

Atos UK 2019 Pension Scheme

**Taskforce on Climate-
related Finance
Disclosures (TCFD)
Statement – Year Ended
31 December 2022**

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Highlights of the Scheme's TCFD report

The Trustee of the Atos UK 2019 Pension Scheme (the "Trustee", "Scheme") has a key focus on climate considerations with an ambition to be a market leader in the field of sustainable investment. This is highlighted through the setting of an ambitious carbon emissions target for the Scheme in 2020, aiming to achieve net zero by 2035.

The Trustee has prepared this report in line with the Department of Work and Pensions' ("DWP's") Climate Change Governance and Reporting requirements, set out in Regulations, and the DWP's statutory guidance (October 2022), which builds on the recommendations from the Taskforce on Climate-Related Financial Disclosures ("TCFD"). This report explains how the Scheme identifies, assesses and manages climate-related risks and opportunities.

The report covers both the Defined Benefit ("DB") and Defined Contribution ("DC") sections of the Scheme. All DB sections have been grouped as one in this report, as the sections are benefit categories only, with the investments and dealt with on a consolidated basis. All DC sections have also been grouped as one in this report, as there are significant commonalities in the investment strategies of the different sections. Given both the relative sizes of the two Sections (DB much larger than DC) and the Trustee's intention to consider alternative options for providing DC benefits, the identification, assessment and management of climate-related risks and opportunities is more developed for the DB Section than the DC Section. This is reflected in this report.

It includes data as at 31st December 2022 to align with the Scheme's financial year-end and details the work conducted by the Trustee predominantly over the year ended 31 December 2022.

The highlights across the DWP's four main focus areas are summarised below:

1. Governance: The Scheme's governance process for managing climate-related risks and opportunities.

The Trustee Board maintains overall responsibility for the oversight of climate-related risks and opportunities and is supported by the Investment and Funding Committee ("IFC") and the Administration and Governance Committee ("AGC").

The IFC is advised by a range of specialist advisors – the investment consultant to advise on assets, the Scheme actuary to advise on liabilities and the covenant advisor to advise on risks relating to the Scheme's sponsoring employer, Atos IT Services UK Ltd (the "Company"). These advisors have been considered competent to support with the identification, assessment and management of climate-related risks and opportunities.

The Trustee seeks to achieve its targets in relation to the governance of climate-change risks and opportunities in three main ways: engagement with investment managers, divestment and investment in the climate transition. It has given its appointed investment managers full discretion in evaluating environmental, social and governance (ESG) factors, including climate change considerations. The Trustee typically meets managers once a year for engagement purposes. For example, the Trustee engaged its investment consultant to collaborate with an ESG portfolio analytics firm, Impact Cubed, to assess the climate profile of the Scheme's Buy and Maintain Corporate Bond mandates. The information gathered then formed part of the subsequent engagement with the managers to question the rationale for the most carbon intensive holdings and for the Trustee to ensure climate considerations are being properly integrated into investment decision-making.

The IFC includes representatives of Independent Governance Group, through which the Trustee is able to satisfy itself as to the credentials and competence of its Board members with respect to climate-

related risks. The Trustee and the IFC undertake regular training around ESG topics and how climate change may impact the Scheme.

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

One of the key objectives for the Scheme is to *"aim to reduce scope 1, 2 and 3 emissions for those asset classes where carbon emissions can be measured to as close to zero as possible by 2035"*.

The Trustee focuses on three primary areas when considering climate change within decision-making processes: emissions reduction objectives, impact objectives and climate risk monitoring. The Trustee considers investing impactfully to mean that consideration is taken not only of the effect that a changing climate may have upon the assets of the Scheme, but also taking account of the materiality of the Scheme's investments on the climate. The Trustee's climate impact objective is to remove emissions from the real economy through investment in climate solutions, and by delivering change in invested asset emissions through active stewardship and otherwise.

The Trustee has made strategy changes to mandates to help the Scheme's decarbonisation objective, including considering climate risk as a key factor in its decision to move between two fixed income funds. Previously, the Trustee introduced a renewable infrastructure allocation and adapted the investment guidelines of some investment mandates to better align with the Scheme's net-zero ambition.

In line with the DWP's requirements, the Trustee considers the impact of physical and transitional climate risks on the Scheme, for both the DB and DC Sections, resulting from particular scenarios on a periodic basis. The results of the climate scenario analysis as at 31 December 2022 are included within this report.

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

The Scheme is exposed to climate-related risks in the form of transition and physical risk. The Trustee considers the impact of these climate-related risks on all of the assets in which it invests via the monitoring of various climate metrics.

For example, the Trustee receives climate-related reporting from its investment consultant on an annual basis which contains relevant climate metrics (as set out in Section 4). This allows the Trustee to better identify and assess climate-related risks on an ongoing basis.

The Trustee relies on the Scheme's asset managers to manage climate-related risks alongside other ESG risks. Existing managers are monitored and newly appointed managers are assessed on their climate risk management capabilities.

In addition, the Trustee believes that engagement with the Scheme's investment managers is one of the main ways in which the Trustee can manage climate-related risks and opportunities.

The Trustee has previously used its risk management process to identify areas where investment guidelines in segregated funds could be improved from a climate perspective which has previously led to changes in mandate guidelines. The Trustee was also considering during the year whether to transition from one fixed income fund to a very similar fund, due to some expected financial benefits (e.g. lower fees). Working with its investment consultant and the investment manager to gain comfort that the new fund would be introducing climate-related investment guidelines that were similar to those in the existing fund was key to the Trustee deciding to make the switch.

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

In line with DWP requirements, the Trustee monitors four climate-related metrics, which apply for both the DB and DC sections. These include emissions-based metrics, a climate risk metric and the alignment of the portfolio with the Paris Agreement, a legally binding international treaty on climate change. Results from these metrics as at 31 December 2022 and 31 December 2021 are included in this report.

Aligning with the Trustee's ambition to reduce the Scheme's carbon emissions to as close to zero as possible by 2035 (where emissions can be measured), the Trustee previously set a target to reduce the carbon footprint (i.e. emissions intensity) of the DB Section's return-seeking assets to achieve a 33% reduction based on scope 1, 2 and 3 emissions from the 2019 level by 2025. As at 31 December 2022, this target has been met. However, the Trustee recognises that elements of this target, such as the inclusion of scope 3 emissions and how the 2019 baseline level was set, could be made more suitable going forward. The current approach provides a false impression of greater progress having been made with regards to portfolio emissions than has been made in reality. Hence, the Trustee plans to review the target over 2023, with support from its investment consultant.

Closing remarks

The following pages expand on the Trustee's reporting on its position, progress and actions relating to the DWP's four main focus areas.

Monitoring and managing the Scheme's exposure to climate risks and opportunities is an ongoing task, and the Trustee will continue to enhance its approach, including incorporating any industry-wide developments. The Trustee looks forward to reporting on its progress next year in the 2024 TCFD report.

