCO$_2$ (2020-2100)</td></tr>
<tr><td>Temperature change</td><td>Average temperature increase stabilises at 1.5°C around 2050.</td><td>This scenario includes additional economic damage consistent with 1.8°C of average temperature rise – peaking in 2070.</td><td>Expected increase of 4.3°C, with a high likelihood range of an increase between 3.4°C and 5.6°C by 2100.</td></tr>
<tr><td>Key policy and technology assumptions</td><td colspan="2">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. This is earlier and more effective under a Rapid Transition than the Orderly Transition, which allows for less investment in energy efficiency and bioenergy with carbon capture and storage.</td><td>Existing policy regimes are continued with the same level of ambition.</td></tr>
<tr><td>Financial climate modelling</td><td>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.</td><td>Pricing in of transition and physical risks associated with 1.5°C up to 2050 takes place over the first 4 years. The additional damage, beyond 1.5°C impacts asset performance on a year-by-year basis with no advance pricing in.</td><td>Physical risks are priced in two different periods: 2026-2030 (risks of first 40 years) and 2036-2040 (risks of 40-80 years).</td></tr>
<tr><td>Physical risks considered</td><td colspan="3">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).</td></tr>
</table>

Source: Mercer and Ortec. Climate scenarios as at December 2023.

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

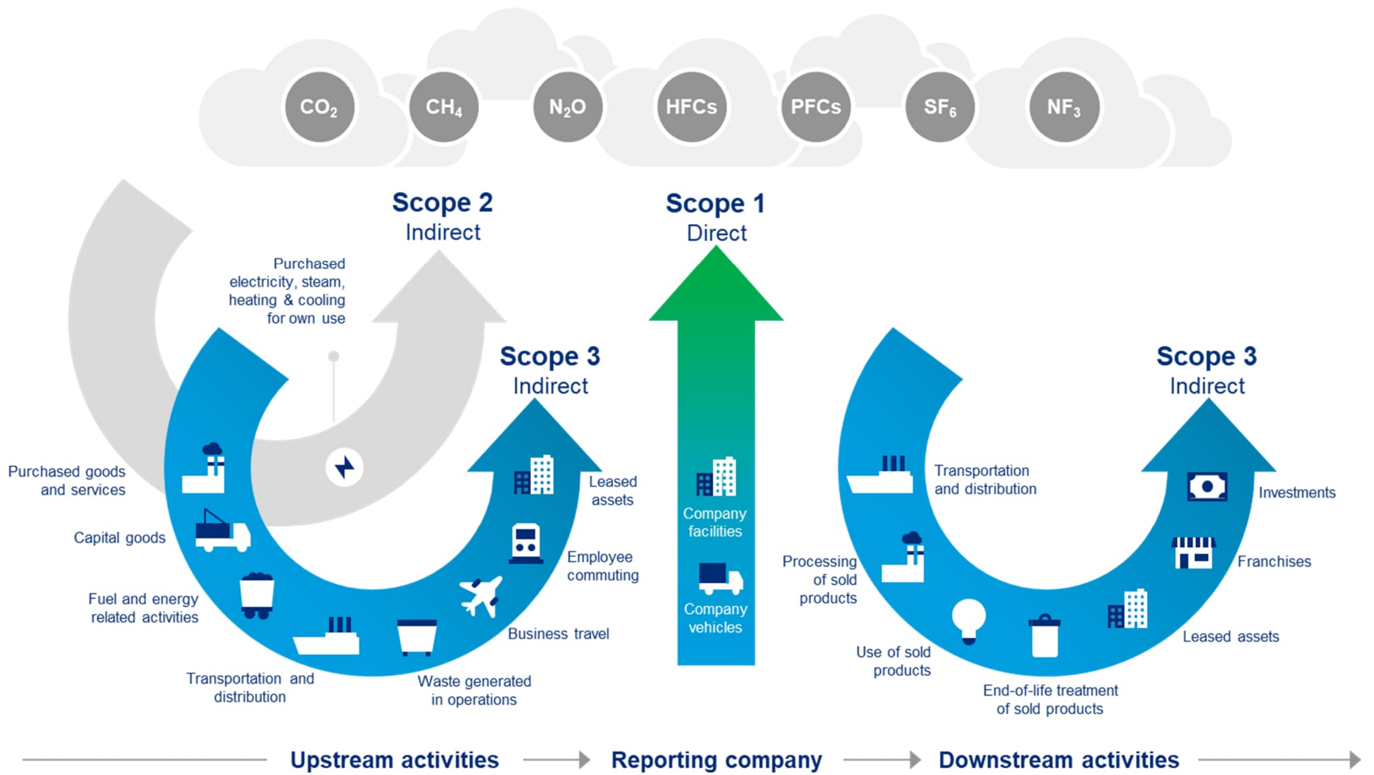
Climate scenario modelling is a complex process. The Trustee is aware of the modelling limitations. In particular:

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.

