



TUI Group UK Pension Trust

Climate change report

A report for members by the Trustee of the TUI Group UK Pension Trust (the “Trust”)

Year to 30 September 2023

Why have we written this report?



This report provides members the opportunity to find out more about the work carried out by the Trustee in relation to climate change.

It is the first climate change report by the Trustee of the Trust.

We hope you find it informative and would welcome any feedback.

Mike Roberts

Chair of the TUI Group UK Pension Trust

Overview

We, as the Trustee of the TUI Group UK Pension Trust, view climate change to be a financially material factor for the Trust, over both the short and longer term. It represents a systemic risk to society, the economy and the financial system, although the transition to a low carbon economy also presents opportunities for investors.

These risks and opportunities have the potential to impact the Trust's investments, the financial health of the sponsoring employer and the Trust's funding position. We monitor this potential impact and are considering steps to reduce climate-related risks on behalf of members.

This report describes how we have identified, assessed, and managed climate-related risks and opportunities to the Trust during the Trust's year to 30 September 2023.

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Introduction

About the TUI Group UK Pension Trust (the “Trust”)

The Trust has a Defined Benefit (“DB”) Section with total assets (including its buy-ins) of c.£1.5bn as at 30 September 2023, and a Defined Contribution (“DC”) Section with total assets of c£38m as at 30 September 2023.

The Britannia Airways Limited Superannuation and Life Assurance Scheme was set up with effect from 1 November 1962 by a definitive Trust Deed and Rules dated 18 September 1964. On 29 September 2015, the name of the Britannia Airways Limited Superannuation and Life Assurance Scheme was changed to the TUI Group UK Pension Trust (“the Trust”). From 30 September 2015, the Trust included three segregated DB Schemes which are comprised as follows:

1. The BAL Scheme (“BAL Scheme”) is comprised of the assets and liabilities of the Britannia Airways Limited Superannuation and Life Assurance Scheme immediately before 30 September 2015;
2. The TUI UK DB Scheme (“TUI Scheme”) is comprised of the assets and liabilities of the TUI Pension Scheme (UK) which were transferred to the Trust on 1 October 2015; and
3. The TAPS Scheme (“TAPS Scheme”) is comprised of the assets and liabilities of the Thomson Airways Pension Scheme which were transferred to the Trust in two parts on 1 October 2015 and 1 January 2016.

All of the Schemes are occupational pension schemes. The BAL and TUI UK Schemes have both defined benefit and defined contribution members whilst the TAPS Scheme has only defined benefit members. With effect from 31 October 2018, the Trust closed to future accrual and contributions.

The purpose and structure of this report

The purpose of this report is to describe the Trust’s governance framework for managing climate-related risks and opportunities and how it has been implemented in the year to 30 September 2023. It is the Trust’s first report in line with the recommendations of the **Taskforce on Climate-Related Financial Disclosures (“TCFD”)**, as required by the 2021 Climate Change Governance and Reporting Regulations.

This report covers the TCFD’s thematic areas of:

- **Governance** – the Trust’s governance around climate-related risks and opportunities;
- **Strategy** – the potential impacts of climate-related risks and opportunities on the Trust and the resilience of the Trust’s investment and funding strategies under different climate-related scenarios;
- **Risk Management** – the processes used by the Trust to identify, assess, and manage climate-related risks; and
- **Metrics and Targets** – the metrics and target used to assess and manage relevant climate-related risks and opportunities to the Trust.

The key findings of this report are set out on page 5.

Key findings

1. **Governance** – the Trustee has a robust framework for managing the Trust, including setting clear expectations and responsibilities in relation to climate change.



A Climate Governance Statement defines the responsibilities of everyone involved



Climate-related risks and opportunities are reviewed regularly in light of the Trustee's beliefs



The Trust's advisers support the Trustee on climate-related matters

2. **Strategy and Risk Management** – the Trustee has taken steps to understand how climate change might affect the Trust and to control the risks it has identified. Based on the analysis carried out, the Trustee expects climate change to potentially impact the Trust more significantly over the longer term. The Trustee aims to reduce the risks to the Trust in several ways, including:



Investing responsibly, in line with the Trustee's beliefs



Regularly reviewing the Trust's investment managers' climate practices and engaging with managers if concerns arise



Setting Stewardship priorities and communicating these expectations to the Schemes' investment managers.

3. **Metrics and Target** – the Trustee has collected and reviewed information about the greenhouse gas emissions, carbon footprint and emissions reductions targets for the assets the Trust invests in, to help it understand the Trust's exposure to climate risks. It has set a target to increase the proportion of companies it invests in with science-based emissions reductions targets and improve data coverage for the DB Section and DC Sections respectively.



Collected and reviewed greenhouse gas emissions data for the Trust's investments



Reported proportion of investments with no data or estimated data



Agreed to use data quality as an additional climate-related metric to help it monitor climate-related risks

Section 1: Governance

How the Trustee maintains oversight of climate related risks and opportunities relevant to the Trust

The Trustee has ultimate responsibility for making decisions and ensuring effective governance of climate change risks and opportunities in relation to the Trust. No one other than the Trustee undertakes governance activities.

In September 2022, the Trustee agreed a Climate Governance Statement which clearly lays out the division of responsibilities between the Trustee Chair, the Trustee, the Investment Committee, the Actuarial, Investment and Covenant advisers, and the investment managers, in order to maintain appropriate oversight of the climate-related risks and opportunities relevant to the Trust so that the Trustee can be confident that its statutory and fiduciary obligations are being met.

Roles and responsibilities

Trustee Chair

It is the Trustee Chair's responsibility, with support from the Secretary to the Trustee, to ensure that sufficient time is allocated for consideration and discussion of climate matters by the Trustee, the Investment Committee and its advisers.

Trustee

In broad terms, the Trustee is responsible for having effective climate governance arrangements in place. The responsibilities of the Trustee should include:

- determining the short-, medium- and long-term periods to be used when identifying climate-related risks and opportunities for the Schemes;
- allowing for climate-related considerations, when assessing and monitoring the sponsoring employer's covenant;

- ensuring that the Trust's actuarial, investment, covenant and legal advisers have clearly defined responsibilities in respect of climate change;
- ensuring that the Trust's actuarial, investment and covenant advisers: (i) have adequate expertise and resources, including time and staff to carry out their responsibilities; (ii) are taking adequate steps to identify and assess any climate-related risks and opportunities which are relevant to the matters on which they are advising; and (iii) are adequately prioritising climate-related risks;
- considering and documenting the extent to which the advisers' climate-related responsibilities are included in their service agreements, and the investment consultants' strategic objectives; and
- communicating with members and other stakeholders on climate change where appropriate, including public reporting in accordance with the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 and the Occupational and Personal Pension Schemes (Disclosure of Information) Regulations 2013 (together "TCFD reporting") when required.

In view of the full buy-in for TAPS Scheme and partial buy-in for BAL Scheme, the Trustee will establish climate related governance arrangements which are proportionate to the time horizons of the different Schemes.

The Trustee has delegated consideration of some climate-related matters to its Investment Committee, as outlined below.

Investment Committee

In broad terms, the Investment Committee is responsible for:

- incorporating climate-related considerations into: (i) the Trustee's investment beliefs and the Trust's investment policies; and (ii) the strategic decisions relating to the Schemes' funding and investment framework;
- ensuring that the Trust's investment managers have processes in place for managing climate-related risks and opportunities in relation to the Trust's investments;

Section 1: Governance

- identifying and assessing the main climate-related risks and opportunities for the Trust over the agreed time periods and documenting the management of them;
- incorporating climate-related considerations into the Trust's risk register and IRM framework;
- considering and documenting the extent to which the advisers' responsibilities are included in any agreements, such as investment consultants' strategic objectives and service agreements; and
- selecting and regularly reviewing metrics to inform the Trustee's identification, assessment and management of climate-related risks and opportunities and setting and monitoring targets to improve these metrics over time.

Actuarial adviser

In broad terms, the Trust's actuarial adviser is responsible for:

- advising on how climate-related risks and opportunities might affect the Trust's funding positions over the short-, medium- and long-term and the implications for the differing Schemes' funding strategies, long-term objectives, and journey plans; and
- working with the Trustee's other advisers to assist the Trustee in incorporating climate change in its governance arrangements, risk register and communication with stakeholders (including, but not limited to, its TCFD reporting) as appropriate.

Investment adviser

In broad terms, the Trust's investment adviser is responsible, as requested by the Trustee or Investment Committee, for:

- providing training and other updates on relevant climate-related matters;
- helping the Investment Committee to formulate the investment beliefs in relation to climate change and reflecting these in the Trust's investment policies and strategies;
- advising how climate-related risks and opportunities might affect the different asset classes in which the Trust might invest over the short-, medium- and long-term, and the implications for the Trust's investment strategies and journey plans;
- advising the Investment Committee on the appropriateness and effectiveness of the Trust's investment managers' processes, expertise and resources for managing climate-related risks and opportunities, given the Trustee's investment objectives and beliefs, and engaging with the managers to improve climate-related integration over time;
- assisting the Trustee and Investment Committee in incorporating climate change in its investment monitoring;
- advising on the inclusion of climate change in the Trust's governance arrangements, risk register and IRM framework;
- assisting the Investment Committee in identifying, monitoring, and using suitable climate-related metrics and targets in relation to the Schemes' investments, including liaising with the Schemes' investment managers regarding provision of the metrics;
- leading on the preparation of the Trustee's TCFD reporting, and assisting with other communication with stakeholders in relation to climate change, working with the Trustee, the Investment Committee and the other advisers as appropriate; and

Section 1: Governance

- Working with the Trustee's other advisers to assist the Trustee in incorporating climate change in its governance arrangements, risk register and communication with stakeholders (including, but not limited to, its TCFD reporting) as appropriate.

Covenant adviser

The Trust's covenant adviser is responsible for:

- considering in periodic covenant reviews how climate-related risks and opportunities might affect the Trust's sponsoring employer over the short-, medium- and long-term and the implications for the Trust's journey plans;
- noting in the Trust's covenant monitoring any changes in the policies and practices of the sponsoring employer relating to climate change, and the employer's progress against any climate-related targets it has set, working with the Trustee and the other advisers as appropriate; and
- working with the Trustee's other advisers to assist the Trustee in incorporating climate change in its governance arrangements, risk register and communication with stakeholders (including, but not limited to, its TCFD reporting) as appropriate.

Investment managers

In broad terms, the Trust's investment managers are responsible for:

- identifying, assessing and managing climate-related risks and opportunities in relation to the assets of the Trust that they manage, in line with the investment management arrangements agreed with the Trustee and/or Investment Committee;
- reporting on stewardship activities and outcomes in relation to the Trust's investments, wherever feasible;

- exercising rights (including voting rights) attached to the Trust's investments, and undertaking engagement activities in respect of those investments, in relation to climate-related risks and opportunities in a way that seeks to improve long-term financial outcomes for the Trusts' members; and
- providing information to the Trust's investment adviser on climate-related metrics in relation to the Trust assets invested with the manager, as agreed from time to time, and using its influence with investee companies and other parties to improve the quality and availability of these metrics over time.

When considering investment manager responsibilities, the nature of the investment allocation, size of investment and expected time horizon of the investment allocation should be taken into account. For example, the expectations for investment managers managing illiquid assets held in the TUI CIF Secure Income Sub-fund (expected to materially reduce in size as the funds run-off) will differ relative to the Schemes' other investment managers.

Trustee monitoring

The Trustee and Investment Committee consider a range of different information about the climate change risks and opportunities faced by the Trust to enable them to fulfil their responsibilities set out above. These documents will incorporate climate-related risks and opportunities as appropriate, in accordance with the roles and responsibilities set out above. The Trustee (or Investment Committee as appropriate) will review, revise and approve (where appropriate) the following according to their roles and responsibilities:

Quarterly

- Trust's risk register, following review and updates from its advisers
- Updates on the Schemes' investments from the Trust's investment adviser

Section 1: Governance

Trustee monitoring (cont.)

Annually

- Governance arrangements, investment beliefs and investment policies in relation to climate change
- TCFD reporting
- Business Plan for the following year that outlines the main topics due to be discussed at each Board meeting, including climate-related topics, and the papers expected from advisers in relation to each item
- Whether it is appropriate to carry out scenario analysis that illustrates how the Schemes' assets and liabilities might be affected under various climate change scenarios
- Advisers' climate competency and assess how they have performed against their climate responsibilities
- Data on ESG metrics for the Schemes' investments, including at least three climate-related metrics, and performance against any targets set in relation to these metrics;
- Whether to retain or replace any targets set in relation to these metrics

At least every three years (or following major changes)

- A responsible investment report from the Trust's investment advisers that reviews the Trust's investment managers in relation to ESG factors and climate change.
- Choice of short-, medium- and long-term time periods to be used when identifying climate-related risks and opportunities to the Trust

- Scenario analysis that illustrates how the different Schemes' assets and liabilities might be affected under various climate change scenarios, along with commentary on the potential impacts for the sponsoring employer and the implications for the resilience of the different Schemes' funding and investment strategies.
- Choice of metrics to inform the Trustee's identification, assessment and management of climate-related risks and opportunities

Oversight activity – appointments

The Trustee seeks input from its investment, actuarial and covenant advisers to ensure that it can identify, assess, and manage climate risks and opportunities. The Trustee will review the climate competence of its advisers and take appropriate action if any concerns are identified.

Over the Trust Year, the Trustee and Investment Committee have undertaken significant activity on climate change, based on information provided to them by their advisers and investment managers. Where appropriate, the Trustee has questioned the information provided to it to ensure it has a clear understanding of the risks facing the Trust and the actions being taken to reduce them.

With appropriate advisers in place, the Trustee ensures that climate-related risks and opportunities are considered as part of any relevant advice such as investment strategy reviews and assessment of the employer's covenant.

Section 1: Governance

3. Trustee monitoring (cont.)

Oversight activity – objectives set for advisers

In December 2022, the Trustee reviewed the investment advisers' objectives with which they review their investment advisers on an annual basis. The Trustee previously also agreed a climate-related objective which reflects their investment advisers' responsibilities.

Climate-related investment adviser's objectives

- Help the Trustee implement an investment strategy that integrates its policy on ESG (including climate change) and stewardship
- Help the Trustee to have a good understanding of the range and nature of investment risks to which the Trust is exposed, and the size of those risks.