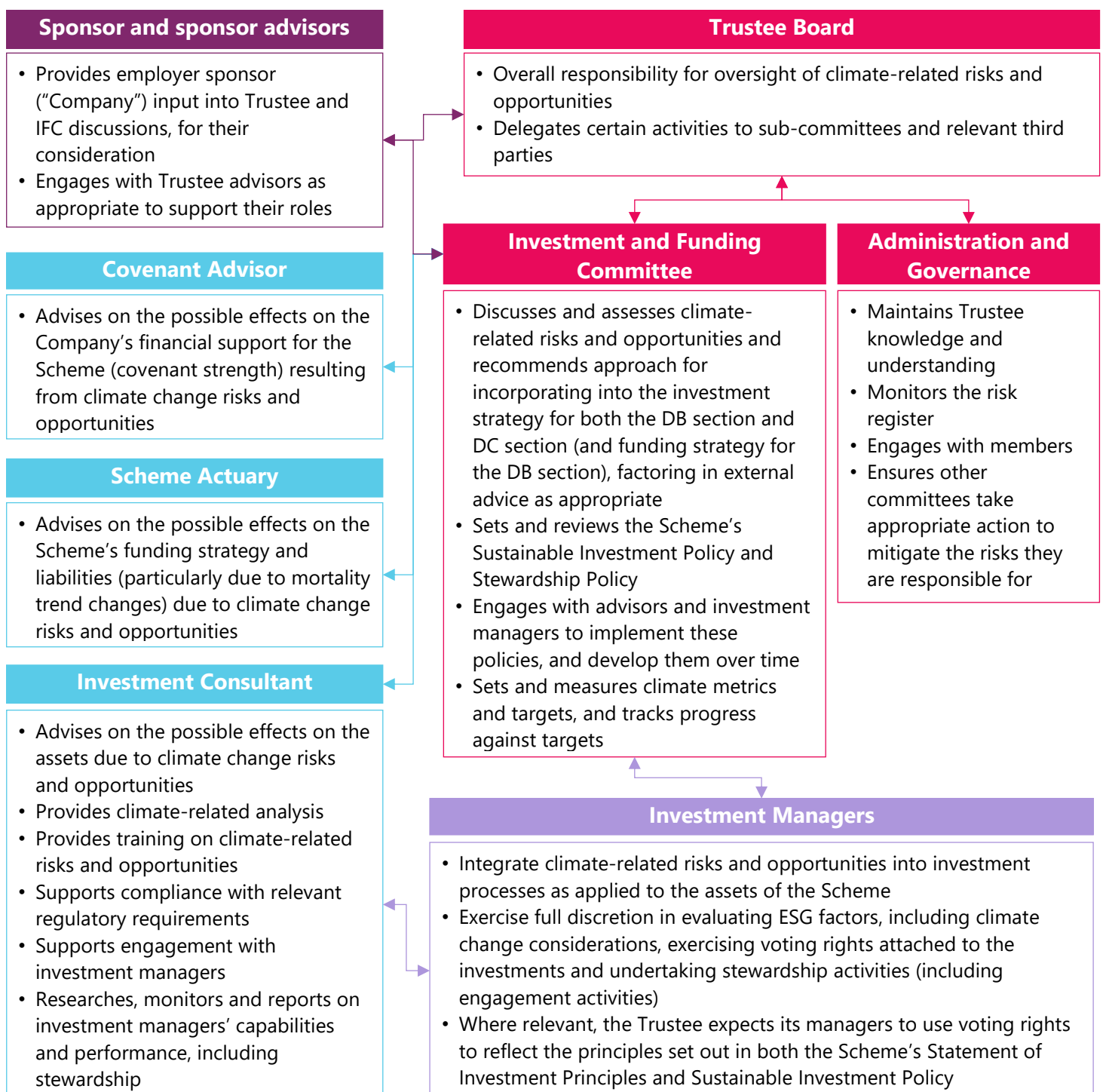
If you have any questions on the report or in relation to the Trustee's approach to considering climate-related factors on your behalf, please get in touch with via Atos.Secretarial@xpsplc.com.

1. Governance

The Trustee Board is ultimately responsible for the Scheme’s investment strategy and funding strategy. The investment strategy is built on a set of investment beliefs as outlined in the Trustee’s Statement of Investment Principles. The Trustee has also put in place a standalone Sustainable Investment Policy.

To help implement the Trustee’s investment strategy and funding strategy, certain responsibilities have been delegated to sub-committees and external advisors where appropriate. The diagram below illustrates these roles and responsibilities as they relate to identifying, assessing and managing climate-related risks and opportunities and integrating them into the Scheme’s investment strategy, funding strategy and wider risk assessment framework.

The Scheme’s climate governance structure



Ahead of implementing the climate change governance and reporting requirements, the Trustee engaged in a gap analysis of the areas where it should take steps to better identify, assess and manage climate-related risks and opportunities and integrate these into the Scheme's investment strategy and funding strategy, supported by its investment consultant and other advisors. This included training from the investment consultant on relevant areas identified through the gap analysis. Training in 2022 included training on asset classes which could support the Trustee's emissions, impact and climate risk management objectives, including impact-focused fixed income, green bonds and renewable infrastructure. The Trustee also received training on the Network for Greening Financial System ("NGFS") climate scenario analysis methodology and the SBTi's Portfolio Coverage Tool post-Scheme year end, both of which are incorporated within this report.

During the Scheme year, the Trustee, with the support of its advisors, has set aside appropriate time as part of the usual meeting cycle to allow the Trustee to implement the required processes, including time for review and discussion. The time set aside is viewed as proportionate to other responsibilities the Trustee has to perform. The time and resource spent on climate-related matters is not constant, but rather changes depending on factors such as regulatory requirements, market developments and advice/suggestions from advisors.

In line with the communication and reporting lines set out in the Scheme's climate governance structure diagram above, the Trustee Board and IFC are informed by the Scheme's advisors about climate-related risks and opportunities, and receive advice from these advisors on the assessment and management of these risks and opportunities. This occurs both through regular quarterly meetings and ad hoc communication from advisors.

The IFC are responsible for questioning and challenging the information provided to them by these advisors; for example, when the investment consultant recommended the adoption of the Science Based Targets initiative portfolio coverage tool for measuring portfolio alignment, the IFC questioned what approaches were being taken by other pension schemes and the Scheme's own investment managers, and requested that the investment consultant perform further research then present these findings and associated conclusions.

Climate change risk is incorporated into the quarterly performance reports provided by the Trustee's investment consultant, so is on the agenda for all Trustee meetings. More specific agenda items relating to climate change risk are often included on IFC meeting agendas, or form the subject of separate discussions between the investment consultant and members of the IFC, with discussions and recommendations fed back to the IFC, and where appropriate the Trustee, formally.

Some climate change risk-related agenda items include engagement with one or more of the Scheme's investment managers. The case study below demonstrates an instance of how the Trustee engaged with its investment consultant, an ESG portfolio analytics firm and some of the Scheme's investment managers to identify, assess and manage climate-related risks and opportunities in the Scheme's investment strategy.

Case study: Engagement across multiple advisors and investment managers

The Trustee engaged its investment consultant to collaborate with ESG portfolio analytics firm, Impact Cubed, to undertake analysis across the Scheme's two buy and maintain investment grade credit funds held in the DB section.

Impact Cubed ran analysis on the portfolio holdings to assess the climate profile of the two funds. Mixed results were obtained on the quality of climate risk management and engagement within the two portfolios.

The information gathered as part of this exercise has then formed part of the subsequent engagement with the managers to question the rationale for the most carbon intensive holdings and for the Trustee to ensure climate considerations are being properly integrated into investment decision-making.

Given the advisory support on climate-related matters, the Trustee takes steps to regularly review the competence of its advisors in relation to identifying and assessing climate change risks and opportunities. In particular:

- Investment consultant: integration of ESG (including climate change) and stewardship are factors in the Trustee's selection of its investment consultant, and included in the investment consultant's objectives, which the Trustee reviews at least annually. An annual client service review process also occurs between the Trustee and a senior Redington individual who is not on the client team, which provides the Trustee with an opportunity to raise any concerns.
- Scheme actuary: performs an annual client service review process, similar to the one carried out in respect of the investment consultant, where the Trustee can raise any concerns in relation to the identification and assessment of climate change risks and opportunities from a Scheme funding perspective.
- Covenant advisor: also performs an annual client service review process where the Trustee can raise any concerns in relation to the identification and assessment of any climate change risks and opportunities associated with the Company and its ongoing financial support for the Scheme.