Climate metric analysis approach

Total Greenhouse Gas Emissions

This metric takes an ownership approach to answer what proportion of a company's or asset's emissions an investor owns and is therefore responsible for financing. It includes the seven types of greenhouse gas ("GHG") (as defined in the Kyoto Protocol[4]), across the three scopes of emissions, as summarised below.



Source: GHG Protocol

Emissions of the seven greenhouse gases have different impacts on climate change. In order to simplify reporting, each greenhouse gas is calibrated relative to carbon dioxide and is reported as 'carbon dioxide equivalent' emissions (CO_2e). In this way the Trustee can compare companies that emit different amounts of different gases on a consistent basis.

Recognising the different methodologies used to calculate absolute emissions for sovereigns and corporates, the Trustee reports sub totals at the corporate and sovereign levels.

The Trustee has chosen this metric to understand the absolute amount of emissions financed by the Scheme's investments.

In respect of sovereign debt instruments the Trustee follows the Partnership for Carbon Accounting of Financials ('PCAF') to derive absolute emissions.

Carbon Footprint

Carbon Footprint is an intensity measure of emissions that takes the Scheme's total GHG Emissions figure and normalises it to take account of the size of the investment.

Analysing an investment fund's Carbon Footprint assists the Trustee in identifying carbon-intense sections of the Scheme's portfolio. The Trustee has therefore chosen this metric to assist them in prioritising carbon intense parts of the investment strategy for potential re-allocation or engagement, as a means of mitigating associated climate-related risks.

Weighted Average Carbon Intensity

Weighted Average Carbon Intensity (WACI) is an alternative intensity measure of emissions that normalises a company's total GHG Emissions figure by its revenue. This metric is calculated by taking the total carbon emissions of the investment and dividing by annual company revenue. A different approach is taken for sovereign bonds, where the specified sovereign GHG Emissions are normalised by Purchasing Power Parity adjusted Gross Domestic Product (PPP-adjusted GDP) or per Capita.

Analysing a fund's WACI assists the Trustee in identifying how carbon efficient the business models of the companies held within a portfolio are. Alongside Carbon Footprint, the Trustee has chosen this metric to assist them in prioritising carbon intense parts of the investment strategy for potential re-allocation or engagement, as a means of mitigating associated climate-related risks.

Implied Temperature Rise

This is a forward-looking metric that considers the pledges, commitments and business strategy changes that underlying investee companies/issuers have made. It provides a prediction of the potential temperature rise over the rest of the century based on the activities of those companies and issuers. The metric illustrates the degree of portfolio alignment with the goals of the Paris Agreement.

The calculation of the level of warming is determined by mapping a given company's/issuer's level of over/undershoot (relative to its carbon budget) to a temperature outcome.

The Trustee has chosen this metric to include in this report because of its simplicity in presentation and a useful way to see, at a glance, the positioning of a fund relative to 1.5°C economy. This is also a measure of climate transition risk, with greater transition risk highlighted in asset allocations with a higher Implied Temperature Rise.

Data Quality

Data Quality aims to identify the proportion of the underlying portfolios for which the Trustee has high quality emissions data. The Trustee has categorised the underlying emissions data by whether it has been verified by a third party, reported by the company, estimated by the data provider, or is unavailable, to determine the how representative the analysis is of the Scheme's actual portfolio.

Data Quality also assists the Trustee in monitoring quality of reporting over time, as companies are expected to continually improve their reporting on climate-related metrics. As the quality of data improves, the decision usefulness of the climate metrics reported on the Scheme's portfolio increases. In addition, the Trustee is able to identify the companies in the portfolio that are not currently reporting emissions data and use this as the basis for engagement.

Data sources

Defined Benefit Section

Climate-related metrics provided by Mercer (all except LDI) have been sourced from MSCI using stocklist data provided by State Street as custodian of Mercer Investment Fund 4. LDI metrics have been provided by BlackRock. Asset value data provided by Mercer.

Defined Contribution Section

Climate-related metrics provided by Mercer have been sourced from MSCI using stock list data provided by the investment managers. Other data has been requested directly from the investment managers. The asset values have been provided by Aegon, who provide the platform on which the underlying funds are accessed.

Proxy data

For some asset classes, data coverage is too low (or no data is available) to be able to take a pro rata approach. Use of proxy data (data of other asset classes or funds that broadly represent a given fund) can help provide climate-related data where coverage for an asset class/fund is limited.