Activities undertaken

In June 2021, the Trustee undertook a session on the new TCFD-related requirements to deepen its understanding of climate risks and opportunities and ensure it was up-to-date on its new climate-related regulatory requirements for the year ahead.

Since then, including during the Trust Year to 30 September 2023, the Trustee and the Investment Committee allocated significant additional meeting time to climate-related topics and commissioned additional advice in order to deepen its understanding of climate change, enhance the Trust's management of climate-related risks and opportunities, and satisfy its regulatory obligations.

Throughout the year, the Trustee Directors have undertaken a gap analysis to identify areas where further training was required.

Climate-related agenda items relevant to TCFD reporting

September 2022:

- Agreed time horizons (short-, medium- and long-term) for the DB Schemes and DC Section for the identification of climate-related risks and opportunities.
- Updated the Trust's Statement of Investment Principles to include its belief that climate change is a financially material systematic issue that presents risks and opportunities.
- Agreed the climate governance statement for the Trust.
- Incorporated climate-related risks into the Trust's risk register.

December 2022:

- Considered how ESG factors, including climate change, could be better integrated into the DC default strategy, as part of the triennial DC strategy review.

March 2023:

- Trustee Directors received stewardship training and agreed to select climate change as a stewardship priority.
- Appraisal of the Schemes' main areas of climate risk exposures and opportunities.

June 2023:

- Carried out climate scenario analysis to help the Trustee understand how risks and opportunities related to climate change could affect the Schemes' investments and funding.

September 2023:

- Reviewed climate exposures metrics and agreed to set the Trust's TCFD targets (a science-based targets for the DB Schemes and coverage based target for the DC Section).
- Carried out a high-level review of managers' responsible investment and climate approaches.

Section 2: Strategy

Identification and assessment of climate-related risks and opportunities relevant to the Trust

Trustees must decide the short-, medium- and long-term time horizons that are relevant to their scheme. It is up to trustees how they determine their time horizons for the purpose of identifying and assessing climate-related risks and opportunities.

The Trustee has defined the time horizons for all Schemes. The Trustee has chosen these time horizons for the DB Schemes and DC Section based on various factors, including the profile of the Schemes' memberships, funding projections and the expected timing of future climate regulations and targets.

The Trustee will review the designated time periods annually and following any material change to the Schemes' membership. These time horizons have informed the Trustee's climate-related considerations and decisions during the year.

Each of the DB Schemes have fundamentally different journey plans and funding positions given their respective membership profiles. BAL and TAPS are fully funded against the expected buyout cost (ie cost to transfer assets and liability obligations to an insurance company). Given ongoing deficit contributions, TUI UK is expected to be fully funded on a Technical Provisions basis by around 2025/2026 and against the expected buy out cost a few years thereafter.

As a result, it is the Trustee's expectation that the long-term time horizons below are likely to be less relevant for these DB Schemes.

However, given the requirement to consider a long-term time horizon and with no certainty on future outcomes, we have used the following time horizons for the climate scenario analysis conducted for the Trustee in June 2023.

Time period	DB Schemes' timeframe	DC Section timeframe	Rationale
Short-term	TAPS: Present (2023) BAL and TUI UK: 2 years (2025)	4 years (2027)	DB Schemes: to align with actuarial valuation timescales and the Trustee's strategic objectives DC Section: major improvements in climate data quality expected
Medium-term	TAPS: 2 years (2025) BAL: 1-5 years (2024-28) TUI UK: 6-10 years (2029-33)	7 years (2030)	DB Schemes and DC Section: Key period over which policy action will determine if Paris Agreement goals will be met
Long-term	TAPS: 15 years (2038) BAL: 18 years (2041) TUI UK: 19 years (2042)	27 years (2050)	DB Schemes: Approximate duration of the aggregate Schemes' liabilities. DC Section: Many economies target net zero by this point

Section 2: Strategy

Overview of the climate-related risks and opportunities relevant to the Trust that the Trustee has identified

The Trustee has identified and assessed the key risks and opportunities for the Trust, split into the DB and DC Sections, within each of these time horizons as summarised below. These risks and opportunities are considered further later in this report where the Trustee's approach to investment risks, opportunities and covenant is discussed in more detail.

	DB Section		DC Section	
	<i>Key risks</i>	<i>Key opportunities</i>	<i>Key risks</i>	<i>Key opportunities</i>
<i>Short term</i>	Exposure to climate-related investment risks may be highest while the Trust retains an allocation to growth assets	Low carbon investments aim to protect against transition risks and provide exposure to transition opportunities	Older members within 5 years of retirement will be most exposed to transition risks in the short term in the event of a Disorderly Net Zero scenario	Low carbon investments can mitigate the impact of market shocks due to a market repricing event. Proposed as part of the 2022 triennial strategy review.
<i>Medium term</i>	Market volatility could cause investment losses and increase time to reach full funding on a "buy-out" basis	When winding down the illiquid funds, the Trustee considers the re-investment into climate aware credit mandates to increase the resilience to climate risks	Transition risks may still be heightened over the medium-term creating volatility. Market returns may be lower if disorderly transition harms economic performance	Impact investments can take advantage of the shift to a low carbon economy and may provide an enhanced source of return over this period
<i>Long term</i>	Cost of buy-out may increase as insurers allow for climate-related risks in their pricing and reserving bases	Buy-out may provide greater protection from climate risks for members' benefits	Physical risks are most severe in the Failed Transition pathway, impacting those members 15 years or more from retirement	Engagement with investment managers to ensure they are exercising stewardship in support of net zero pathways is key to avoiding a failed transition

For the DB Section, TUI UK is in a deficit and may therefore need to run a higher risk investment strategy for longer (compared to BAL). As a result, TUI UK's investment strategy may be more vulnerable to climate risks than BAL. Both TUI UK and BAL have private credit assets that will have fully run-off by 2029 and the Trustee will ensure re-investment in credit strategies which are more resilient to potential climate risks.

For the DC Section, the above risks and opportunities are being considered as part of the triennial investment strategy review and may result in some changes to the investment strategy of the default (and other lifestyles) and potentially the self-select range, such as integration of low-carbon equities within the growth phase of the lifestyles. These changes will aim to improve the strategy's resilience against climate risks.

Section 2: Strategy

Assessing climate-related risks and opportunities

Scenario analysis is a tool for examining and evaluating different ways in which the future may unfold. During the year, the Trustee used scenario analysis to consider how climate change might affect the Trust's assets (and liabilities for the DB Section), funding strategy, investment strategy and the sponsoring employer's covenant.

Climate scenarios considered

The Trustee carried out climate scenario analysis in June 2023, with the support of its investment adviser, LCP, based on scenario sets described below and based on market conditions as at 31 December 2022.

The analysis looked at three possible scenarios, which are set out (in no particular order of likelihood) in the table below. The three climate scenarios are intended to be plausible narratives of how the future could unfold. The Trustee acknowledges that many alternative plausible scenarios exist but found these were a helpful set of scenarios to explore how climate change might affect the DB and DC Sections in the future.

To provide further insight, the Trustee also compared the outputs under each scenario to a "climate uninformed base case", which makes no allowance for either changing physical or transition risks in the future.

These scenarios show that equity markets could be significantly impacted by climate change with lesser, but still noticeable, impacts in bond markets. Further details on climate scenario analysis can be found in Appendix 1.

Transition	Description	Why the Trustee chose it
Failed Transition	Global Net Zero not reached by 2050; only existing climate policies are implemented. The resulting high warming leads to severe physical impacts.	To explore what could happen to the Trust's finances if carbon emissions continue at current levels and this results in significant physical risks from changes in the global climate that disrupt economic activity.
Orderly Net Zero by 2050	Global net zero carbon emissions are achieved by 2050; rapid and effective climate action (including using carbon capture and storage), with smooth market reaction.	To see how the Trust's finances could play out if global net zero carbon emissions are achieved by 2050, meaning that the economy makes a material shift towards low carbon by 2030.
Disorderly Net Zero by 2050	Same policy, climate and emissions outcomes as the Orderly Net Zero by 2050 scenario, but financial markets are initially slow to react and then react abruptly.	To look at the risks and opportunities for the Trust if global net zero carbon emissions are achieved by 2050, but financial markets are volatile as they adjust to a low carbon economy.

Section 2: Strategy

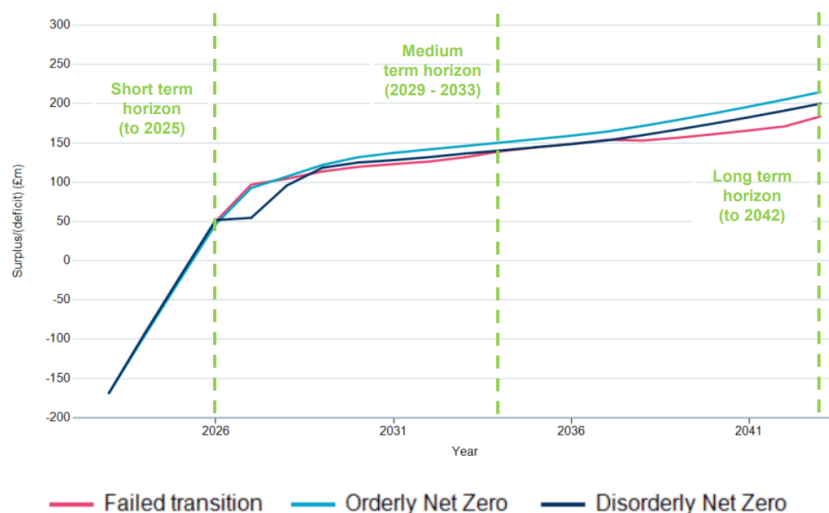
Potential Trust impacts under each scenario – DB Section

The scenario analysis looked at the impact of the Schemes' funding positions over time on the Trust's long-term funding target using discount rates in line with the Schemes' 2019 Technical Provisions bases. The charts in this section illustrate the expected change in surplus of each the TUI UK and BAL Schemes, under each of the three scenarios considered.

It is noted that over the long-term, and particularly beyond the time horizon modelled, the largest effects on the funding positions would be felt under the Failed Transition scenario. On the face of it, the results below suggest that the DB Section is resilient in this scenario. This is partly because in the modelling the DB Section has a low-risk long-term investment strategy with limited exposure to growth assets. Moreover, the DB Schemes invest in a way that is designed to make it fairly immune to changes in interest rates and inflation in normal circumstances, which significantly reduces the volatility of the DB Schemes' funding positions. However, under climate scenarios with major economic disruption – such as the later years of the Failed Transition scenario – the Trust's interest rate and inflation protection may break down, leaving it more exposed to climate risks. The median modelled outcomes do not illustrate this possibility, but the Trustee has considered this risk.

TUI UK Scheme

TUI UK is in a deficit and may need to run a higher risk investment strategy for longer (compared to BAL). As a result, the investment strategy may be more vulnerable to climate risks due to the higher holding to riskier assets. We project TUI UK's private credit assets to have fully run-off by 2029, and TUI UK to be fully funded on a buy-out basis by around 2030. At this point, we have modelled the assets to be in low-risk credit and liability-hedging assets (which provide a hedge of 100% of the interest rate and inflation sensitivities of the Technical Provisions basis).



The impacts on the funding position illustrated above are predominantly driven by impacts on TUI UK's asset and liability holdings to differing degrees. For example, looking at the "medium term horizon" (2029 to 2033), projected asset values at the most extreme modelled position (ie end of 2026) are about £60m lower under the "Net Zero Disorderly" scenario compared to the climate-uninformed base case. However, the impact on the changes to projected liability values is less extreme due to changes in real gilt yields at this same point, with liability values projected to be broadly £15m lower respectively. There are not projected to be any notable impacts over TUI UK's "short term horizon" (period to 2025).

Although the modelling suggests all scenarios would continue to lead to a healthy surplus from 2030 onwards, the impact of a failed transition is more notable from around mid 2035 onwards. Again, the modelling reflects the assumption that liability hedging assets would continue to provide significant protection even in a failed transition.

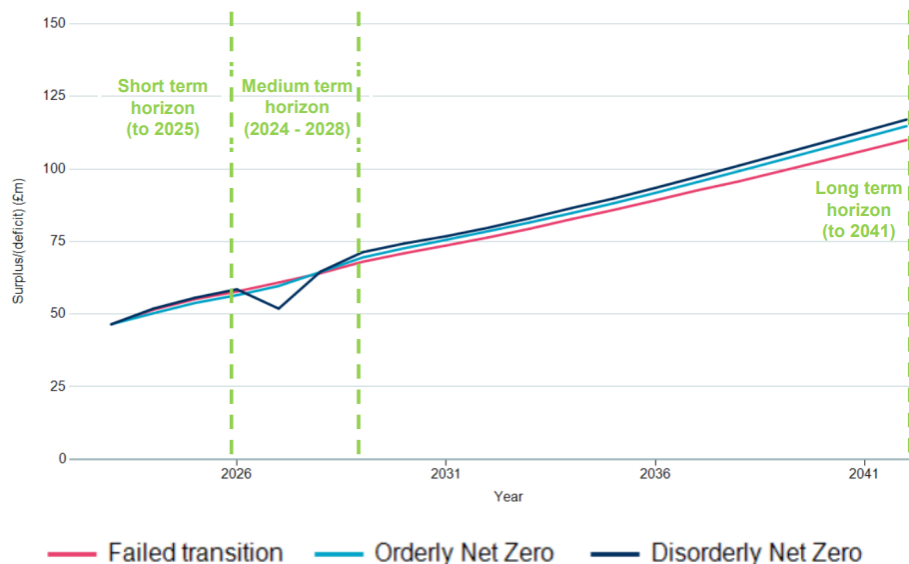
Section 2: Strategy

Potential Trust impacts under each scenario – DB Section (cont.)

BAL DB Scheme (excluding buy-in):

BAL is now in a healthy surplus and close to full funding on a buy-out basis. As a result, the investment strategy has been largely de-risked. The steps taken so far have reduced the vulnerability to climate risks.

BAL is currently holding c20% in private credit assets in run-off (falling to c7% in 2024 and fully run-off by 2029). The remainder of assets are in low-risk credit and liability-hedging assets (which provide a hedge of 100% of the interest rate and inflation sensitivities of the Technical Provisions basis). As such, the modelling of the scenarios does not show a major detrimental impact on the long-term funding position.