The Trustee is in the process of further developing its advisor review process. Beginning in 2023 and to occur at least annually thereafter, the AGC will be using bespoke supplier review scorecards as part of a process to review the competence and service of its advisors. These scorecards are being produced this year and the AGC will consider how to incorporate climate risk monitoring and reporting into this enhanced review process.

Where appropriate, the Trustee/IFC engages with the Company and its advisors to consider alignment between the Scheme's climate targets and the Company's commitment to achieve net zero by 2039 at the latest. A session was held with the Company's Head of Sustainability in November 2022 to update the Company on the Trustee's ESG-related (including climate change) work over the year and understand the Company's views.

2. Strategy

The Trustee recognises that it has a fiduciary duty to exercise its powers for a proper purpose which, in relation to pension scheme investment, usually means acting in the best financial interest of members. As set out in the Statement of Investment Principles, the Trustee's long-term financial objective is to be fully funded on a low-risk basis by 2034. A central part of the strategy to achieve this objective involves assessing risk and putting in place appropriate mitigation. The Trustee believes that climate change is one major systemic investment risk that needs to be addressed in proportion to the other risks facing the Scheme. At the same time, the Trustee recognises that the transition to a lower-carbon economy may also present investment opportunities.

In terms of the Scheme's impact objective, the Trustee follows the below principles:

- The Trustee's climate impact objective is to remove emissions from the real economy through investment in climate solutions, and by delivering change in invested asset emissions through active stewardship and otherwise.
- The Trustee, with the aid of its advisors, will continue to assess opportunities that both improve or maintain the attractiveness of the portfolio's risk & return profile and align with the Trustee's broader impact objectives.

The Trustee views climate change risk as typically arising in one of two forms:

- Physical risk:
 - This relates to the physical impacts of climate change, such as damage and disruption from extreme weather events, and the effect of these on economic activity.
 - Physical risks may have financial implications for organisations, such as direct damage to assets and indirect impacts from supply chain disruption.
- Transition risk:
 - This relates to risks arising from the potentially extensive policy, legal, technology and market changes required to address climate change and to transition to a lower-carbon economy.
 - For example, these changes may lead to a lower economic value placed on certain investments due to the risk of an abrupt imposition of carbon taxes.

In line with the Scheme's Sustainable Investment Policy, the Trustee focuses on three primary areas when considering climate change within decision-making processes: emissions reduction objectives, impact objectives (as defined earlier) and climate risk monitoring. To date, the Trustee has made more progress with incorporating these areas into its investment strategy for the DB Section than for the DC Section, except in relation to climate risk monitoring. As referenced in the 'Highlights' section above, the core focus of the Trustee in respect of the DC Section is to consider alternative options for providing DC benefits. This process will include consideration of the extent to which alternative arrangements can demonstrate an effective integration of climate-related risks and opportunities within the DC investment strategy and overall risk framework. Therefore, this section of the report has more focus on DB than DC.

The Trustee notes the assessment of climate-related risks and opportunities may vary depending on the time horizon in question. As such, the Trustee assesses climate risks and opportunities over the following time horizons which it deems appropriate in light of the Scheme's strategic objectives:

Time Horizon	Date	Why was this date selected?	Example risks and opportunities
Short term	2025	This very short-term focus allows the Trustee to consider the transition risks that the Scheme is exposed to. It aligns with the actuarial valuation process.	Shorter-term climate risk is likely to be manifest in a form of transition risk. This may include stock price movements resulting from increased regulation directed at addressing climate change (i.e. mostly transition risk).
Medium term	2035	The Trustee has set a target of having net-zero carbon emissions in the portfolio by 2035 (see below for further details).	The main type of climate risk to consider in the medium-term is also likely to be transition risk, although physical risk might also impact Scheme assets and liabilities. For example, it is expected that there will be changes in consumer spending habits following changes in technology, such as the uptake in electric vehicles or a reduction in overseas travel (i.e. some transition risk and some physical risk).
Long term	2050	<p>It is noted that a target of net-zero emissions in the portfolio by 2035 may be challenging. This is because the goal of the Paris Agreement is that the global economy reaches this position by 2050.</p> <p>As discussed further in Section 4 of this report, the Trustee measures the alignment of its portfolio with the Paris Agreement using the Science Based Targets initiatives (SBTi) portfolio coverage tool. This methodology measures the proportion of the portfolio with a Paris aligned net-zero target, which is by 2050.</p> <p>This longer-term focus helps the Trustee to understand the risks that the physical changes associated with climate change might have on the Scheme's investment strategy and funding strategy.</p>	<p>The Trustee expects a mix of physical risk and transition risk to manifest in the longer-term, with an increasing intensity in physical risk. This may include transition risk due to the global economy's transition to a decarbonised economy. From a physical risk perspective, this may include physical damage to real assets as a result of rising sea levels for coastal property or infrastructure assets; there may be opportunities for outperformance for organisations that put in place strategies to mitigate these potential risks well in advance of them materialising.</p>

The Trustee has considered whether the potential risks identified across the time horizons outlined above will have an impact on the Scheme's investment or funding strategy. At this time, the Trustee does not consider the data available is sufficiently comprehensive or meaningful to make a proper

judgement so as to adjust the Scheme's strategies at this stage. However, the agreements in place with its investment consultant and investment managers require ongoing assessment of the impact of climate-related risks and opportunities across the above time horizons and the table set out on pages 11-14 below describes how they are currently taken into account across the Scheme's asset portfolio.

An aspirational, but key, objective the Trustee has set for the Scheme is to attain a net zero carbon position by 2035 (i.e. 15 years earlier than the goals of the Paris Agreement). In July 2020, the Scheme committed to dedicating resource to considering how the Scheme could potentially achieve net-zero carbon emissions by 2035. Key aspects of this objective include:

- Achieve a net-zero portfolio by 2035 (based on scope 1 and 2 emissions for those asset classes where carbon emissions can be measured).
- Scope 1 and 2 emissions are focused on due to the current difficulties in both measuring and monitoring scope 3 emissions. Scope 3 emissions are measured and monitored in segregation due to the potential for double-counting. Over time, the Trustee will consider how to reduce scope 3 emissions and appropriate ways to incorporate them into the net zero target.
- The Trustee recognises that most of the global economy is aiming to target 2050, and there are several asset classes where reliable data is not yet available, and so the 2035 aspiration is deliberately hard to meet.
- The Trustee recognises the limitations of focusing solely on carbon emissions, particularly the risk of achieving net zero within the portfolio via exclusions which have little to no real impact on emissions in the real economy. Certain mandates have elements of exclusion (e.g. the Scheme's equity fund has a fossil fuel exclusion), but the Trustee does not implement a blanket exclusion across all assets. Instead, the Trustee believes the right approach is to engage with each asset manager on meaningful ESG metrics that will make a difference in the real economy and are implementable from a practical perspective.
- It is therefore possible (and indeed likely) that there will be carbon emissions in the portfolio in 2035. However, by this point, all investments in the Scheme are expected to have a credible plan for how they will get to net zero by 2050.
- One of the Trustee's key actions has been to evaluate whether the Scheme's strategic asset allocation ("SAA") is appropriate to achieve its emissions reduction objective. The Trustee will continue to review the SAA with this purpose.
- The Trustee has so far opted for both elements of an active and passive approach to achieve this objective. An active approach entails changing the SAA and replacing managers, while a passive approach relies more on the lower-carbon transition success of businesses, policy makers and asset managers.

The table below and over the following pages provides an overview of the climate-related risks and opportunities which the Trustee has identified and assessed, and examples of the impact they have had on the investment strategy for the DB Section, including on the asset portfolio as at 31 December 2022. The table also indicates how the Trustee's carbon reduction and impact objectives are, or are not, contributed to.