Defined Benefit Section

The Trustee considered the use of proxy metric data for private debt, real estate debt and secured finance. However, the characteristics of the proxy fund would be too different from the invested assets to be able to make any informed investment decisions with the information, and be of limited use from an engagement standpoint. For now, no data on these asset classes has been presented. These assets represent 15% of the total actual asset allocation.

Defined Contribution Section

No proxy data has been used.

Scope of emissions

Scope 1, 2 and 3 emissions data has been included in this report, except where noted. The data coverage for Scope 3 emissions data is improving but the assessment of an invested company's carbon footprint could be considered an understatement. Scope 1, 2 and 3 emissions are as defined by the GHG protocol.

Data coverage

Data coverage refers to the proportion of an asset in which the various climate-related metric data is available. There are gaps in the data as:

- Some public listed companies are not publishing climate-related data or are providing poor quality data. This is relevant to public equity and corporate bonds. Obtaining data for emerging market equity and debt can also be challenging due to general disclosure and transparency challenges.
- Many private companies do not currently produce climate-related data and coverage for private markets, such as private equity and private debt, will be low, or zero for mature funds.
- Sovereigns, or governments, may not publish climate-related data in the public domain. This is a particular challenge for emerging market debt. For UK government debt, data is available but there is a delay in the data being published.
- Short-term instruments, such as in the DB Section's secured finance portfolios, have limited data available due to the short-term nature of the individual assets.

In this report, the Trustee has predominantly used a pro rata approach to scale up each climate metric for DB and DC assets in order to present the data as if full coverage was available for each asset. This assumes that the part of an investment fund that does not have data available has the same climate metrics as the part where there is data.

The Trustee is working with the investment advisors and asset managers to address the data gaps, as far as they are able.

Asset class assumptions

Liability Hedging Portfolio

For the BlackRock LDI, emissions are defined as below:

- **Scope 1 Emissions (Production Emissions) including LULUCF:** The most recently reported or estimated Scope 1 greenhouse gas emissions for the country territory (if available), in tons of CO2 equivalent per year (tCO2e/yr). Scope 1 emissions are domestic GHG emissions from sources located within the country territory. Values include land use, land-use change and forestry ('LULUCF').
- **Scope 2 Emissions:** The estimated Scope 2 greenhouse gas emissions for the country territory (if available), in tons of CO2 equivalent per year (tCO2e/yr). Scope 2 emissions are GHG emissions occurring as a consequence of the domestic use of grid-supplied electricity, heat, steam and/or cooling, which is imported from another territory. MSCI ESG Research estimates Scope 2 emissions based on the government's imported emissions from electricity, gas and water sector.
- **Scope 3 Emissions:** The estimated Scope 3 greenhouse gas emissions for the country territory (if available), in tons of CO2 equivalent per year (tCO2e/yr). Scope 3 emissions are GHG emissions attributable to non-energy imports as a result of activities taking place within the country territory. MSCI ESG Research estimates Scope 3 emissions based on the government's imported emissions from sectors other than electricity, gas and water sector.
- **Exported Emissions (tCO2e):** The estimated exported emissions for the country territory (if available), in tons of CO2 equivalent per year (tCO2e/yr).
- **Consumption Emissions (= Scope 1 including LULUCF - Exported Emissions + Scope 2 + Scope 3) (tCO2e):** The estimated consumption emissions for the country territory (if available), in tons of CO2 equivalent per year (tCO2e/yr). Consumption emissions are calculated based on Scope 1 emissions including LULUCF plus Scope 2 and Scope 3 emissions, minus exported emissions.

The following assumptions have been made and methodologies followed in the calculation of the climate-related metrics for the Liability Hedging Portfolio:

- Scheme's asset position at 31 December 2023.
- Emissions data based on latest available in 2022. Calculated by BlackRock from various sources, such as UNFCCC, OECD, MRIO/PRIMAP.
- UK Purchase Power Parity-adjusted GDP for 2022, published by the World Bank, of $3,656bn.
- UK Population for 2022 of 66,971,411.
- Figures cannot sensibly be aggregated with emissions data for non-gilt assets due to risk of double counting as UK emissions include corporate and household emissions.
- The metrics cover the full economic exposure to UK gilts which will be from the physical gilt holdings and any exposure to repo.
- Gilts posted out as collateral by the Scheme are included in the gilt valuations and gilts received as collateral are excluded.
- Interest rate swaps, inflation swaps, futures, cash and money market fund holdings have all been excluded.
- The temperature alignment metric reflects the UK's alignment temperature with reference to the UK's Nationally Determined Contribution ('NDC').

Category	Market value of exposure (£m)
Funded gilts only	519.4
Gilts on repo	225.5
Combined gilt exposure	744.9

Source: BlackRock, MSCI Data. As at 31 December 2023

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Mercer

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MSCI

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Penfida

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The Trustee has been supported by Mercer in the production and design of this report.