The impacts on the funding position illustrated above are predominantly driven by impacts on BAL’s asset and non-insured liability holdings to differing degrees.

For example, looking at the “medium term horizon” (2024 to 2028), projected asset values at the most extreme modelled position (ie end of 2026) are about £17m lower under the “Net Zero Disorderly” scenario compared to the climate-uninformed base case. However, the impact on the changes to projected liability values is less extreme due to changes in real gilt yields at this same point, with liability values projected to be broadly £7m lower respectively.

There are not projected to be any notable impacts over BAL’s “short term horizon” (period to 2025).

Although the modelling suggests all scenarios would continue to lead to a healthy surplus, this reflects the assumption that the liability-hedging assets would continue to provide significant protection even in a failed transition.

BAL DB Scheme buy-in and TAPS buy-in:

The BAL and TAPS Schemes’ buy-in assets have effectively transferred some of the Scheme’s exposure to climate risk to the insurer, Legal & General.

These insured liabilities are likely to be subject to similar financial risks to those illustrated for the non-insured liabilities. However, the protection afforded by the buy-in asset means that any financial impacts will not affect the net funding position, as modelled under the three climate scenarios considered for the Scheme.

The buy-in asset also provides full hedging for the insured liabilities against the demographic risks associated with climate change.

Climate change is a systemic risk that will undoubtedly have profound impacts on the insurance sector over the coming years. To the extent that Legal & General is unprepared for these changes, climate risk increases the chance that the insurer will be unable to meet the benefit payments promised.

Section 2: Strategy

Potential Trust impacts under each scenario – DB Section (cont.)

BAL DB Scheme buy-in and TAPS buy-in (cont.):

The regulatory regime, the insurer's reserves and the financial services compensation scheme (to the extent this covers the Scheme's policy) continue to protect against insurer default due to climate change as well as any other risk.

The Trustee has assessed Legal & General's climate risk management and believe it is managing climate risk well.

Limitations of climate scenario analysis

The results of the climate scenario analysis are incorporated into the integrated risk management of the Trust through specific covenant, investment and funding considerations and the interaction of these.

The intricacies of climate systems present considerable difficulties in modelling the impacts on pension schemes' assets and liabilities. This is particularly true in the Failed Transition scenario where over 4°C of warming is observed.

Due to the unprecedented nature of such warming, it is challenging to encompass all potential consequences within the modelling process. Simplifications in the modelling, such as not allowing for tipping points, mean the actual impact on pension schemes is likely to be more significant than is currently being modelled. The Trustee has considered the potential impact of such limitations in the modelling.

The Trustee is comfortable that, as long as these limitations are understood, the scenarios still provide valuable insights to inform climate risk assessment and management.

Other specific funding and covenant risks:

The Trustee has also identified specific funding and covenant risks which include:

- **Potential demographic and political impacts on funding position** – for example, global warming can have direct and indirect impacts on mortality, with life expectancy (and therefore the value of the Plan's liabilities) potentially impacted as a result. This uncertainty may cause volatility for the Plan's funding position in the long term.
- **Potential impact on journey planning** – for example, market shocks caused by physical or transition climate effects could impact the Trust's overall journey planning. This is of particular concern in the short term whilst the Trust continues to de-risk its portfolio. In the medium term, additional risks include uncertainty in climate pathways and government policy changes, with the major longer term concern being the uncertainty in how physical climate effects will unfold.
- **Changes in covenant security** – for example, climate risks could impact the sponsoring employer and its ability to fund the Trustee. The Trustee's covenant adviser has carried out detailed analysis of these risks for the Trust, which are summarised overleaf.

Section 2: Strategy

Covenant risk assessment

The Schemes are supported by various legal entities with the TUI AG Group ('the Group').

The TUI Group UK Pension Trust (the "Trustee") is aware that climate change represents a significant risk facing the travel and tourism sector given the lack of currently available alternatives to airline and cruise travel as well as the potential physical impact on holiday destinations.

As a result, climate transition is a risk for the Schemes' employer covenant. Climate-related risks are fundamental to the assessment of covenant strength, affordability and the future prospects of the sponsor which informs the Schemes' overall strategy. Ensuring sufficient monitoring of employer-related risks is a key priority for the Trustee. This is more pertinent for the BAL and TUI UK Schemes, as the buy-in within the TAPS Scheme has materially reduced the reliance of that Scheme on the covenant strength of the Group.

As part of its employer covenant assessment for the valuation as at 30 September 2022, the Trustee has received analysis from the Schemes' covenant advisor, PwC, in relation to the Group to help assess the likely resilience of the employer covenant against climate-related risks, and therefore how the Schemes' funding strategies may be affected by climate-related risk. The analysis provided helps the Trustee to consider these risks versus the proposed actions taken by the Group, and also in assessing any opportunities that may arise in the market from transition to Net Zero ahead of competitors.

The Schemes' covenant advisor will be regularly assessing climate-related risks and opportunities, reporting to the Trustee Board in the form of annual monitoring updates and in more detail at each valuation. The Schemes' covenant advisor uses publicly available disclosures from the Group as the basis of their assessment, supported by conversations with management when appropriate.

The climate risk analysis included within the Schemes' covenant advisor's covenant assessment was based on publicly available information including TUI's sustainability agenda (Feb-23), TUI AG's 2022 annual report and published ESG strategies, Aerospace Technology Institute, Refinitiv and Sustainalytics.

Consideration is given to the climate scenario time horizons defined on page 11 of this report.

TUI's sustainability strategy – overview

TUI management has developed a strategy to transition the business to Net Zero by 2050, with a focus on 'real reduction' in emissions rather than only offsetting emissions. This includes committing to milestones by 2030 in order to reduce emissions across its different business segments.

There are three areas of focus:

1. People – to drive empowerment of local people and local supply chains
2. Planet – to reduce footprint
3. Progress – accelerate the transformation of the tourism industry.

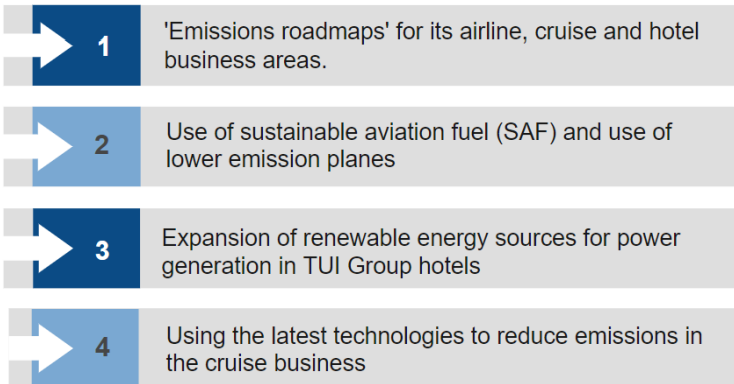
For each of these three areas of focus, studies have been carried out and action plans have been developed to target significant reductions in emissions by 2030 which falls in the Trustee's medium term time horizon for identifying risks and opportunities.

The action plans range from the use of sustainable aviation fuel ("SAF") and the expansion of renewable energy sources for power generation in TUI Group hotels to the latest technologies to reduce emissions in the cruise business.

Section 2: Strategy

Covenant risk assessment (cont.)

TUI's key areas of focus to reduce its carbon impact



Source: TUI's sustainability agenda dated February 2023, TUI 2022 annual report.

TUI has quantified its sustainability targets against its key headline commitments, with the aim of positively contributing to local communities, reducing its environmental footprint and creating experiences that are “authentic and sustainable”.

TUI's emission reduction targets have been confirmed by the Science Based Targets initiative (“SBTi”) as in line with the latest climate science. TUI's airline and cruise businesses were the first in the industry with SBTi-validated reduction targets, potentially giving it a competitive advantage over its competitors in this space.

The covenant advisor considered the industry, economic and reputational risks for the TUI Group as detailed opposite.

Industry risks:

- Inherent risk in the aviation and cruise industries, which require burning large amounts of fuel. TUI is reliant on technological developments to support transition.
- Impact on destinations including the need to adapt current facilities for climate change and to invest in destinations in more moderate geographies as current popular destinations become warmer.
- Potential for reduced demand as customers seek to reduce their own carbon footprint.

Economic risks:

- Cost of transition material given the need for significant capital expenditure.
- Borrowing costs are increasingly linked to a business's environmental footprint, so TUI risks higher borrowing costs if transition is not in line with TUI's plan.

Reputational risks:

- Failure to meet customers' expectations in terms of TUI's transition to a net-zero model may result in a loss of customers.
- Failure to adapt to environmental factors could negatively impact the TUI brand and impact trading performance.

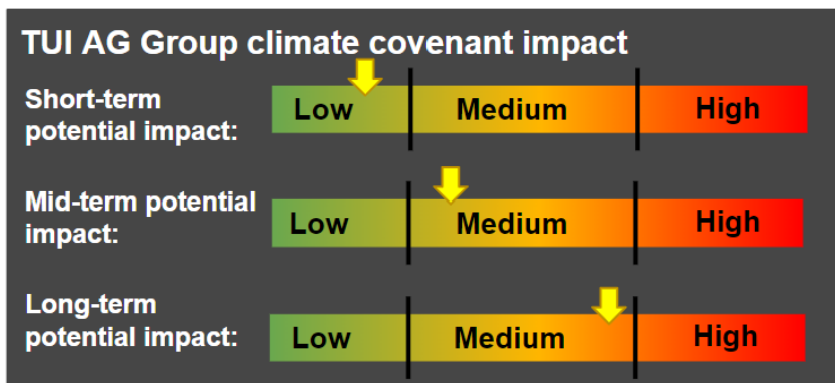
Section 2: Strategy

Covenant risk assessment (cont.)

Climate risk has the potential to significantly impact the Schemes' covenant, including future performance through reduced demand, higher operational costs and substantial capital expenditure requirements. This in turn could impact the covenant strength in relation to the potential impact on affordability for pension contributions, asset values and the Group's access to/cost of finance.

The Group has clear objectives and targets to ensure that it meets regulatory expectations. While it is progressing well against these and is ranked above some of its competitors by certain external ratings agencies, the cost of transition may be high over the medium term and there are risks to achieving TUI's interim 2030 targets which could have broader reputational and market impact.

Climate risks over the long term could be greater given the industry within which it operates.



Section 2: Strategy

Potential Trust impacts under each scenario – DC Section

The scenario analysis looked at the retirement outcomes (in terms of the size of retirement pots) for individual members of different ages who are invested in the Flexible Income Lifestyle Strategy (default for DC members), given this is where 74% of members were invested as at 31 March 2023.

- The analysis highlighted that members will be subject to climate risks to varying degrees. In addition to the impact over time on members' pots, the Trustee notes that market shocks for members near retirement can be particularly detrimental to their retirement and outcomes.
- In the short-term, older members who may retire within the next 5 years could see a sharp decrease in their benefits under a Net Zero Disorderly Transition, as their fund remains invested in return-seeking assets to some degree all the way to retirement, although the proportion decreases over time which helps to mitigate this risk. These members will not have sufficient time to recover from short-term market shocks before retirement.

- In the medium-term, members with 15 or more years until they retire are likely to see an impact on their retirement funds, either initially from a Net Zero Disorderly Transition, or later on under a Failed Transition scenario as the impacts of physical climate change impact their benefits during their period to retirement.
- In the long-term, younger members (aged 40 or under) would see the biggest detrimental impact to their benefits under a Failed Transition scenario and this impact could reduce the level of their benefits by 20% or more.

The Trustee believes that it is imperative to avoid a failed transition to prevent the worst effects of climate change being felt, as the strategy may not be as resilient in that event. The Trustee believes that it cannot do this by lowering the emissions of its investments in isolation; the whole world needs to lower emissions. The Trustee's focus therefore is to encourage fund managers to encourage companies to adopt a science-based net zero target.

Size of retirement pots

	Member aged 40	Member aged 50	Member aged 60
Approx starting pot	£29k	£18k	£26k
<i>Change relative to climate-uninformed outcome in brackets</i>			
Climate-uninformed outcome	£99k	£36k	£31k
Orderly Net Zero outcome	£89k (-10%)	£34k (-6%)	£30k (-2%)
Disorderly Net Zero outcome	£79k (-20%)	£31k (-14%)	£29k (-5%)
Failed Transition outcome	£71k (-29%)	£33k (-9%)	£31k (-1%)

Note: Member assumptions based on data provided by Standard Life as at 30 September 2022. Analysis generated using LCP Horizon Pro using climate scenarios at 30 June 2022 and market conditions as at 31 December 2022. Figures are rounded for £ impact, % change based on unrounded £ figures change. Further details of the modelling assumptions can be found in Appendix 1.

Section 3: Risk Management

How the Trustee monitors climate-related risks and opportunities

The Trustee has established various processes to identify, assess and manage climate-related risks and opportunities in relation to the different DB and DC Sections, and has integrated these within an overall risk register for the Trust. Below we set out some of the Trustee's processes for monitoring risks in more detail:

Monitoring within the Trust's wider risk management framework

Climate-related risk is specified within the Trustee's risk register to ensure risks are considered on a regular basis, and also in the context of wider risks to the Trust. The Trustee's intention is to monitor and integrate climate risks (alongside other risks) into the Trust's various investment mandates, and partially delegates the consideration of some climate-related matters to its investment, actuarial and covenant advisers as set out in the Climate Governance Statement.

The Trustee also considers climate risk within its integrated risk framework and, as part of this, periodically considers risks to the Trust's funding and covenant, supported by the Trustee's advisers. Further detail of the risk register, which monitors climate-related risks and opportunities alongside other investment risks, is set out later in this section.

Monitoring climate-related metrics and Section-specific targets

The metrics and targets that the Trustee uses to monitor climate-related risks and opportunities for the Sections are set out in Section 4.

Review of monitoring and governance framework

The Trustee will consider the processes and governance framework it has in place for identifying, assessing and monitoring climate-related risks and opportunities on a regular basis to ensure it remains appropriate and useful. The Trustee intends to review its Climate Governance Statement on an annual basis and ensures that it is amended as appropriate should its governance framework change.

Covenant risk monitoring

The Schemes' covenant advisor has advised that it will be important for the Trustee to monitor the impact of climate risks and review the progress of the Group against its sustainability agenda targets. This will include new policies published by the Group, to understand how the risk may be evolving over time.