Asset Class	Manager	Asset Allocation as at 31/12/22 (%)	Net Zero Commitment (on mandate level) (year)	Overview of approach to integrating climate risks and opportunities
Passive Equities	LGIM	6%	2050	<ul style="list-style-type: none"> Tracks index designed to account for the risks and opportunities associated with the transition to a low-carbon economy, with the following influencing constituent weights: exposure to green revenues, fossil fuels and carbon emissions, climate governance activities and commitments to Paris Aligned carbon emission pathways. Excludes fossil fuels, tobacco and controversial weapons. No explicit decarbonisation target or pathway that is aligned with the goals of the Paris Agreement. Given this, the Trustee is investigating transitioning to an alternative climate-focused index fund which does have a decarbonisation target and pathway defined.
Absolute Return Bonds	Federated Hermes	1%	2050	<ul style="list-style-type: none"> As at 31 December 2022, the Scheme was invested in a segregated mandate which had dual investment objectives of both generating a positive absolute return through the investment cycle and investing in debt securities of companies that are adapting their business models to reduce their environmental impact on climate change. There is an emphasis on engagement over divestment, whereby an issuer who can demonstrate an improving climate score is likely to be retained. This is in line with the Trustee’s objective of seeking to remove emissions from the real economy by encouraging better practice from investee companies, as referred to in the Scheme’s Sustainable Investment Policy. Post year-end, the Trustee has moved to a broadly equivalent pooled fund – see the case study in Section 3: Risk Management.

Asset Class	Manager	Asset Allocation as at 31/12/22 (%)	Net Zero Commitment (on mandate level) (year)	Overview of approach to integrating climate risks and opportunities
	PIMCO	4%	No	<ul style="list-style-type: none"> No decarbonisation target in place. The manager focuses on engagement with companies. The Trustee views the PIMCO fund as being behind many of its competitor funds in terms of sustainable investment and continues to work with the manager to further understand and improve ESG efforts in relation to the fund the Scheme is invested in. Post Scheme year-end, the Trustee has engaged with specialist ESG portfolio analytics provider, Impact Cubed, to further understand the position of the fund with respect to climate change, amongst other ESG factors. The results of this analysis will be used, where appropriate, to support further engagement with the manager.

Asset Class	Manager	Asset Allocation as at 31/12/22 (%)	Net Zero Commitment (on mandate level) (year)	Overview of approach to integrating climate risks and opportunities
Global Buy and Maintain Investment Grade Corporate Bonds	Amundi	15%	2050	<ul style="list-style-type: none"> • Segregated mandate with Trustee-driven decarbonisation targets. • Aims to reduce the weighted average carbon intensity of the mandate so that it is 15% below its reference benchmark. • Target 0% exposure to issuers with carbon reserves. • Target 100% of issuers with a carbon reduction target. However, these targets do not necessarily need to be validated as aligning with the Science Based Targets initiative (SBTi). • The manager calculates temperature alignment using a proprietary model to help evaluate and project companies' carbon emissions intensity into the future and compare them with sector-level targets to achieve alignment with Paris Agreement goals. This forward-looking element allows the manager to hold securities by issuers that may have high carbon emissions today but have a clear roadmap to lowering them in the future – this aligns with the Trustee's desire to help contribute towards zero real economy emissions.
	Insight Investment	15%	No	<ul style="list-style-type: none"> • The Trustee undertook a review of the portfolio using an external ESG portfolio analytics provider. The analysis found that the mandate is less climate intensive than its peers, but also provided insights to support the Trustee's engagement with the manager. • The Trustee has worked extensively with Insight Investment to assess how the pooled buy and maintain credit mandate compares to its peers. These engagement efforts have reassured the Trustee that the manager is taking adequate steps to decarbonise the portfolio and contribute towards a Paris-aligned real economy.

Asset Class	Manager	Asset Allocation as at 31/12/22 (%)	Net Zero Commitment (on mandate level) (year)	Overview of approach to integrating climate risks and opportunities
Senior Private Debt	Mercer Global Investments	9%	No	<ul style="list-style-type: none"> Limited explicit integration of climate risks and opportunities, and no direct contribution to carbon reduction of impact objectives, but this is an illiquid investment that is currently in run-off, so there is limited scope to make changes here.
Renewable Infrastructure	Mirova	2%	2050	<ul style="list-style-type: none"> The allocation is globally diverse in terms of geographic exposure, so there is not a concentrated exposure to physical climate risk in any certain geography. The Trustee has the view that the transition of our energy system towards low-carbon solutions such as wind and solar is necessary to keep the rise of global temperatures below 2 degrees, in line with the aim of the Paris Agreement. It is therefore the Trustee's view that this fundamental change in the structure of our energy system makes Renewable Infrastructure an asset class with a compelling long-term risk-adjusted return.
	Stonepeak	1%	2050	
UK Property	LGIM	12%	No	<ul style="list-style-type: none"> The Trustee has not yet focussed its engagement on this fund, but did significantly reduce its allocation to the fund over the last Scheme year.
LDI	Schroders	33%	No	<ul style="list-style-type: none"> Schroders can participate in UK green gilt syndications, where this would be an appropriate Scheme investment in line with the Statement of Investment Principles. Climate risk is viewed as a less material risk within LDI than return-seeking assets because the Scheme uses the LDI portfolio to hedge the funding level. This means that negative effects on the LDI assets due to climate-related effects on interest rates and inflation would be expected to have proportionately positive effects on the Scheme's liabilities, resulting in a broadly neutral funding outcome.

As part of considering climate-related risks and opportunities and their potential implications for the Scheme, the Trustee, supported by its advisors, performs scenario analysis. For the DB Section, this incorporates the total assets, liabilities and sponsor covenant. For the DC Section, the Scheme's popular arrangements are considered, defined as any investment fund greater than £100m in value or greater than 10% of total DC assets.

The Trustee undertakes scenario analysis consistent with the Network for Greening Financial System ("NGFS") scenarios, considering the following scenarios:

- *1.5°C Orderly Transition*: Assumes that global warming is limited to 1.5°C through stringent climate policies and innovation, reaching global net-zero CO₂ emissions around 2050. Some jurisdictions such as the US, EU and Japan reach net zero for all GHGs.
- *2°C Orderly Transition*: Gradually increases the stringency of climate policies, giving a 67% chance of limiting global warming to below 2°C.
- *1.5°C Disorderly Transition*: Reaches net zero around 2050 but with higher costs due to divergent policies introduced across sectors leading to a quicker phase out of oil use.
- *2°C Disorderly Transition*: Assumes annual emissions do not decrease until 2030. Strong policies are needed to limit warming to below 2°C. CO₂ removal is limited.
- *Hot House World*: Assumes that climate policies are implemented in some jurisdictions, but global efforts are insufficient to halt significant global warming.

Further detail on the methodology used for the scenario analysis is included in Appendix B, including outlining key assumptions and limitations that may affect the analysis results.

At this early stage, the Trustee does not consider that the scenario analysis has materially influenced its decision-making process in respect of either the investment strategy or funding strategy of the DB Section, or the investment strategy of the DC Section. This is as the Trustee recognises that current climate scenario analysis in the market is built on assumptions which do not accurately reflect the real world. For example, the model does not consider physical risks until further into the future and hence places too little importance on these, it ignores climate tipping points and the wider knock on implications of climate change on society. The time horizons of the climate scenarios are also not aligned to the time horizon on which the Trustee considers climate risk. Whilst physical risks and transition risks have been identified at a high level, as outlined earlier in this section, the scenario analysis undertaken to date has not provided significant help to the Trustee in identifying the impact of climate-related risks and opportunities on its funding and investment strategies over different time horizons. However, the Trustee will continue to consider climate change as part of its decision making process and report on progress in future TCFD reports.