The Trustee will monitor the sponsoring employer's approach to climate change through regular covenant reviews, regular covenant monitoring updates and discussions with the sponsoring employer. Whilst the sponsoring employer is taking action to mitigate both physical and transition climate risks, it is exposed to potential significant costs over short and longer terms. When assessing the sponsoring employer's covenant, the Trustee will ensure that climate risk has a specific focus. This will enable the Trustee to determine whether the sponsoring employer's risks relating to climate change could impact the level of support available. Details of the recent covenant assessment that took place within the Scheme year are set out in Section 2.

In assessing the risks, it was determined that there were no significant material risks arising in the near term (up to 2025).

It is expected that further detail will be published in the Group's FY23 results, due for release on 6 December 2023. The Schemes' covenant advisor will work with the Trustee to develop a proportionate climate risk monitoring approach to be included as part of its annual monitoring review going forwards.

Section 3: Risk Management

Monitoring advisers' and managers' investment practices

The Trustee sets objectives for its investment adviser and meets with the Trust's managers on a periodic basis. As part of these assessments, consideration is given to support the Trustee in managing climate-related risks and identifying opportunities. The investment adviser incorporates climate-related risks and opportunities into its review of the Schemes' investment strategies where possible and specifically proposed the Trustee introduces a more sustainable focus within its corporate bond mandates to better protect against long-term systematic climate-related risk and capture climate-related opportunities.

The Trustee also receives and reviews information about its investment managers' responsible investment credentials, including climate change mitigation, on a biennial basis. This information is provided by LCP and is based on proprietary manager research carried out by LCP. The Trust's investment adviser conducts engagement with the managers, encouraging them to improve their practices further and reports back to the Trustee periodically.

The 2022 Responsible Investment report and Review of managers' climate approaches report was presented by LCP, the Trustee's investment adviser. The report uses a "traffic light" system to show the managers' Responsible Investment ("RI") capabilities against a range of different factors which included climate specific responses to LCP's 2022 Responsible Investment ("RI") Survey. The report also provides a more detailed review of the climate credentials for the Trust's investment managers. These included factors such as: the use of climate tools to assess climate risks and opportunities (e.g., scenario modelling, metrics); commitments to climate goals (e.g. SBTi alignment, Net Zero targets); the quality and coverage of climate data provided; and evidence of stewardship and engagement on climate change.

In addition, the report provides fund and manager specific ratings, based on the specialist asset class and climate knowledge of LCP's manager research teams. The Trustee received an updated high-level review of managers' responsible investment and climate approaches in September 2023.

The assessments provided key information on the actions taken by the managers to integrate good climate practices into the running of their firms as well as the funds within which the Trust invests. Based on this review, there were no urgent actions for the Trustee in relation to shortfalls in responsible investment practices. Furthermore, it was assessed that the Trust's fund managers take a reasonable approach to net zero and climate practices and the Trustee used the output of the reviews to drive climate-related conversations with its investment managers over the year.

In response to the climate-related metrics and targets paper presented in September 2023 the Trustee agreed: for the targets to be communicated to managers and discuss its feasibility; and to continue to engage with managers and review their progress.

The reports also identified that all of the Trust's DC investment managers have signed up to the UK Stewardship Code with the exception of Standard Life, who the Trustee will monitor and encourage in terms of Stewardship and climate practice.

All of the Trust's DB investment managers have signed up to the UK Stewardship Code with the exception of Bain Capital, BentallGreenOak and Octopus Energy (who invest across the following asset classes: high yield debt and property). Two of these managers who are yet to sign up are based in the United States. Climate practices are generally lagging in private markets and some property managers, however the Trustee continues to encourage better practice on the part of these investment managers.

Section 3: Risk Management

Processes for identifying, assessing, and managing climate-related risks and opportunities

The Trustee has used climate scenario analysis to identify, assess and manage climate-related risks and opportunities. In particular, it has used the analysis to identify the time horizons over which physical risks and transition risks to Trust members could materialize.

Climate scenario analysis was carried out for the Trust in June 2023. Using the scenario analysis, the Trustee has considered what the possible impacts of climate change could be over short-, medium-, and long-term time horizons and whether its investment strategy, funding and covenant is likely to be resilient against these risks (or able to take advantage of any opportunities).

The Trustee will carry out scenario analysis at least every three years and check annually if the review should be carried out sooner.

The results of the analysis are fed into the integrated risk management of the DB Section through specific covenant, investment and DB funding focused considerations and the interaction of these.

The results for the DC Section will feed into the Trustee discussions and decisions on the default investment option and how members could be impacted at different ages over different time periods. Climate risk was considered as part of the triennial investment strategy review which took place in December 2022. The existing funds in the growth phase do not explicitly incorporate RI and climate risk, therefore a climate-tilted fund was looked at as an alternative in order to mitigate climate change risk in the growth phase. The output from this review is still being considered by the Trustee.

In August 2022, the Trust's actuarial adviser provided a summary of the impact of climate risks on longevity, covering for example, the potential economic and physical impacts.

Risk register

The Trustee updated the register during August 2022 to include a number of specific climate risks to ensure that the Trustee manages these as part of their regular risk reviews. The potential impacts identified in the risk register that arise from climate risks in the short-, medium- and long-term include:

- Potential financial impact on DB and DC investment returns because of investment managers' capability being insufficient to make climate-informed decisions in the short / medium term;
- Potential financial impact on DB and DC members retirement pots because of market and asset-class exposure to climate related risks, resulting in under funding due to eg market shocks or asset-specific risks (eg fossil fuels become worthless)
- Potential impact on the Company covenant due to transition and physical risks, eg market impacts due to extreme weather events impacting macroeconomic conditions and business disruption

The Trustee reviews the risks and opportunities regularly to ensure they are current, to assess any significant priority risks and opportunities to manage/embrace and to ensure regular action is maintained in monitoring and mitigating the risks identified.

The Trustee's current assessment, based on consideration of their impact and likelihood, is that climate-related risks are fairly low-risk for the Trust, relative to other risks, and should continue to be monitored using existing monitoring processes.

Section 3: Risk Management

How the Trustee manages climate-related risks and opportunities

Once the Trustee has identified and assessed the climate-related risks and opportunities for the Trust, it takes a number of different steps to manage these and uses a number of tools and metrics to assess these. These steps include:

- Maintaining strong governance processes and reviewing these regularly;
- Regularly reviewing risks as part of the Trust's integrated risk management approach;
- Ensuring that the Schemes' managers incorporate climate risks as part of their investment process;
- Considering whether the Schemes' investment managers support relevant climate initiatives;
- Considering climate-related risks as part of investment strategy discussions and investment manager appointments (when relevant);
- Monitoring metrics for measuring and assessing climate risk, and monitoring progress of them over time;
- Setting a specific target for one of the Schemes' climate metrics, and monitoring progress over time; and
- Exercising effective stewardship to encourage improved outcomes.

The Trustee integrates these risks and opportunities in the overall Trust's governance structure by including in the risk register, which is maintained by the Trustee as part of its holistic risk assessment process and reviewed at least annually to ensure that it remains up to date. The Trustee's advisers work together to ensure that climate risk is considered when joining up covenant, investment and funding risks.

Engagement and stewardship

The Trustee recognises that investment managers' climate competence and practices are crucial for managing the climate-related risks to the Trust's assets, so the Trustee assesses and monitors these on an ongoing basis. The Trustee is currently in the process of evolving its stewardship (eg engagement activity) and one of the aims of this evolution is to help manage climate-related risks to the Trust. The Trustee seeks to be a responsible steward of its assets. As part of this, it considers both the impact of ESG factors, including climate change, on the Trust's investments, and also, where it is consistent with their legal obligations, the impact of their investment practices on the economy, society and the environment to achieve the best long-term return on the Trust's assets whilst managing investment risks and taking account of financially relevant factors.

In particular, the Trustee has identified climate change as one of its stewardship priorities and communicated this to its investment managers in a letter in April 2023. Voting and engagement activities are delegated to the individual investment managers. Each manager has its own ESG policy, which includes assessment of climate-related risks and policies on voting on climate-related resolutions. The Trustee assesses and monitors the managers' voting and engagement policies and activities on an annual basis in the Trust's Implementation Statement.

In order to monitor how the individual investment managers are exercising their voting rights and undertaking engagement on behalf of the Trust, the Trustee meets with its investment managers when possible, to engage with them on how they have considered ESG issues (including climate change) within their stewardship activities and will seek to challenge the investment managers on these matters where they think this is in the best interests of members.

More information on the Trustee's stewardship activities can be found in the Trust's Implementation Statement.

Section 4: Metrics and Targets

Metrics agreed to track for TCFD

The Trustee has chosen four climate-related metrics to help it monitor climate-related risks and opportunities relevant to the Trust. These are listed below and reported on the following pages (as far as the Trustee was able to obtain the data).

The Trustee chose to report these metrics as they are recommended in the Department for Work and Pensions (DWP) statutory guidance.

The metrics and targets are also based on historical data and forward-looking scenarios (science-based targets) that reflect the potential impacts of different climate outcomes on the Trust's assets, liabilities, funding, and investment strategy, for example portfolio alignment is a key part of the Institutional Investors Group on Climate Change Net Zero Investment Framework, so a science-based target would support any net zero commitment the Trustee decides to make in future.

Metric	High-level methodology
Metric 1: Absolute emissions (Total greenhouse gas emissions – Scope 1 & 2)	The sum of each company's most recent reported or estimated greenhouse gas emissions attributable to the Trust's investment in the company, where data is available. Emissions are attributed evenly across equity and debt investors. Reported in tonnes of CO ₂ equivalent. This methodology was chosen because it is in line with the statutory guidance.
Metric 2: Emissions intensity (Carbon footprint)	The total greenhouse gas emissions described above, divided by the value of the invested portfolio in £m, adjusted for data availability. Emissions are attributed evenly across equity and debt investors. Reported in tonnes of CO ₂ equivalent per £1m invested. This methodology was chosen because it is in line with the statutory guidance.
Metric 3: Portfolio alignment (Science-based targets)	The proportion of the portfolio by weight of holdings with science-based targets to reduce their greenhouse gas emissions, demonstrated by a target validated by the Science Based Targets initiative (SBTi) or equivalent. This measures the extent to which the Trust's investments are aligned to the Paris Agreement goal of limiting global average temperature rises to 1.5°C. Reported in percentage terms. The Trustee chose this "binary target" measure because it is the simplest and most robust of the various portfolio alignment metrics available.
Metric 4: Additional climate change metric (Data quality)	The proportion of the portfolio for which greenhouse gas emissions data is verified, reported, estimated or unavailable. "Verified" emissions refers to data reported by the emitting company and verified by a third party. "Reported" emissions are reported by the emitting company but not verified. This approach was chosen because it is in line with the statutory guidance.

Section 4: Metrics and Targets – DB Section

The data below has been calculated using portfolio holdings as at 31 March 2023 (unless otherwise stated), using the most recent data available from the Trust's investment managers at that time. The table below shows the asset allocation of the Trust's assets. The table on the next page sets out the data the Trustee was able to collect from its investment managers on each of the four chosen metrics.

The Trustee has been unable to obtain data in certain instances which has prevented it from calculating certain metrics and identifying some potential impacts, with reasons shown below. Most of the Trust's investment managers are seeking to improve their climate-related reporting by increasing the number of metrics they report and seeking to fill the data gaps (please see Appendix 4). The Trustee expects data coverage and quality to improve over time.

	Asset class (% assets)			Details of missing data or estimations
	BAL	TUI	TAPS	
Property, private credit and alternatives¹	22%	42%	-	Climate data is typically low for property funds due to lower disclosure requirements, greater complexity associated with the asset class and that tenants are not required to provide emissions data to fund managers. For private credit and alternatives, data gaps exist primarily due to lower disclosure requirements, a lack of resources and responsible investment practices that lag public market strategies.
LDI	21%	53%	-	Calculated by the investment adviser, LCP. Government bond metrics are calculated on a different basis to other mandates, so cannot be compared with them. See Appendix 2 for more information.
Corporate bonds	7%	2%	-	Coverage on buy & maintain credit is generally good at c75%. Data gaps are typically due to some companies in the portfolio that are smaller or mid-sized do not have the same resources as larger companies and some borrowers that feature in portfolios are in industries that have lagged on climate exposures. See Appendix 2 for more information.
Asset-backed securities	2%	3%	-	Asset-backed securities coverage data is difficult to obtain.
Cash	-	<1%	4%	Omitted as there is no climate-related data available due to the nature of cash type assets.
Buy-ins	48%	-	96%	Based on annuity portfolio data provided by Legal & General, excluding cash and derivatives. See Appendix 2 for more information.

As at 31 March 2023, emissions data coverage is around 70% of the overall Trust's assets and around 55% excluding TAPS and buy-in policies.

Figures may not sum due to rounding.

¹ Includes TUI and BAL's share of the CIF

Section 4: Metrics and Targets – DB Section

BAL Scheme - Scope 1+2 emission metrics collected

Portfolio emissions coverage	<75%	75%-90%	>90%
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Manager	Portfolio	Market value as at 31 March 2023 (exposure) ¹	Total coverage (Scope 1 and 2)	Metric 1	Metric 2	Metric 3	Metric 4	Source
				1. Total emissions (tonnes CO ₂ e) ²	2. Carbon footprint (tonnes CO ₂ e per £m invested) ²	3. Portfolio alignment (SBTi) ²	4. Data quality (% reported / estimated / unavailable) ²	
Bain Capital	High Income Strategy	£1.7m / 0.4%		<i>Omitted on materiality grounds</i>				
Columbia Threadneedle	TPUT ³	£16.7m / 3.4%	86%	141	10	N/A	77 / 9 / 14	Manager
Invesco	Real Estate UK Residential Fund ³	£17.6m / 3.6%	92%	60	4	N/A	92 / 0 / 8	Manager
Octopus	Healthcare Fund ³	£15.2m / 3.1%	99%	131	9	N/A	99 / 0 / 1	Manager
Insight	LDI ⁴	£191.8m / 39.1%	100%	68,485	175	100%	100 / 0 / 0	Manager ⁵
Invesco	Buy & Maintain Credit 2020-2035 Fund	£15.7m / 3.2%	77%	849	70	46%	66 / 12 / 23	LCP ⁶
	Buy & Maintain Credit 2030-2050 Fund	£39.3m / 8.0%	80%	1,667	53	44%	69 / 11 / 20	LCP ⁶
Legal and General	Buy-in ⁷	c£440m as at 30 September 2022	100%	330	75	19%	100 / 0 / 0	Manager
	CIF Secured Income Sub-Portfolio	£177.8m / 37.3%		<i>BAL owns c46% of the CIF - refer to CIF table for further details</i>				

Figures may not sum due to rounding.

¹ % of Scheme assets excludes the value of the buy-in.

² Figures relate only to the assets for which data is available and only cover scope 1 and 2. Total emissions are for the Scheme's assets, not the whole pooled fund where one is used. We calculated total carbon emissions as at the latest available date using the tonnes CO₂e per £1 million multiplied by assets as at that same date.

³ SBTi targets are not applicable to property assets. The emissions figures are operational emissions only (ie not emissions related to construction and development activities). Emissions figures relating to tenant electricity use are location-based, ie calculated using the average emissions intensity of the electricity grid where the property is located.

⁴ In calculating metrics for your LDI exposure, greenhouse gas emissions have been calculated for the gilt exposure (including via repo and / or TRS). This is in line with our understanding of the typical interpretation of the DWP guidance by investment managers and consultancies as not requiring estimation of emissions for swap exposures at this time.

⁵ Gilts metrics are calculated on a different basis to other mandates shows, so cannot be compared with them. Total greenhouse gas emissions have been calculated as {"value of your investment in gilts" divided by "value of the UK's public debt"} multiplied by "total greenhouse gas emissions produced in the UK" using publicly available data sources. The carbon footprint has been calculated as "total greenhouse gas emissions produced in the UK" divided by "value of the UK's public debt". This is a measure of the UK's reliance on greenhouse emissions. There can be issues of double counting across the portfolio where UK country emissions double count UK company emissions already accounted for within the credit portfolio.

⁶ Source: LCP climate dashboard based on certain information or ©2023 MSCI ESG Research LLC. Reproduced by permission.

⁷ Legal and General has provided data for its annuity portfolio excluding cash and derivatives. It uses proxies where complete data is not available, but would not provide information on the proportion of data that is estimated. The Scheme's total emissions have been estimated as the carbon footprint per £m invested multiplied by the value of the Scheme's policy. For sovereign bonds, a normaliser has been used consistent with EVIC for corporate bonds and equities. The policy value has been calculated as at 30 September 2022 from the Scheme Report and Accounts. The science-based targets metric is the proportion of companies whose targets had been validated by the SBT initiative using the latest data available in July 2022, for portfolio holdings as 31 December 2021.

Section 4: Metrics and Targets – DB Section

TUI UK Scheme - Scope 1+2 emission metrics collected

Portfolio emissions coverage	<75%	75%-90%	>90%
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Manager	Portfolio	Market value as at 31 March 2023 (exposure)	Total coverage (Scope 1 and 2)	Metric 1	Metric 2	Metric 3	Metric 4	Source
				1. Total emissions (tonnes CO2e) ¹	2. Carbon footprint (tonnes CO2e per £m invested) ¹	3. Portfolio alignment (SBTi) ¹	4. Data quality (% reported / estimated / unavailable) ¹	
Bain Capital	High Income Fund	£41.8m / 6.1%	34%	1,785	125	4%	8 / 26 / 66	Manager
Columbia Threadneedle	TPUT ²	£20.3m / 2.9%	86%	171	10	N/A	77 / 9 / 14	Manager
Invesco	Real Estate UK Residential Fund ²	£21.3m / 3.1%	92%	72	4	N/A	92 / 0 / 8	Manager
Octopus	Healthcare Fund ²	£18.4m / 2.7%	99%	158	9	N/A	99 / 0 / 1	Manager
Insight	LDI ³	£359.1m / 52.2%	100%	133,388	175	100%	100 / 0 / 0	Manager ⁴
CBRE	Property	£5.0k ⁵				Omitted on materiality grounds		
Invesco	Buy & Maintain Credit	£5.0m / 0.7%				Omitted on materiality grounds		
	CIF Secured Income Sub-Portfolio	£208.8m / 31.2%				TUI UK owns c54% of the CIF - refer to CIF table for further details		

Figures may not sum due to rounding.

¹ Figures relate only to the assets for which data is available and only cover scope 1 and 2. Total emissions are for the Scheme's assets, not the whole pooled fund where one is used. We calculated total carbon emissions as at the latest available date using the tonnes CO2e per £1 million multiplied by assets as at that same date.

² SBTi targets are not applicable to property assets. The emissions figures are operational emissions only (ie not emissions related to construction and development activities). Emissions figures relating to tenant electricity use are location-based, ie calculated using the average emissions intensity of the electricity grid where the property is located.

³ In calculating metrics for your LDI exposure, greenhouse gas emissions have been calculated for the gilt exposure (including via repo) but not the swap positions. This is line with our understanding of the typical interpretation of the DWP guidance by investment managers and consultancies as not requiring estimation of emissions for swap exposures at this time.

⁴ Gilts metrics are calculated on a different basis to other mandates shows, so cannot be compared with them. Total greenhouse gas emissions have been calculated as {"value of your investment in gilts" divided by "value of the UK's public debt"} multiplied by "total greenhouse gas emissions produced in the UK" using publicly available data sources. The carbon footprint has been calculated as "total greenhouse gas emissions produced in the UK" divided by "value of the UK's public debt". This is a measure of the UK's reliance on greenhouse emissions. There can be issues of double counting across the portfolio where UK country emissions double count UK company emissions already accounted for within the credit portfolio.

⁵We have not provided the Scheme's % exposure to CBRE Property as at 31 March 2023 as this figure is immaterial.

Section 4: Metrics and Targets – DB Section

CIF Secured Income Sub-Portfolio - Scope 1+2 emission metrics collected

Portfolio emissions coverage	<75%	75%-90%	>90%
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Manager	Portfolio	Market value as at 31 March 2023 (exposure)	Total coverage (Scope 1 and 2)	Metric 1	Metric 2	Metric 3	Metric 4	Source
				1. Total emissions (tonnes CO2e) ¹	2. Carbon footprint (tonnes CO2e per £m invested) ¹	3. Portfolio alignment (SBTi) ¹	4. Data quality (% reported / estimated / unavailable) ¹	
Aegon	SDC Segregated mandate	£21.4m	33%	397	57	19%	33 / 0 / 67	LCP ²
Alcentra	European Direct Lending Fund II	£18.6m	51%	92	10	0%	39 / 11 / 49	Manager
BentallGreenOak	UK Secured Lending Fund II	£31.4m				Did not provide data		
Hayfin	Direct Lending Fund II	£15.6m				Did not provide data		
	Senior Debt Partners Fund III	£51.3m				Did not provide data		
ICG	Senior Debt Partners Fund IV	£17.8m	100%	342	18	N/A	24 / 76 / 0	Manager
	Senior Debt Programme III	£78.2m	100%	1,327 ³	16	N/A	0 / 100 / 0	Manager
Insight	High Grade ABS Fund	£35.1m				Did not provide data		
LaSalle	Real Estate Debt Strategies III	£21.5m	2%	5	10	0%	0 / 2 / 98	Manager
L&G	LPI Income Property Fund	£90.1m				Did not provide data		
Securis	Non-Life Fund	£5.6m				Omitted on materiality grounds		

<p>March 2023 estimated % split of assets BAL: 46% TUI UK: 54%</p>

Figures may not sum due to rounding.

¹ Figures relate only to the assets for which data is available and only cover scope 1 and 2. Total emissions are for the whole CIF pooled fund and the BAL and TUI UK Scheme's proportion of the emissions can be calculated using the estimated CIF proportions held by each of the Schemes as at 31 March 2023.

² Source: LCP climate dashboard based on certain information ©2023 MSCI ESG Research LLC. Reproduced by permission.

³ Estimated using Fund's local currency (€) converted to GBP using 31/03/2023 exchange rate.

Section 4: Metrics and Targets – DB Section

Portfolio emissions coverage	<75%	75%-90%	>90%
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TAPS Scheme - Scope 1+2 emission metrics collected

Manager	Portfolio	Market value as at 31 March 2023 (exposure)	Total coverage (Scope 1 and 2)	Metric 1	Metric 2	Metric 3	Metric 4	Source
				1. Total emissions (tonnes CO2e) ¹	2. Carbon footprint (tonnes CO2e per £m invested) ¹	3. Portfolio alignment (SBTi) ¹	4. Data quality (% reported / estimated / unavailable) ¹	
Legal and General	Buy in ²	£116.3m as at 30 September 2022	100%	90	75	19%	100 / 0 / 0	Manager
Insight	Liquidity Plus Fund	£4.6m		<i>Omitted on materiality grounds</i>				

Figures may not sum due to rounding.

¹ Figures relate only to the assets for which data is available and only cover scope 1 and 2. Total emissions are for the Scheme's assets, not the whole pooled fund where one is used. We calculated total carbon emissions as at the latest available date using the tonnes CO2e per £1 million multiplied by assets as at that same date.

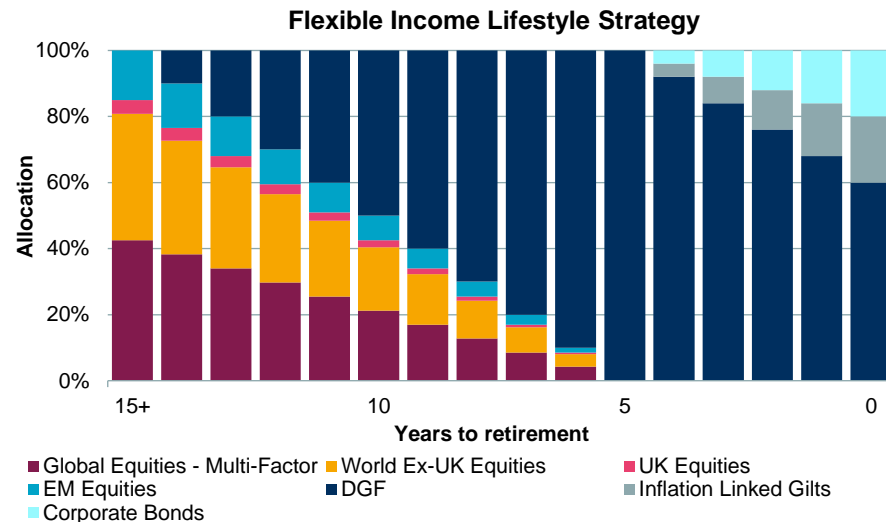
² Legal and General has provided data for its annuity portfolio excluding cash and derivatives. It uses proxies where complete data is not available, but would not provide information on the proportion of data that is estimated. The Scheme's total emissions have been estimated as the carbon footprint per £m invested multiplied by the value of the Scheme's policy. For sovereign bonds, a normaliser has been used consistent with EVIC for corporate bonds and equities. The policy value has been calculated as at 30 September 2022 from the Scheme Report and Accounts. The science-based targets metric is the proportion of companies whose targets had been validated by the SBT initiative using the latest data available in July 2022, for portfolio holdings at 31 December 2021.

Section 4: Metrics and Targets – DC Section

Metrics

Metrics are required to be calculated in relation to each “popular arrangement” within the Trust. The Trustee considers the DC Scheme’s main default Flexible Income Lifestyle to be the only popular arrangement.

The majority of assets are invested in the main default strategy, with the assets allocated depending on members’ expected retirement dates, as shown in the chart on the right. As at 31 March 2023, 74% of members were invested in this strategy. The remaining assets are invested in a range of alternative lifestyle strategies and self-select funds. 11% of members are invested in the DB AVC default Lump Sum Lifestyle, however this is made up of the same underlying components of the main default, but with the addition of the Standard Life Deposit and Treasury Fund. The largest self-select fund allocation, not within a lifestyle strategy, was c1.5% (£0.6m) to the HSBC Islamic Global Equity Fund. The Trustee has not collected metrics for the self-select funds as it did not feel it was proportionate to do so. This is in line with the guidance issued by the DWP.



Equities make the most significant contribution to climate risk in the DC Scheme, both as a result of equities being one of the assets most strongly impacted by climate risk and given the high allocation in the default strategy. The Trusts’s bond and multi-asset funds contribute a smaller proportion of the Scheme’s total emissions.

The proportion of holdings with SBTi portfolio alignment targets is also highest for the Trusts’s equity funds (higher is better). The Trustee has a long-term target related to this metric which is shown on page 33.

Coverage for eligible assets will not always be 100%. Reasons for this include a particular company not publishing its carbon emissions data, or the correct mapping not being found between a bond and its parent company to apply the correct carbon data to the correct company. The Trustee has reported coverage of metrics where the investment managers disclose this information and continues to liaise with them to address limitations in coverage of different asset classes.

Reported climate data was only available for listed equity (61% of the Trust’s DC assets), corporate bonds (2%) and multi-asset investments (26%) within the default. Any climate data reported in respect of government bonds (1% of DC assets) will be entirely estimated as the UK Government does not report this at present. The Trustee, with help from its investment adviser, continues to work with the Trust’s investment managers to improve data reporting over time. The Trustee considers both risks and opportunities related to carbon metrics when reviewing its investments.

Section 4: Metrics and Targets – DC

DC Section - Scope 1+2 emission metrics collected

Portfolio emissions coverage	<75%	75%-90%	>90%
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Manager		Assets at 31 March 2023 / % of total DC section assets	Coverag e ²	Metric 1	Metric 2	Metric 3	Metric 4	Source
				Emissions (tonnes CO ₂ e) ^{1,2}	Carbon footprint (tonnes CO ₂ e per £m invested) ^{1,2}	SBTi alignment % targets set ²	Data quality (% reported / estimated / unavailable) ²	
BlackRock	Multifactor equities	£8.9m / 23.2%	99%	901	102	29%	76 / 23 / 1	LCP Climate dashboard
Standard Life (BlackRock)	World ex UK equities	£9.0m / 23.4%	98%	709	80	42%	84 / 14 / 2	LCP Climate dashboard
BlackRock	UK equities	£2.8m / 7.2%	91%	283	112	44%	82 / 8 / 10	LCP Climate dashboard
BlackRock	Emerging market equities	£2.9m / 7.4%	93%	499	187	14%	73 / 20 / 7	LCP Climate dashboard
BlackRock	Diversified growth	£10.1m / 26.1%	24%	114	47	7%	18 / 6 / 76	LCP Climate dashboard
BlackRock	Corporate bonds	£0.7m / 1.8%	50%	15	44	25%	45 / 5 / 50	LCP Climate dashboard
Vanguard	Inflation linked gilts ³	£0.5m / 1.3%	100%	90	181	100%	100 / 0 / 0	LCP calculations

The above analysis pertains only to the underlying funds of the default lifestyle of the DC section, the Flexible Income Lifestyle. As at 31 March 2023, 74% of members were invested in the default lifestyle. The above funds are also available on a self-select basis so the above figures capture a proportion of the self-selecting membership. As a result, 90.4% of the assets in the DC section of the Trust have been included in our analysis. The remaining self-select and alternative lifestyle funds have been omitted on materiality grounds, due to the small proportion of assets invested in them.