In line with the DWP's requirements, the Trustee has performed the scenario analysis outlined above for both the DB Section and the DC Section. The results are set out and discussed below.

DB Section:

The table below displays the results of this scenario analysis on the funding position of the Scheme (on a Technical Provisions basis) as at 31 December 2022, incorporating the asset stress provided by the Trustee's investment consultant and longevity stress on the liabilities provided by the Scheme Actuary.

The Technical Provisions basis is used because this is the basis on which any additional deficit recovery contributions from the Sponsor would be calculated. The covenant analysis from the Trustee’s covenant advisor follows below, which considers climate risks in the context that they may disrupt the ability of the Sponsor to support the funding of any shortfall generated by adverse effects of the different climate scenarios.

Effects of the climate scenarios on interest rates are modelled consistently on the assets and liabilities by the investment consultant. Inflation effects are not included in the results below as these are not yet allowed for in the NGFS scenarios, but the Trustee is comfortable with this approach, given that the LDI portfolio is used to fully hedge inflation risks to the Technical Provisions funding level.

The results of the scenarios provide the Trustee with an overview of how resilient the current investment strategy and funding strategy are across various different climate change outcomes. Note: this does not allow for changes within the investment strategy that are expected over that time, for example the likely de-risking of the investment strategy into LDI. It is expected that the results will improve as the Scheme de-risks.

Scenario	Impact on assets (%)	Longevity impact on liabilities (%)	Total* impact on liabilities (%)	Impact on funding level (%)	Impact on net asset-liability position (i.e. surplus/deficit) (£m)
1.5°C Orderly Transition	-4.4%	+0.3%	-3.2%	-1.2%	-£14m
2°C Orderly Transition	-1.9%	+1.8%	0.0%	-1.8%	-£26m
1.5°C Disorderly Transition	-17.8%	-1.1%	-8.8%	-9.5%	-£116m
2°C Disorderly Transition	-10.8%	-1.8%	-6.7%	-4.2%	-£50m
Hot House World	-1.8%	-3.7%	-5.5%	+3.7%	+£52m

*As noted above, inflation effects are not included in the scenarios. This includes interest rates and longevity.

As shown in the table above, the Scheme’s funding position would be expected to worsen under the majority of scenarios. Though there are some scenarios (i.e. orderly transitions) where there would be expected to be an increase in longevity (i.e. increased life expectancies), and so an increase in liabilities, the modelled interest rate effects mean that there are no scenarios where the total liabilities are expected to increase. However, under all scenarios bar the Hot House World, the adverse effect on asset values (which includes broadly corresponding interest rate effects through the liability hedging strategy) is modelled to have a larger negative funding impact than the positive funding impact from the liability reductions.

The scenarios with the greatest transition risk present (i.e. the disorderly transitions) are expected to result in the worst funding outcomes. Whilst the disorderly transitions are expected to cause a reduction in life expectancy (i.e. decreasing liabilities due to reduced longevity), this is more than offset

by expectations of large adverse effects on asset values. This effect is exacerbated for the 1.5°C scenario, where a greater transition from the present state would be required compared to the 2°C scenario.

The Hot House World scenario, which assumes low transition risk but high physical risk, is expected to have a positive funding outcome. However, this is due to the relatively low asset impact being outweighed by the larger magnitude liability impact, which is majorly driven by reduced life expectancies. The relatively low asset impact is due to the physical risk and transition risk present in the scenario and how the impacts for each scenario are discounted back to present day; whilst Hot House World is the scenario with the greatest physical risk, this risk is projected to occur further in the future than transition risk (which is largely in the next decade or so), so it is discounted over a longer period and results in a lower present day value of the impact.

The Trustee has engaged with its covenant advisor to understand how the Company, and the covenant support provided through Atos SE group (“the Group”), may be affected by various climate-related scenarios, recognising that any potential impact on the Company or the Group may have an impact on the resilience of the near-term or longer-term funding strategy of the Scheme.

The covenant advisor considered the same climate scenarios as used for the investment and funding scenario analysis set out above. They found that the Group is exposed to risks such as higher cost of emissions (e.g. carbon taxes), particularly under faster transition scenarios. The Group is also exposed to physical risk, both in the shorter and longer term, but with a wider range of and more pronounced physical risk implications in the longer term (e.g. extreme weather events, rising sea levels); however, the scenario analysis under the Hot House World scenario suggests that this would be less challenging for the Scheme as its need for financial support from the Group is expected to be lower. Therefore, the main risk to the Scheme’s funding resilience under different climate scenarios is the potential for the additional Scheme funding that may be required under the four transition scenarios (i.e. 1.5°C/2°C Orderly/Disorderly Transition) to be unaffordable for the Company and the Group. The Trustee also notes that, at the time of publication of this report, the Group is in a period of business transformation. This could have an impact on the covenant support and funding strategy for the Scheme, to the extent the scenarios affect the covenant and, therefore, the resilience of the funding strategy. The Trustee will consider this further once the transformation has concluded and report on any potential impact on the funding strategy in future TCFD reports.

The Trustee will also continue to work with the covenant advisor to monitor the Company’s progress towards net zero, which should help to mitigate adverse transition costs.

The Group has outlined the following key risks as part of its climate strategy: changes to regulations, climate change events and energy usage constraints. However, it considers that they each have a low negative impact and has set out its approach to mitigation.

The Trustee, with advice from its covenant advisor, has considered further key challenges for the Group, such as reducing carbon emissions in line with its 1.5°C SBTi commitment, shifting to renewable energy, ensuring proper implementation of its environmental program and actions plans, decarbonising its supply chain and decarbonising digital solutions. The Trustee is aware that the additional funding requirements of the Scheme resulting under some of the climate scenarios could place strain on the covenant, but recognises that the Group is taking steps to mitigate climate risk, for example, through its active emissions reduction strategy.

DC Section:

The climate scenario analysis for the DC Section is focussed on the following investment funds, which are the funds which represent more than 10% of DC Section assets. These represent around 96% of total DC Section assets:

- BlackRock DC 70/30 Global Growth
- BlackRock DC Pre-Retirement
- BlackRock DC Index-linked Gilt
- BlackRock DC Cash

The same five NGFS climate scenarios as considered for the DB Section have been considered for the DC assets.

The results of the climate scenario analysis on the above DC investment funds as at 31 December 2022 are displayed below:

Scenario	BlackRock DC 70/30 Global Growth	BlackRock DC Pre-Retirement	BlackRock DC Index-linked Gilt	BlackRock DC Cash
1.5°C Orderly Transition	-25.6%	-1.0%	0.0%	0.0%
2°C Orderly Transition	-15.1%	-0.6%	0.0%	0.0%
1.5°C Disorderly Transition	-53.4%	-4.5%	0.0%	0.0%
2°C Disorderly Transition	-43.7%	-2.8%	0.0%	0.0%
Hot House World	-13.6%	-0.6%	0.0%	0.0%

Further to the limitations of the scenario analysis outlined earlier, the usefulness of this modelling is limited further for the DC Section due to the treatment of sovereign debt and cash, which a stress is not estimated for. This means there are no results to consider for BlackRock DC Index-linked Gilt or BlackRock DC Cash, and it also further limits the usefulness for BlackRock DC Pre-Retirement as it is largely made up of sovereign debt.

Where the results are available, for BlackRock DC 70/30 Global Growth and BlackRock DC Pre-Retirement, the modelling suggests a negative impact on asset values, and therefore pension pot sizes, under all scenarios. The scenarios with a disorderly transition are modelled to have a materially worse impact.

Where deemed appropriate and to the extent relevant and possible, the Trustee will consider how to use such analysis in decisions relating to the investment strategy.

The Trustee's investment consultant researches and considers possible ways to improve data quality across asset classes, including sovereign debt and cash, on an ongoing basis. As developments are made in the area, the Trustee expects its investment consultant to bring potential methods for improvement to IFC meetings for the committee to consider. The Trustee will report on any developments in this area made over 2023 in its next TCFD report.

3. Risk Management

Identifying and assessing climate-related risks

As set out in Section 2, the Scheme is exposed to climate-related risks in the form of transition and physical risk. The Trustee considers the impact of these climate-related risks on all of the Scheme's assets by conducting and reviewing the results of climate-related stress tests on a periodic basis. These stress tests are conducted at least triennially for the full DB funding stress (i.e. assets, liabilities and covenant), at least annually for all scenarios on an assets-only basis (DB and DC), and at least quarterly for the DB assets under the 2°C Disorderly Transition (as further discussed under section "4. Metrics and Targets"). However, as set out in Section 2, the Trustee has not found this analysis very useful for identifying or assessing specific physical or transition risks.

The Trustee receives reporting on multiple climate-related metrics for the DB section total portfolio on a quarterly basis, including climate metrics recommended by the DWP and TCFD as set out in section 4. On an annual basis, the Trustee receives more granular reporting on climate-related metrics at a fund and total DB portfolio level. This allows the Trustee to better identify and manage the climate-related risks which are relevant to the Scheme on an ongoing basis.

For all appointed DB and DC fund managers, evaluation of ESG risk management, which includes climate-related risks, is an explicit part of both the selection process and continued due diligence or monitoring that the Trustee undertakes. The Trustee also relies on the research carried out by its investment consultant in relation to investment managers' ability to identify and assess climate-related risks and opportunities.

At this stage in the Scheme's journey, the Trustee is still in the process of investigating how it can identify and assess physical and transition risks in a granular and Scheme-specific way, and then manage these. The Trustee is working with its investment consultant on this process, including investigating data sources available, how this data can be interpreted and how this data can be used to engage with investment managers on the management of climate-related risks.

Managing climate-related risks

The Trustee believes that engagement with its investment managers is one of the main ways in which the Trustee is able to manage climate-related risks and opportunities. The Trustee has formalised a Stewardship Policy. In line with the Trustee's commitment to integrating ESG issues into stewardship practices, the Trustee will act in accordance with the Stewardship Policy and, where relevant, expects its investment managers to actively engage with investee companies to better manage climate-related risks. The Trustee is supported in this engagement by its investment consultant.

The case study summarised on page 7 also provides an example of the Trustee's oversight of investment managers in respect of climate-related risk management in 2022. As referenced in the case study, the Trustee appointed a specialist ESG portfolio analytics firm to work in collaboration with its investment consultant to perform climate risk analysis on the Scheme's two buy and maintain investment grade credit managers and present findings on areas of possible interest to the Trustee. The Trustee used this analysis, alongside the regular climate risk reporting from its investment consultant, to compare the two portfolios to each other, other peers and their benchmarks, and determine areas to challenge the managers on. The managers were then invited to meet with the Trustee and its investment consultant, to discuss the areas highlighted by the analysis and provide details of how they were, and were planning to, manage the identified risk areas.

Previously, the Trustee has used its risk management process to identify areas where investment guidelines in segregated funds could be improved from a climate perspective and areas to engage

with pooled fund managers on with respect to climate risk. This has previously led to changes in mandate guidelines. The case study below, which was briefly mentioned in the Strategy section, outlines the importance of climate-related risks in the Trustee’s decision-making process.

Case study: Climate risk consideration in fund selection decision

In 2022, the Trustee considered climate-related risks as a key factor in their decision-making process for whether to transition from their existing segregated fixed income mandate to a similar pooled fund with the same manager.

Working with their investment consultant and the relevant investment manager to become comfortable that the climate-related guidelines being introduced to the pooled fund were broadly similar to those in their segregated mandate was key in the Trustee’s process for deciding to proceed with the switch, which was completed in 2023.

Integration of climate-related risks in overall risk management

For the DB Section, climate-related risks are included in the same pension risk management framework dashboard that captures the Scheme’s overall investment objective and key investment risks. The Trustee receives this dashboard from its investment consultant at least quarterly, and also when considering any investment strategy change. Presenting the risks in this way enables the Trustee to consider climate-related risks alongside the other key investment risks and take a proportionate approach to managing risks in the round.

For the DC Section, as set out above, the Trustee is working with the Company to assess the future of the DC benefits in the Scheme, which may include transferring them to an alternative arrangement. One of the factors the Trustee will consider in relation to any alternative arrangement is its ability to demonstrate an effective approach to monitoring and managing climate-related risks.

4. Metrics and Targets

With regards to quantitative metrics, the Trustee – on a quarterly basis – monitors and reports:

Metric	Selected metric	Explanation
Metric 1 – absolute emissions metric	Total Absolute GHG Emissions (tCO ₂ e).	This is the absolute emissions metric recommended by the DWP.
Metric 2 – emissions intensity metric	Carbon Footprint (tCO ₂ e/EVIC £m).	This is the emissions intensity metric recommended by the DWP.
Metric 3 – additional climate change metric	NGFS 2°C Disorderly Transition Stress Test	This metric is the output of the asset-side scenario analysis. It provides an indication of the direction and magnitude of climate risk the Scheme is exposed to under this specific climate scenario. The other metrics adopted do not provide an assessment of risk, which is why the Trustee chose this metric, despite it not being expressly listed in the DWP’s guidance. The Trustee intends to review the effectiveness of this metric over 2023.
Metric 4 – portfolio alignment metric	Science-based target initiative (“SBTi”)	This metric examines whether a voluntarily disclosed company decarbonisation target is aligned with a relevant science-based pathway to align with the goals of the Paris Agreement. The target is verified by the Science-based target initiative.

Further detail on each of the adopted metrics is set out in Appendix C.

The Trustee will periodically review its selection of metrics to ensure they remain appropriate for the Scheme.

Target

Linked to the Scheme’s strategic net-zero ambition, as set out in Section 2 – Strategy, the Trustee, in 2021, set a target for the non-LDI assets of the DB Section of the Scheme to achieve a 33% reduction in carbon footprint from 30 September 2019 levels by 2025. This target was based on aggregated scope 1, 2 and 3 emissions (as measured by Metric 2 – Emissions Intensity Metric), with a deduplication factor applied to scope 3 emissions to overcome double-counting. LDI assets were excluded from this target as they are held for hedging purposes.

This target was chosen with the objective of the Scheme having a positive impact as part of the transition to a more sustainable, low carbon economy. The Trustee considers that actions taken to achieve this target were consistent with its fiduciary duties to the Scheme's members. It was recognised that other investment opportunities may arise to be impactful, and that stewardship and effective engagement are important tools to achieving more sustainable outcomes.

This target was achieved as at 31 December 2022, with a 42% reduction in carbon footprint from 220 to 128 over the period, which is a greater than 33% reduction. There were several contributing factors to meeting this target, including changes to the investment strategy (e.g. introduction of renewable infrastructure, divestment from relatively high emitting multi-class credit fund), changes in asset allocation due to selling some assets to raise cash to post as LDI collateral, and limitations in the quality of the target set initially.