Assets sourced from Standard Life. ¹Figures relate only to the assets for which data is available. Total emissions are for the Fund's assets, not the whole pooled fund. ²Source: Certain information ©2022 MSCI ESG Research LLC. Reproduced by permission. ³Gilt metrics are calculated on a different basis to other funds shown, so cannot be compared with them. Total greenhouse gas emissions have been calculated as ("value of your investment in gilts" divided by "value of the UK's public debt") multiplied by "total greenhouse gas emissions produced in the UK" using publicly available data sources. The carbon footprint has been calculated as "total greenhouse gas emissions produced in the UK" divided by "value of the UK's public debt". This is a measure of the UK's reliance on greenhouse emissions. There can be issues of double counting across the portfolio where UK country emissions double count UK company emissions already accounted for within the credit portfolio.

Section 4: Metrics and Targets

Target

The Trustee has set the following SBTi and data coverage targets:

	Target	Assets in scope	Reference base date
DB Section	BAL and TUI UK: To increase SBT alignment to 65% and 45% respectively by 31 March 2028 for corporate bonds, from baseline levels.	Corporate bonds	31 March 2023
DC Section	Increase coverage to the below by 31 March 2028: <ul style="list-style-type: none"> • 60% for equities from baseline level of 34% • 30% for DGFs from baseline level of 7% • 50% for corporate bonds from baseline level of 25% 	Listed equities, diversified growth funds and corporate bonds	31 March 2023

These targets were chosen as the Trustee ultimately made the decision that a forward-looking alignment target with a 1.5°C pathway (DB section) and a coverage-based target (DC section) would be better suited to manage climate related risks for the Trust than an emissions-based target, which may not be useful given the low coverage at present and the volatility of the data. The proposed target levels are based on an estimated conservative c5% pa rate for improvement for SBT alignment and data coverage.

See Appendix 2 for the methodology using MSCI data and information provided by managers to measure performance against the SBT alignment and data coverage targets. The Trust expects to use available data from research providers and asset managers to measure progress towards the target each year and consider whether additional steps are needed to increase the chance of meeting these targets.

Initial performance against the target

The climate analysis carried out for the Trust during the year included an assessment of the current alignment with the targets. The analysis enabled the Trustee to identify the most appropriate funds and managers to focus its engagement on, which would result in the most significant improvement in the Trust's alignment with its targets.

The baseline SBT alignment across corporate bonds in the DB Section was low (40% and 19% respectively for BAL and TUI UK), whilst the baseline coverage for the DGFs and corporate bonds in the DC Section was also particularly low, compared to their respective targets. The Trustee noted scope for improvement in these asset classes relative to their respective baseline levels.

The following steps are being taken to achieve the SBT alignment target:

- The Trustee, with help from its investment consultant, will communicate the targets to Invesco, its corporate bond manager for the DB Section.
- The Trustee has also identified some of its illiquid asset class managers as specific targets for engagement to improve on data quality as a large gap exists in this area.

The following steps are being taken to achieve the data coverage target:

- The Trustee, with help from its investment consultant, will communicate the data coverage targets to BlackRock and Standard Life for the DC Section in relation to the DGF, corporate bonds and equities.
- Investment managers are routinely invited to present at Trustee meetings as part of the existing monitoring process. When meeting with the investment managers, the Trustee will ask the manager how it expects data coverage to improve over time and encourage the manager to evolve its data collection and reporting practices.

Appendix 1 – Climate scenario Analysis

The key features of each of the climate scenarios considered (which are listed in no particular order of likelihood) are summarised in the table below.

Scenarios:	Failed Transition	Orderly Net Zero by 2050	Disorderly Net Zero by 2050
Low carbon policies	Continuation of current low carbon policies and technology trends (eg significant falls in renewable energy prices)	Ambitious low carbon policies, high investment in low carbon technologies and substitution away from fossil fuels to cleaner energy sources and biofuel. Carbon Capture and Storage also used to achieve global net zero by 2050	
Paris Agreement outcome	Paris Agreement goals not met	Global net zero achieved by 2050; Paris Agreement goals met	
Global warming	Average global warming is about 2°C by 2050 and over 4°C by 2100, compared to pre-industrial levels	Average global warming stabilises at around 1.5°C above pre-industrial levels	
Physical impacts	Severe physical impacts	Moderate physical impacts	
Impact on GDP	Global GDP is significantly lower than the climate-uninformed scenario in 2100. For example, UK GDP in 2100 predicted to be almost 50% lower than in the climate-uninformed scenario	Global GDP is lower than the climate-uninformed scenario in 2100. For example, UK GDP in 2100 predicted to be about 5% lower than in the climate-uninformed scenario	In the long term, global GDP is slightly worse than in the Paris Orderly scenario due to sentiment shock.
Financial market impacts	Physical risks priced in over the period 2026-2030. A second repricing occurs in the period 2036-2040 as investors factor in the severe physical risks	Transition and physical risks priced in smoothly over the period of 2022-2025	Abrupt repricing of assets and a sentiment shock to the financial system in 2025

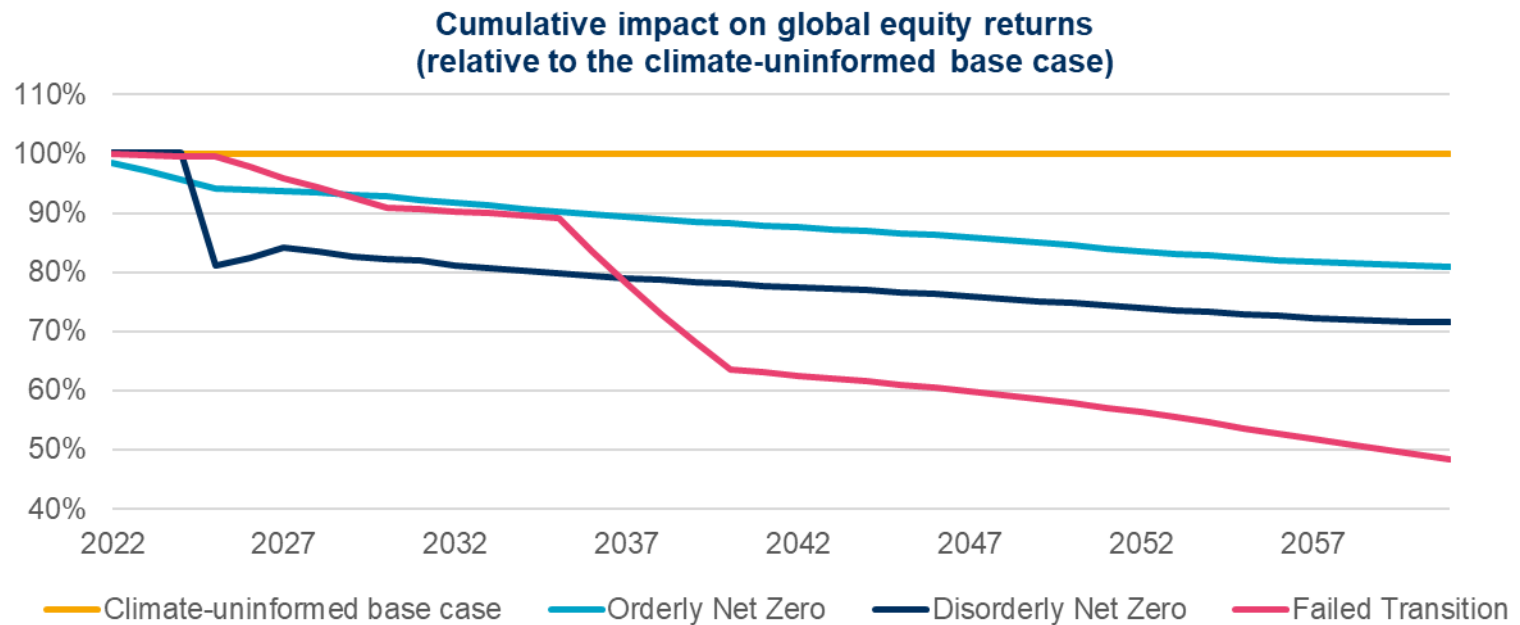
Source: Ortec Finance. Figures quoted are medians. Modelling as at 30 June 2022. The scientific and policy aspects of the modelling are based on information as at 31 December 2021.

* Failed Transition is scenario where Global Net Zero not reached; only existing climate policies are implemented

Appendix 1 – Climate Scenario Analysis

The climate scenarios considered by the Trustee

This chart shows cumulative equity returns under the scenarios. Looking at this, you can see how financial markets could be significantly impacted by climate change, especially over the long term.



Appendix 1 – Climate Scenario Analysis

Modelling approach

- The scenario analysis is based on a model developed by Ortec Finance and Cambridge Econometrics. The outputs were then applied to the Trust's assets by LCP.
- The three climate scenarios are projected year by year, over a 40-year period. The results are intended to help the Trustee to consider how resilient the DB strategies and DC default strategy are to climate-related risks.
- The three climate scenarios chosen are intended to be plausible narratives of how the future could unfold. They are only three scenarios out of countless others which could be considered.
- Other scenarios could give better or worse outcomes for the Trust.

Modelling limitations

- As this is a “top-down” approach, investment market impacts were modelled as the average projected impacts for each asset class. This contrasts with a “bottom up” approach that would model the impact on each individual investment held by the default strategy. As such, the modelling does not require extensive scheme-specific data and so the Trustee was able to consider the potential impacts of the three climate scenarios for all of the DB Schemes and DC assets in the default strategy.
- In practice, the Schemes' investments may not experience climate impacts in line with the market average.
- The asset and liability projections shown reflect the current strategic journey plan. No allowance is made for changes that might be made to the funding or investment strategies as the climate pathways unfold, nor for action to be taken in response to the Trust achieving its long-term funding targets.
- Like most modelling of this type, the modelling does not allow for all potential climate-related impacts and, therefore, is quite likely to underestimate some climate-related risks. For example, tipping points (which could cause runaway physical climate impacts) are not modelled and no allowance is made for knock-on effects, such as climate-related migration and conflicts.
- In addition, the model presumes that the UK government and bank counterparties will remain solvent, thereby making no allowance for credit risk on government bonds and derivative exposures. However, in a scenario where global warming exceeds 4°C, this assumption may no longer be valid.
- Medians from Ortec Finance's model outputs are used to project forward assets and liabilities, which means the results reflect the model's “middle outcomes” for investment markets under the three scenarios. Allowing for market volatility would result in better or worse model outputs than shown. Investment markets may be more volatile in future as a result of physical and transition risks from climate change, and this is not illustrated in the modelling shown.
- The BAL and TAPS Schemes currently have insurance contracts covering a significant proportion of the DB benefits payable to pensioners. As these contracts exactly match the DB benefits payable to members, it has been excluded from the analysis. The Trustee considered qualitatively how insurance contracts might be affected by climate risk.

Appendix 1 – Climate Scenario Analysis

Modelling approach – more details

- The scenario analysis is based on the ClimateMAPS model developed by Ortec Finance and Cambridge Econometrics, and was then applied to the Trust’s assets and liabilities by LCP. The three climate scenarios were projected year by year, over the next 40 years.
- ClimateMAPS uses a top-down approach that consistently models climate impacts on both assets and liabilities, enabling the resilience of the DB Schemes’ funding strategies to be considered. The model output is supported by in-depth narratives that bring the scenarios to life to help the Trustee’s understanding of climate-related risks and opportunities.
- ClimateMAPS uses Cambridge Econometrics’ macroeconomic model which integrates a range of social and environmental processes, including carbon emissions and the energy transition. It is one of the most comprehensive models of the global economy and is widely used for policy assessment, forecasting and research purposes. The outputs from this macroeconomic modelling – primarily the impacts on country/regional GDP – are then translated into impacts on financial markets by Ortec Finance using assumed relationships between the macroeconomic and financial parameters.
- Ortec Finance runs the projections many times using stochastic modelling to illustrate the wide range of climate impacts that may be possible, under each scenario’s climate pathway. LCP takes the median (ie the middle outcome) of this range of impacts, for each relevant financial parameter, and adjusts it to improve its alignment with LCP’s standard financial assumptions.
- LCP then uses these adjusted median impacts to project the assets and liabilities of the Schemes to illustrate how the different scenarios could affect funding levels. The modelling summarised in this report used scenarios based on the latest scientific and macro-economic data at 30 June 2022, calibrated to market conditions at 31 December 2022.
- The modelling included contributions assumed to be paid in line with the current Schedule of Contributions, and the Trustee discussed how future planned changes to the investment strategies for the DB Schemes and DC Section would change the analysis. For the DC Section, members’ starting pots values were assumed to equal the average value for Scheme members of their age, and member and employer contributions were assumed to be paid in line with the current contribution structure. No allowance was made for changes to the investment strategy or contributions in response to the climate impacts modelled.
- As this is a “top-down” approach, investment market impacts were modelled as the average projected impacts for each asset class, ie assuming that the Schemes’ investments are affected by climate risk in line with the market-average portfolio for the asset class. This contrasts with a “bottom up” approach that would model the impact on each individual investment held in the Schemes’ investment portfolios. As such, it does not require extensive scheme-specific data and so the Trustee was able to consider the potential impacts of the three climate scenarios for all of the Schemes’ assets.