On this final point, as the Trustee has continued to receive training in this area and data availability has developed, the Trustee recognises that some aspects of the target were not as suitable as they could have been. Particularly:

- a) The 2019 baseline carbon footprint was calculated using asset class assumptions, which the Trustee has since considered is not the most suitable approach to set a target against. Since then, for measuring progress against this target, the Trustee has begun to use actual holdings data for funds where MSCI carbon emissions data availability is greater than 50% of holdings,
- b) Scope 3 emissions, with a deduplication factor applied (following MSCI's methodology), were aggregated with scope 1 and 2 emissions in the calculation of carbon footprint. There is a lack of consensus across the industry on how to manage the issue of double-counting, and the Trustee has considered that a blanket application of a fixed deduplication factor across all funds/holdings may not be suitable. The Trustee has since begun, as below, to measure and monitor scope 3 emissions separately from scope 1 and 2 emissions.

Given the above, the Trustee plans to review the Scheme's carbon footprint reduction target over 2023.

DB Section results:

The below tables set out the results of each of the Trustee's chosen metrics, broken down by broad asset class. The results are shown as at both 31 December 2022 and 31 December 2021:

	Asset Allocation		Metric 1: Absolute Carbon Emissions (tCO ₂ e) ⁽¹⁾				Metric 2: Carbon Footprint (tCO ₂ e/ £m) ⁽¹⁾			
	2022	2021	2022		2021		2022		2021	
			Scopes 1 & 2	Scope 3	Scopes 1 & 2	Scope 3	Scopes 1 & 2	Scope 3	Scopes 1 & 2	Scope 3
Liquid Markets	6%	7%	2,724	19,997	4,364	34,906	35	254	29	235
Liquid Credit⁽³⁾	36%	47%	23,096	126,639	62,797	349,898	47	260	65	361
Illiquid Credit	9%	6%	23,461	123,090	24,638	129,266	192	1,006	192	1,006
Illiquid Markets	15%	9%	2,190	9,678	2,378	8,318	11	47	13	45
LDI⁽⁴⁾	33%	32%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	100%⁽⁵⁾	100%	51,471	279,404	94,177	522,388	58	314	64	357

	Asset Allocation		Metric 3: NGFS 2°C Disorderly Transition Stress Impact on Assets		Metric 4: Science Based Targets initiative (SBTi) Rating	
	2022	2021	2022	2021	2022	2021
Liquid Markets	6%	7%	-18.0%	N/A	44.7%	N/A
Liquid Credit⁽³⁾	36%	47%	-7.2%	N/A	29.9%	N/A
Illiquid Credit	9%	6%	-11.4%	N/A	N/A	N/A
Illiquid Markets	15%	9%	-7.2%	N/A	N/A	N/A
LDI⁽⁴⁾	33%	32%	-14.5%	N/A	N/A	N/A
Total	100%⁽⁵⁾	100%	-10.8%	N/A	N/A⁽²⁾	N/A

¹ Carbon metrics (metrics 1 and 2) are proxied where there is insufficient data for funds.

² SBTi ratings are unavailable for the illiquid credit, illiquid market and LDI holdings, so totals have not been aggregated.

³ Liquid credit has omitted sovereign debt exposure. There is no industry consensus on the methodology of calculating sovereign bonds carbon emissions. This is something the Trustee is looking to include in the following report as developments are made and the industry reaches a consensus.

⁴ The MSCI data used for the other asset classes does not provide carbon emissions data for sovereign debt, which means LDI cannot be included using this data. The Scheme's LDI manager has also been unable to provide carbon emissions estimates.

⁵ Figure may not sum due to rounding.

Metrics 1 & 2:

The absolute carbon emissions reported above demonstrate the total share of direct and indirect emissions for which the Scheme's assets are responsible and therefore helps the Scheme to measure its progress towards its net-zero commitment.

The Scheme's carbon footprint reveals how carbon efficient the portfolio is per million pounds invested (based on scope 1 & 2 emissions, and scope 3 emissions separately). This measure provides an insight into the carbon intensity of the Scheme's assets, and contributes to the Target outlined above.

As at 31 December 2022, illiquid credit contributes similar absolute emissions as the liquid credit allocation, despite the liquid credit allocation being around four times larger. This is driven by the carbon footprint of illiquid credit being around four times larger than that of liquid credit. The prior year, liquid credit contributed more emissions than illiquid credit, driven both by a higher allocation and exposure to a multi-class credit fund with a higher emissions profile, which was divested from over the year. This effect can be observed from the reduction in carbon footprint over the year for liquid credit, whilst it did not change for illiquid credit (where an asset class assumption is used, rather than actual holdings data).

The Scheme's liquid markets allocation consists solely of an equity index fund, which has the lowest carbon footprint amongst the Scheme assets. This is due to the equity index the Scheme tracks, which is an index which excludes companies with fossil fuel reserves. Though the allocation to this fund in percentage terms stayed broadly flat over the year, the pound value of this allocation almost halved, leading to the absolute emissions roughly halving too. The carbon footprint remained broadly similar year-on-year.

The relatively low illiquid markets emissions metrics are driven by a relatively low carbon footprint from the underlying assets, particularly the renewable infrastructure allocation. However, it should be noted that an asset class assumption is used for each of the renewable infrastructure funds invested in, rather than actual holdings data. The absolute carbon emissions and carbon footprint of the illiquid markets allocation did not change materially over the year as the fund allocations did not change materially, but slightly decreased over the year as the lower-emitting renewables infrastructure funds became a slightly larger proportion of total illiquid markets assets.

The Trustee's investment consultant advised that, in absence of being able to estimate LDI carbon emissions using consistent data from MSCI, as used for the rest of the portfolio, a common approach is to source carbon emissions estimates from a scheme's LDI manager directly. Although many LDI managers can provide this, the Scheme's LDI manager was unable to provide such data. This is an area which the Trustee will engage its LDI manager on over 2023.

It is also worth noting that as coverage of the overall portfolio improves, the Scheme is likely to see an increase in the total emissions attributed to the portfolio. The Trustee is also aware that it is placing a large reliance on the Government achieving its net zero ambition. This is due to the material allocation that the Scheme has to UK Government bonds, although these assets are not yet included in the carbon emissions figures and in the Scheme's decarbonisation target.

Metric 3:

The NGFS 2°C Disorderly Transition Stress may provide an indication of the direction and magnitude of climate risk the Scheme is exposed to, based on a scenario viewed as relatively possible to occur.

The analysis suggests that all asset classes across the Scheme’s portfolio are expected to experience adverse outcomes under this scenario, with the worst outcome for liquid markets (i.e. equities).

However, the Trustee is reviewing the usefulness of this metric and will provide an update in the next TCFD report.

Prior year results are not reported as this analysis was not produced for the Scheme as at 31 December 2021.

Metric 4:

The portfolio alignment metric helps the Trustee to monitor the proportion of holdings within the Scheme’s liquid mandates which have declared a science-based decarbonisation target. Monitoring this metric supports the Trustee in its progress towards the Scheme’s own emissions-based targets.

Portfolio alignment is lower across liquid credit than liquid markets, but this includes a wide range across different liquid credit funds, with one with >50% alignment but all others with <20%. Prior year results are not reported as this analysis was not produced for the Scheme as at 31 December 2021.

Data coverage:

As well as using these metrics where appropriate in investment decision-making, one conclusion from this analysis is that data coverage is relatively low across the portfolio for different metrics (e.g. carbon emissions not including sovereign debt and portfolio alignment not including illiquid assets). The data coverage figures can be seen in the table included in Appendix C.