Appendix 1 – Climate Scenario Analysis

Modelling approach – more details

- In practice, the Trust's investment portfolios may not experience climate impacts in line with the market average. The Trustee considers, on an ongoing basis, how the Trust's climate risk exposure differs from the market average using climate metrics (which are compared with an appropriate market benchmark).
- Uncertainty in climate modelling is inevitable. In this case, key areas of uncertainty relating to the financial impacts include how climate change might affect interest rates and inflation, and the timing of market responses to climate change. ClimateMAPS, like most modelling of this type, does not allow for all climate-related impacts and therefore, in aggregate, is quite likely to underestimate the potential impacts of climate-related risks, especially for the Failed Transition scenario. For example, tipping points (which could cause runaway physical climate impacts) are not modelled and no allowance is made for knock-on effects, such as climate-related migration and conflicts.

Appendix 1 – Climate Scenario Analysis

- LCP’s modelling is designed to illustrate, for each climate scenario and the default lifestyle strategy, the development of a typical member’s fund value.
- The key investment assumptions behind our modelling are set out overleaf.
- These assumptions are used within our modelling to determine:
 - the expected fund at retirement and various measures of the risk of achieving this; and
 - the pension the member could buy and various measures of the risk of achieving this.
- We also assume 2.5% pa real increases in DC members’ salaries. Our output is shown in real terms.
- Our assumptions for the long-term expected annual return and expected standard deviation of the annual returns for each asset class or investment are set out overleaf.
- The expected return assumptions are geometric average long-term annual figures.
- The assumptions are intended to be best estimates; this means for each assumption there is a 50 / 50 chance that the observed value will be either higher, or lower, than assumed. The return assumptions have been reduced to allow for the typical investment management fees required to invest in each asset class.
- The climate-uninformed expected return assumptions for cash, gilts, index-linked gilts, corporate bonds, high yield debt, emerging market debt and asset-backed securities are based on observed market yields as at 31 December 2022. Other climate-uninformed assumptions have been set by:
 - looking at analyses of historical information;
 - taking into account the views of a number of investment organisations; and
 - making pragmatic judgements.

Appendix 1 – Climate Scenario Analysis

Asset class returns – 31 December 2022

Expected return (% pa)	Climate uninformed based case			Orderly Net Zero			Disorderly Net Zero			Failed Transition		
	5 years	10 years	40 years	5 years	10 years	40 years	5 years	10 years	40 years	5 years	10 years	40 years
Money market cash	3.7%	3.8%	3.5%	3.7%	3.9%	3.5%	3.7%	3.9%	3.5%	3.6%	3.8%	3.4%
Fixed interest gilts (18 years)	3.7%	3.8%	3.5%	3.5%	3.7%	3.6%	3.7%	3.7%	3.6%	3.7%	3.8%	3.5%
Index-linked gilts (23 years)	3.7%	3.8%	3.5%	3.7%	3.9%	3.6%	4.0%	4.0%	3.6%	3.6%	3.8%	3.6%
Investment grade corporate bonds (8 years)	5.1%	5.2%	4.9%	4.9%	5.2%	4.9%	4.9%	5.2%	4.9%	5.0%	5.1%	4.9%
Investment grade (ex-BBB) corporate bonds (8 years)	4.7%	4.8%	4.5%	4.5%	4.8%	4.5%	4.5%	4.8%	4.5%	4.6%	4.7%	4.5%
IG ex-BBB Corp bonds FRN	4.7%	4.8%	4.5%	4.7%	4.8%	4.5%	4.7%	4.8%	4.5%	4.7%	4.8%	4.4%
IG Corp bonds FRN	5.1%	5.2%	4.9%	5.1%	5.3%	4.9%	5.1%	5.3%	4.9%	5.1%	5.2%	4.9%
Short duration credit FRN	5.8%	5.9%	5.6%	5.7%	5.9%	5.6%	5.9%	5.9%	5.6%	5.7%	5.9%	5.6%
IG Corp bonds 15Y+ FRN	5.1%	5.2%	4.9%	5.1%	5.3%	4.9%	5.1%	5.3%	4.9%	5.1%	5.2%	4.9%
UK equities	8.0%	8.1%	7.8%	7.0%	7.7%	7.5%	4.9%	6.7%	7.2%	7.5%	7.2%	6.3%
Overseas equities	8.0%	8.1%	7.8%	6.6%	7.2%	7.3%	3.8%	5.9%	6.9%	7.5%	7.0%	5.9%
Overseas equities (currency hedged)	7.9%	8.0%	7.7%	6.7%	7.4%	7.4%	4.0%	6.1%	7.1%	7.4%	6.9%	6.0%
Global equities	8.0%	8.1%	7.8%	6.6%	7.2%	7.3%	3.9%	6.0%	6.9%	7.5%	7.0%	5.9%
Emerging markets equities	9.1%	9.2%	8.9%	8.3%	8.7%	8.3%	4.9%	7.2%	8.0%	8.6%	8.3%	6.6%
Private equity	9.0%	9.1%	8.8%	7.5%	8.4%	8.4%	4.7%	7.3%	8.1%	8.4%	7.8%	6.6%
High yield debt	6.4%	6.5%	6.2%	6.1%	6.5%	6.1%	6.0%	6.5%	6.1%	6.1%	6.4%	6.1%
Emerging market debt	6.3%	6.4%	6.1%	6.1%	6.2%	6.0%	6.3%	6.2%	6.1%	6.2%	6.4%	6.0%
EM multi-asset	8.0%	8.1%	7.8%	7.5%	7.8%	7.5%	6.0%	7.0%	7.3%	7.7%	7.6%	6.6%
UK property	6.3%	6.4%	6.1%	6.0%	6.4%	5.9%	4.3%	5.6%	5.7%	5.8%	5.4%	4.4%
Absolute return bonds	5.8%	5.9%	5.6%	5.7%	5.9%	5.6%	5.9%	5.9%	5.6%	5.7%	5.9%	5.6%
Diversified growth	6.6%	6.7%	6.4%	5.9%	6.4%	6.2%	4.6%	5.8%	6.1%	6.3%	6.1%	5.5%
Unlisted Infrastructure equity	7.5%	7.6%	7.3%	6.0%	7.2%	7.0%	5.5%	7.1%	7.0%	7.1%	6.8%	5.9%
Commodities	7.1%	7.2%	6.9%	7.6%	7.7%	7.1%	4.2%	6.7%	6.8%	7.1%	7.3%	7.0%
Fund of hedge funds	5.5%	5.6%	5.3%	4.9%	5.2%	5.1%	4.5%	5.0%	5.1%	5.3%	5.3%	4.9%
Multi-asset credit	6.7%	6.8%	6.5%	6.6%	6.8%	6.5%	6.5%	6.8%	6.5%	6.6%	6.7%	6.4%
Dynamic LDI LIBOR (3x lev)	4.1%	4.2%	3.9%	4.1%	4.3%	3.9%	4.1%	4.3%	3.9%	4.0%	4.2%	3.8%
Opportunistic credit	8.2%	8.3%	8.0%	7.5%	8.1%	7.8%	6.7%	7.7%	7.7%	7.8%	7.8%	7.3%
Private credit	7.5%	7.6%	7.3%	7.5%	7.7%	7.3%	7.6%	7.8%	7.3%	7.3%	7.6%	7.4%
Long lease property	6.4%	6.5%	6.2%	6.1%	6.5%	6.0%	4.4%	5.7%	5.8%	5.9%	5.5%	4.5%
Alternative risk premia	6.3%	6.4%	6.1%	5.7%	6.0%	5.9%	5.3%	5.8%	5.9%	6.1%	6.1%	5.7%
Insurance-linked securities	6.6%	6.7%	6.4%	6.0%	6.3%	6.2%	5.6%	6.1%	6.2%	6.4%	6.4%	6.0%
Asset-backed securities	6.0%	6.1%	5.8%	6.0%	6.2%	5.8%	6.1%	6.2%	5.8%	5.9%	6.1%	5.8%
Low carbon global equities (hedged)	7.9%	8.0%	7.7%	7.6%	8.1%	7.7%	8.1%	8.1%	7.7%	7.4%	7.5%	6.0%
Low carbon global equities (unhedged)	8.0%	8.1%	7.8%	7.7%	8.2%	7.8%	7.6%	8.2%	7.8%	7.5%	7.1%	6.1%
Low carbon UK equities	8.0%	8.1%	7.8%	8.1%	8.5%	7.8%	8.1%	8.5%	7.8%	7.5%	7.2%	6.3%
Diversified growth (relative value)	5.5%	5.6%	5.3%	4.8%	5.3%	5.1%	3.5%	4.7%	5.0%	5.2%	5.0%	4.4%
Global property	6.8%	6.9%	6.6%	6.5%	6.9%	6.4%	4.8%	6.1%	6.2%	6.3%	5.9%	4.9%
Credit default swaps fund	5.1%	5.2%	4.9%	5.0%	5.3%	4.9%	4.9%	5.3%	4.9%	4.9%	5.1%	4.7%
Listed infrastructure equity	7.2%	7.3%	7.0%	5.0%	5.6%	6.3%	2.6%	4.6%	6.0%	6.7%	6.4%	5.3%

- The table above shows the investment annualised returns assumed under each scenario in our modelling over a specified time horizon from 31 December 2022. These annualised returns are a consequence of the many assumptions underlying the scenario modelling. Alternative assumptions may be justifiable; the choice of assumptions will impact the output of the modelling.
- Returns are illustrated over distinct periods. As such, these do not show the timings of exactly when these returns are expected to take place, in particular the timings of any market shocks.

Appendix 2 – Further information on climate-related metrics

1. Listed equities and corporate bonds

Notes for data sourced from MSCI

Emissions are attributed to investors using “enterprise value including cash” (ie EVIC, the value of equity plus outstanding debt plus cash).

The total GHG emissions figures omit any companies for which data was not available. For example, if the portfolio was worth £200m and emissions data was available for 70% of the portfolio by value, the total GHG emissions figure shown relates to £140m of assets and the portfolio’s carbon footprint equals total GHG emissions divided by 140. In other words, no assumption is made about the emissions for companies without data.

The science-based targets metric equals the % of portfolio by weight of companies that have a near-term carbon emissions reduction target that has been validated by the Science Based Targets initiative (SBTi). The MSCI database does not distinguish between companies which do not have an SBTi target and companies for which MSCI does not check the SBTi status, so the coverage for this metric is equal to the % of the portfolio with an SBTi target.

Emissions data coverage and quality

Where coverage of the portfolio analysed is less than 100%, this is because the MSCI database:

- Does not cover some holdings (eg cash, sovereign bonds, bonds that have recently matured, shares in companies no longer listed when the analysis was undertaken);
- Does not hold emissions data for some portfolio companies because the company does not report it and MSCI does not estimate it; and/or
- Does not hold EVIC data for some portfolio companies, so emissions cannot be attributed between equity and debt investors.

The last of these reasons is usually the main explanation for the fairly low coverage of bond portfolios.

The MSCI database records whether emissions data is reported or estimated, and which estimation method has been used, but not whether companies’ reported emissions have been independently verified. Our investment consultant has asked MSCI to introduce this distinction. Where emissions data is estimated, MSCI uses one of three methods.

- For electric utilities, MSCI’s estimate of Scope 1 emissions is of direct emissions due to power generation, calculated using power generation fuel-mix data.
- For companies not involved in power generation, which have previously reported emissions data, MSCI starts with a company-specific carbon intensity model.
- For other companies, MSCI uses an industry segment-specific carbon intensity model, which is based on the estimated carbon intensities for 1,000+ industry segments.

MSCI is a leading provider of climate-related data, so we would expect the coverage to compare favourably with other data sources. Our investment consultant is engaging with MSCI to encourage them to improve EVIC coverage for debt issuers and to distinguish between companies which do not have an SBTi target and companies for which it does not check the SBTi status.

Appendix 2 – Further information on climate-related metrics

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2. UK government bonds and LDI

GHG emissions for government bonds (gilts) are calculated on a different basis from the other asset classes, so cannot be compared with the other emissions figures shown. The emissions figures were calculated by the Trustee’s LDI manager, Insight, using publicly available data sources. As suggested in the statutory guidance, Scope 1+2 emissions have been interpreted as the production-based emissions of the country.

Total emissions from LDI portfolio based on the Scheme’s proportion of the government’s 2022 annual UK greenhouse gas emission data (Scope 1 and 2), published as a provisional figure by the UK government of 417.1m tCO₂e², based on the combined gilt exposure (funded gilts and gilts on repo and/or TRS) relative to total UK government debt at 31 March 2023. Carbon footprint calculated as (tCO₂e²/market value of gilts in issuance). Scope 3 emissions are not included.

Gilts posted out as collateral are included in gilt valuations; gilts received as collateral are excluded. Interest rate swaps, inflation swaps, futures, short gilt positions, cash and money market fund holdings have all been excluded.

Please note that there is significant risk of double counting alongside corporate bond portfolio total UK emissions include corporate and household emissions, as well as government emissions. It is difficult to separate corporate emissions from government; some of the emissions attributed to gilts may also be included in emissions for corporate debt and equity. There is little consideration for ‘exported’ emissions in raw data including exporting countries retain carbon responsibility for production even if the good is used elsewhere.

3. Bulk annuity policies

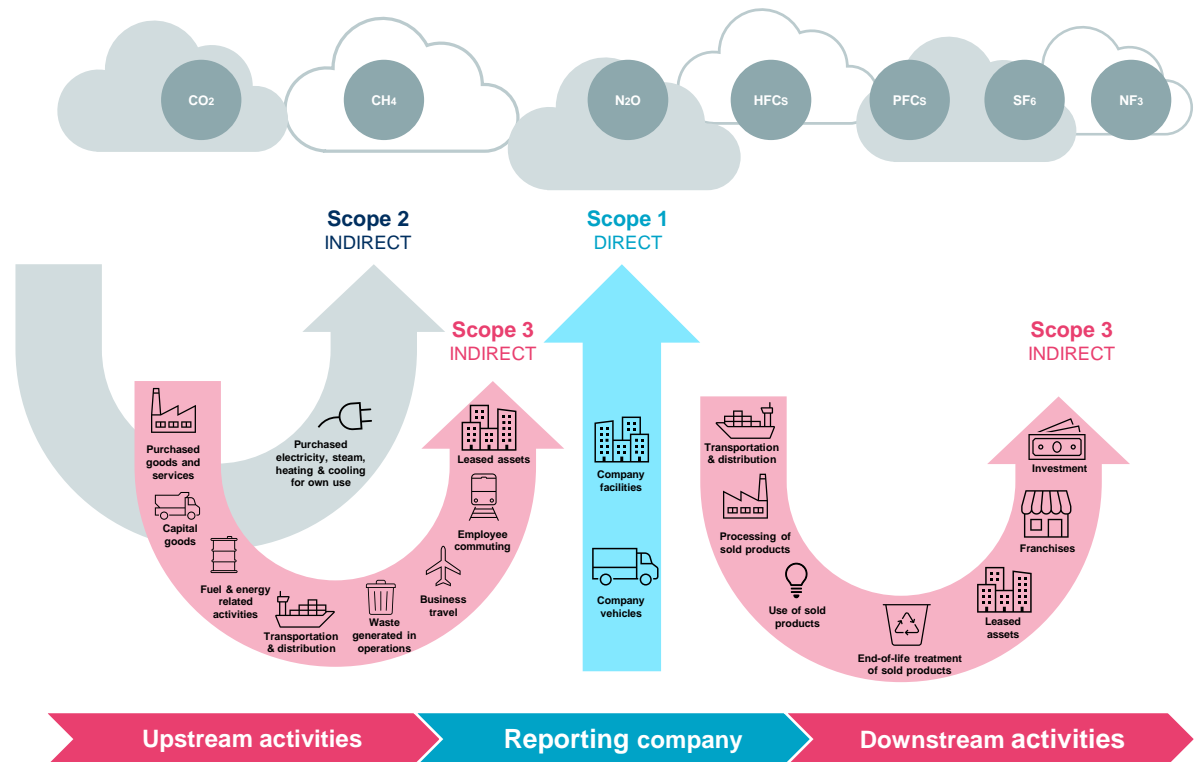
Legal and General has provided data for its annuity portfolio excluding cash and derivatives. It uses proxies where complete data is not available, but would not provide information on the proportion of data that is estimated. The Trust’s total emissions have been estimated as the carbon footprint per £m invested multiplied by the value of the Trust’s policy. For sovereign bonds, a normaliser has been used consistent with EVIC for corporate bonds and equities. The policy value has been calculated as at 30 September 2022 from the Scheme Report and Accounts. The science-based targets metric is the proportion of companies whose targets had been validated by the SBT initiative using the latest data available in July 2022, for portfolio holdings at 31 December 2021.

Appendix 3 – Greenhouse gas emissions explained

Within the ‘metrics and targets’ section of the report, the emissions metrics relate to seven greenhouse gases – carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). The figures are shown as “CO₂ equivalent” (CO₂e) which is the amount of carbon dioxide that would be equivalent to the excess energy being stored by, and heating, the earth due to the presence in the atmosphere of these seven greenhouse gases.

The metrics related to greenhouse gas emissions are split into the following three categories: Scope 1, 2 and 3. These categories describe how directly the emissions are related to an entity’s operations, with Scope 1 emissions being most directly related to an entity’s everyday activities and Scope 3 referring to indirect emissions in an entity’s value chain. Scope 3 emissions often form the largest share of an entity’s total emissions, but are also the ones that the entity has least control over.

- **Scope 1** greenhouse gas emissions are all direct emissions from the activities of an entity or activities under its control.
- **Scope 2** greenhouse gas emissions are indirect emissions from electricity purchased and used by an entity which are created during the production of energy which the entity uses.
- **Scope 3** greenhouse gas emissions are all indirect emissions from activities of the entity, other than scope 2 emissions, which occur from sources that the entity does not directly control.



Appendix 4 – Glossary

Actuarial valuation – an actuarial valuation is an accounting exercise performed to estimate future liabilities arising out of benefits that are payable to members of a DB pension scheme, typically once every three years. In the actuarial valuation exercise, a liability payout at a future date is estimated using various assumptions such as discounting rate and salary growth rate.

Alignment – in a climate change context, alignment is the process of bringing greenhouse gas emissions in line with 1.5°C global temperature rise targets. It can be applied to individual companies, investment portfolios and the global economy.

Asset class – a group of securities which exhibit broadly similar characteristics. Examples include equities and bonds.

Avoided emissions – these are reductions in greenhouse gas emissions that occur outside of the value chain a product's life cycle, but as a result of the use of that product. For example, emissions avoided through use of a wind turbine or buildings insulation.

Bond – a bond is a security issued to investors by companies, governments, and other organisations. In exchange for an upfront payment, an investor normally expects to receive a series of regular interest payments plus, at maturity, a final lump sum payment, typically equal to the amount invested originally, or this amount increased by reference to some index.

Buy-in – DB pension trustees may choose to “buy-in” some of their scheme's expected future benefit payments by purchasing a bulk (i.e., one covering many individuals) annuity contract with an insurance company. This allows the trustees to reduce their scheme's risk by acquiring an asset (the annuity contract) whose cash flows are designed to meet i.e., “match” a specified set of benefit payments under the pension scheme. The contract is held by the trustees and responsibility for the benefit payments remains with the trustees. Common uses of buy-in arrangements have been to cover the payments associated with current pensioners or a subset of those members. Contracts to meet payments to members who are yet to become pensioners can also be purchased.

Buy-out – DB pension trustees may choose to “buy-out” some or all of their scheme's expected future benefit payments by purchasing a bulk (i.e., one covering many individuals) annuity contract from an insurance company. The insurer then becomes responsible for meeting pension benefits due to members (effected ultimately by allocating to each member an individual annuity contract). Following a full buy-out, (i.e., one covering all members) and having discharged all of the trustees' liabilities, the pension scheme would normally be wound up.

Carbon emissions - These refer to the release of carbon dioxide, or greenhouse gases more generally, into the atmosphere, for example from the burning of fossil fuels for power or transport purposes.

Carbon footprint – In an investment context, the total carbon dioxide or greenhouse gas emissions generated per amount invested (eg in £m) by an investment fund. Related definitions are used to apply the term to organisations, countries, and individuals

Climate change adaptation – steps taken to adapt to the physical effects of climate change such as improving flood defences and installing air conditioning.

Climate change mitigation – steps taken to limit climate change by reducing greenhouse gas emissions, for example by shifting to renewable sources of energy – such as solar and wind – and by using less energy and using it more efficiently.

Covenant – the ability and willingness of the sponsor to make up any shortfall between a DB scheme's assets and the agreed funding target.

CO2e (carbon dioxide equivalent) – the standard measurement of GHG emissions in terms of the most common GHG, carbon dioxide (CO2)

Credit – long-term debt issued by a company, also known as corporate bonds. Corporate bonds carry different levels of credit risk which is indicated by their risk rating and credit spread.

Defined Benefit (DB) – a pension scheme in which the primary pension benefit payable to a member is based on a defined formula, frequently linked to salary. The sponsor bears the risk that the value of the investments held under the scheme fall short of the amount needed to meet the benefits.

Appendix 4 – Glossary

Defined Contribution (DC) – a pension scheme in which the sponsor stipulates how much it will contribute to the arrangement which will depend upon the level of contributions the member is prepared to make. The resultant pension for each member is a function of the investment returns achieved (net of expenses) on the contributions and the terms for purchasing a pension at retirement. In contrast to a defined benefit scheme, the individual member bears the risk that the investments held are insufficient to meet the desired benefits.

Debt – money borrowed by a company or government which normally must be repaid at some specified point in the future.

Default strategy – the fund or mix of funds in which contributions in respect of a DC member will be invested in the absence of any explicit fund choice(s) of that member.

Environmental, social and governance (ESG) – an umbrella term that encompasses a wide range of factors that may have been overlooked in traditional investment approaches. Environmental considerations might include physical resource management, pollution prevention and greenhouse gas emissions. Social factors are likely to include workplace diversity, health and safety, and the company's impact on its local community. Governance-related matters include executive compensation, board accountability and shareholder rights.

Equity – through purchase on either the primary market or the secondary market, company equity gives the purchaser part-ownership in that company and hence a share of its profits, typically received through the payment of dividends. Equity also entitles the holder to vote at shareholder meetings. Note that equity holders are entitled to dividends only after other obligations, such as interest payments to debt holders, are first paid. Unlike debt, equity is not normally contractually repayable.

Ethical investment – an approach that selects investments on the basis of an agreed set of environmental, social and governance (ESG) criteria that are motivated by ethical considerations.

Fossil fuels – fuels made from decomposing plants and animals, which are found in the Earth's crust. They contain carbon and hydrogen, which can be burned for energy. Coal, oil, and natural gas are examples of fossil fuels.

Funding position – a comparison of the value of assets with the value of liabilities for a DB pension.

Gilts – bonds issued by the UK government. They are called gilts as the bond certificates originally had a gilt edge to indicate their high quality and thus very low probability of default

Greenhouse gas (GHG) emissions (scopes 1, 2 and 3) – gases that have been and continue to be released into the Earth's atmosphere. Greenhouse gases trap radiation from the sun which subsequently heats the planet's surface (giving rise to the "greenhouse effect"). Carbon dioxide and methane are two of the most important greenhouse gases.

Investment mandate – see pooled mandate and segregated mandate

Integrated risk management – Integrated risk management is an approach used by DB pension trustees to identify, manage and monitor the wide range of risks (relating to investment, funding and covenant) which might impact the chances of meeting their scheme's overall objectives

Liabilities – obligations to make a payment in the future. An example of a liability is the pension benefit 'promise' made to DB pension members, such as the series of cash payments made to members in retirement. The more distant the liability payment, the more difficult it often is to predict what it will actually be and hence what assets need to be held to meet it.

LDI (Liability Driven Investment) – an investment approach which focusses more than has traditionally been the case on matching the sensitivities of a DB pension's assets to those of its underlying liabilities in response to changes in certain factors, most notably interest rate and inflation expectations.

Appendix 4 – Glossary

Net zero – this describes the situation in which total greenhouse gas emissions released into the atmosphere are equal to those removed. This can be considered at different levels, e.g., company, investor, country or global.

Offsetting – the process of paying someone else to avoid emitting, or to remove from the atmosphere, a specified quantity of greenhouse gases, for example through planting trees or installing wind turbines. It is sometimes used to meet net zero and other emission reduction targets.

Physical risk – these are climate-related risks that arise from changes in the climate itself. They include risks from more extreme storms and flooding, as well as rising temperatures and changing rainfall patterns.

Pooled mandate – a feature of a collective investment vehicle whereby an investor's money is aggregated (i.e., "pooled") with that of other investors to purchase assets. Investors are allotted a share of those assets in proportion to their contribution. Ownership is represented by the number of "units" allocated – e.g., if the asset pool is worth £1m and there are 1m units then each unit is worth £1. Pooled funds offer smaller investors an easy way to gain exposure to a wide range of investments, both within markets (e.g., by buying units in a UK equity fund) as well as across markets (e.g., by buying units in both a UK equity fund and a UK corporate bond fund).

Portfolio alignment metric – this measures how aligned a portfolio is with a transition to a world targeting a particular climate outcome, such as limiting global temperature rises to well below 2°C, preferably to 1.5°C, as per the Paris Agreement. Assessments using these metrics consider companies' and governments' greenhouse gas (GHG) emissions reduction Trusts and likelihood of meeting them, rather than current, or the latest reported, GHG emissions.

Responsible Investment (RI) – the process by which environmental, social and governance (ESG) issues are incorporated into the investment analysis and decision-making process, and into the oversight of investments by companies through their stewardship activities. It is motivated by financial considerations aiming to improve risk-adjusted returns.

Science-based targets – targets to reduce greenhouse gas emissions that are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement.

Science-Based Targets initiative (SBTi) – a partnership that sets standards and provides validation for science-based targets set by companies and investors.

Scenario analysis – a tool for examining and evaluating different ways in which the future may unfold.

Scope 1, 2 and 3 – a classification of sources of greenhouse gas emissions.

Segregated mandate – a segregated investment approach ensures that an investor's investments are held separately from those of other investors. This approach offers great flexibility – for example, the investor can stipulate the precise investment objective to be followed and can dictate which securities can or cannot be held.

Self-select – in contrast with a default fund, a self-select fund within a DC Trust is one of a range of funds that members can choose to invest in.

Stakeholder – an individual or group that has an interest in any decision or activity of an organisation. The stakeholders of a company include its employees, customers, suppliers and shareholders.

Statutory obligations – statutory obligations are those obligations that do not arise out of a contract, but are imposed by law.

Stewardship – stewardship is the responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society. It is often implemented via engagement with investee companies and the exercising of voting rights.

Stranded assets – assets that have suffered an unanticipated loss of value before the end of their expected useful economic life. The term is most often applied to fossil fuel investments in the context of climate policy, where legislative and market developments may result in assets being worth less than the value recorded on related company balance sheets.

Appendix 4 – Glossary

Sustainable investing - an approach in which the environmental and social sustainability of a company's products and practices is evaluated and is a key consideration in the investment decision. ESG analysis therefore forms a cornerstone of the investment selection process.

Taskforce on Climate-related Financial Disclosures (TCFD) – a group of senior preparers and users of financial disclosures from G20 countries, established by the international Financial Stability Board in 2015. The TCFD has developed a set of recommendations for climate-related financial risk disclosures for use by companies, financial institutions and other organisations to inform investors and other parties about the climate-related risks they face.

Transition risk – these are climate-related risks that arise from the transition to a low-carbon economy and can include changes in regulation, technology and consumer demand.

Appendix 5 – Principles for Effective Disclosure

The Trustee has aimed to follow the Principles for Effective Disclosure (as set out in the statutory guidance) when drafting the report.

1	Disclosures should present relevant information specific to the potential impact of climate-related risks and opportunities on the Trust avoiding generic or boilerplate disclosures that do not add value to members' understanding of issues.
2	Disclosures should be specific and sufficiently complete to provide a thorough overview of the Trust's exposure to potential climate-related impacts and the trustees' governance, strategy and processes for managing climate-related risks and opportunities.
3	Disclosures should be clear and understandable showing an appropriate balance between qualitative and quantitative information.
4	Disclosures should be consistent over time to enable Trust members to understand the development and/or evolution of the impact of climate-related issues on the Trust.
5	Disclosures should ideally be comparable with other pension funds of a similar size and type.
6	Disclosures should be reliable, verifiable, and objective.
7	Disclosures should be provided on a timely basis. The TCFD recommends annual disclosures for organisations.