The Trustee aims to improve this data coverage, and quality, over time through engagement with its investment consultant, investment managers and the wider industry, where relevant. The table below outlines the current data coverage of the Scheme for calculating carbon emissions, as the baseline to improve from:

Data coverage	% of portfolio for 31 December 2022 analysis
Funds with >50% coverage, so reported emissions used and scaled to 100%	36%
Funds with >50% coverage, so emissions estimated using asset class proxies	30%

Data coverage	% of portfolio for 31 December 2022 analysis
Fund where emissions not available	34%

As outlined earlier, emissions for sovereign debt are not currently included in the MSCI data used for other asset classes, and the Scheme’s LDI manager was unable to provide their own estimates for the LDI portfolio, Therefore, LDI is excluded from the absolute carbon emissions and carbon footprint. Given the nature of LDI being made up of sovereign debt (and related instruments), SBTi alignment (i.e. the proportion of underlying companies with SBTi-aligned decarbonisation targets), no score can be calculated.

Underlying holdings data is not readily available for private markets (i.e. illiquid credit and illiquid markets) in the same way as it is generally is for public markets (i.e. liquid credit and liquid markets). The Trustee understands that, in the wider experience of its investment consultant, carbon emissions data for private markets holdings is largely estimated even when it can be obtained. Therefore, taking a proportionate approach, the Trustee has opted to use asset class assumptions for these assets.

DC Section results:

The below table sets out the results of each of the Trustee’s chosen metrics broken down by broad fund, for the same “popular arrangements” as considered for the climate scenario analysis:

	Proportion of total DC assets	Metric 1: Absolute Carbon Emissions (tCO ₂ e) ⁽¹⁾		Metric 2: Carbon Footprint (tCO ₂ e/ £m) ⁽¹⁾		Metric 3: NGFS 2°C Disorderly Transition Stress	Metric 4: Science Based Targets Initiative Rating ⁽²⁾
		Scopes 1 & 2	Scope 3	Scopes 1 & 2	Scope 3		
BlackRock DC 70/30 Global Growth	56%	1,724	17,652	86	884	-43.7%	N/A
BlackRock DC Pre-Retirement	15%	95	643	17	117	-2.8%	N/A
BlackRock DC Index-linked Gilt	14%	0	0	0	0	0%	N/A
BlackRock DC Cash	11%	0	0	0	0	0%	N/A

¹ Carbon metrics (metrics 1 and 2) are proxied for all funds, but cannot be estimated for sovereign debt or cash, so are set at zero for the BlackRock DC Index-linked Gilt, BlackRock DC Cash and a large part of the BlackRock DC Pre-Retirement

² Climate stresses are set at zero for sovereign debt and cash, so are zero for the BlackRock DC Index-linked Gilt and BlackRock DC Cash.

³ A Science Based Targets Initiative Rating cannot be obtained when using asset class assumptions.

Data availability and coverage:

The Trustee has performed all DC Section analysis using asset class assumptions. This is for three reasons:

- a. The Trustee is, as outlined earlier, focused on moving the DC Section to an alternative arrangement to improve governance and member experience, so is not expecting to have a long-term influence on the DC investment strategy which it could use to improve climate-related metrics. Therefore, it was viewed as proportionate to use a lower cost and time-intensive approach to measuring the DC Section metrics.
- b. Further, given both the relatively small size of DC assets compared to DB assets, the results for the DC Section are considered of lower importance at an overall Scheme level, Again, the

Trustee therefore viewed it as proportionate to use a lower cost and time-intensive approach to measuring the DC Section metrics.

- c. Finally, the Trustee did initially attempt to use actual underlying security holdings data where data is available (following the same approach as for the DB Section), but the process for obtaining the data became more time consuming than expected, again highlighting the appropriateness of the proportionate approach set out under the two points above.

As outlined earlier, the Trustee's investment consultant researches and considers possible ways to improve data quality across asset classes, including sovereign debt and cash, on an ongoing basis. As developments are made in the area, the Trustee expects its investment consultant to bring potential methods for improvement to IFC meetings for the committee to consider. The Trustee will report on any developments in this area made over 2023 in its next TCFD report.

Metric 1 & 2:

The most popular arrangement, BlackRock DC 70/30 Global Growth, has the highest carbon footprint of the funds analysed. Furthermore, it also has the highest asset base, leading to significantly higher carbon emissions than the next most popular arrangement, BlackRock DC Pre-Retirement. This is true for both scopes 1 & 2 and scope 3 emissions. However, this may in part be affected by the comments below.

There is no industry consensus on the methodology of calculating sovereign bonds carbon emissions, which affects the emissions calculations for each of the BlackRock DC Index-linked Gilt, BlackRock DC Cash and the BlackRock DC Pre-Retirement. This is something the Trustee is looking to include in the following report as developments are made and the industry reaches a consensus. Due to this, it is, at this stage, difficult to draw conclusions from this data.

Prior year results are not reported as this analysis was not produced for the Scheme as at 31 December 2021.

Metric 3:

The results broadly align with those of metrics 1 and 2, with the analysis showing BlackRock DC 70/30 Global Growth to be significantly more exposed to the climate transition than BlackRock DC Pre-Retirement.

Similar to above, these results are limited by the treatment of sovereign debt and cash, which a stress is not estimated for. This limits the usefulness of this metric.

As for the DB Section, the Trustee is reviewing the usefulness of this metric and will provide an update in the next TCFD report.

Prior year results are not reported as this analysis was not produced for the Scheme as at 31 December 2021.

Metric 4:

A Science Based Targets Initiative Rating cannot be obtained when using asset class assumptions, therefore this analysis is not available for any of the funds.

The Trustee will consider the approach to measuring and reporting on this metric and will provide an update in the next TCFD report.

Prior year results are not reported as this analysis was not produced for the Scheme as at 31 December 2021.

Note: All analysis is provided by the Scheme's investment consultant, Redington Ltd ("Redington"), and the data in the report is sourced from MSCI ©. Please refer to the data disclaimer in Appendix C.

Appendix A. Sustainable Investment Beliefs Statement

The Trustee previously agreed its sustainable investment beliefs as articulated in the statement below. This details the governance framework which was adopted by the Trustee in 2020 to approach matters relating to sustainable investment.

"We believe that Environmental (including Climate Change risks), Social and Governance issues are complex, multifaceted and may impact the value of our investments. We consider these risks to be of concern over the short, medium and long term. For example, the physical risks associated with climate change are likely to only manifest over the medium to longer term, however regulatory and transition risks are clearly present now and we should factor this into our decision making.

Further to this, we aspire to align with our corporate sponsor by dedicating resource to considering how the Scheme could potentially achieve net-zero carbon emissions by 2035. We recognise that at the current time it is not obvious how we can do this, but we will work with our asset managers and advisors to move towards this target, and report on our progress on an annual basis. It may mean that we have to consider new opportunities that we are not yet familiar with. We will have to dedicate significant time to ensure that we continue to understand the implications of our decisions. We will only take action when we are comfortable it is consistent with our fiduciary duty and in the best financial interests of our members. Whilst we have not yet approached members to ask for their views on ESG issues, it may be appropriate to do so for some sections of the Scheme in the future.

We believe that by adopting this objective we are having a positive impact as part of the transition to a more sustainable, low carbon economy. We recognise that other investment opportunities may arise to be impactful, however we may not have the time or resources to access them. We will rely on our advisors to provide appropriate opportunities for us to review.

Whenever we select new investment managers we must make ourselves comfortable that they can adequately manage ESG-related risks and invest in line with our beliefs. Managers should be periodically reviewed and held to account. If we are not satisfied that our managers are investing responsibly, we will engage with them to try to improve, but ultimately will terminate their mandate if improvements are not made.

Stewardship and effective engagement are important tools to achieving more sustainable outcomes. All of our managers should exhibit good stewardship practices and we monitor to them to ensure they do so. To inform our view of best practice, we will engage with our peers and other industry practitioners. We have an ambition to become a vocal, public leader in the field of responsible investment. We believe it is important to be transparent, continually learn from our practices and share our experiences with members and peers."

The Trustee's Sustainable Investment (SI) Policy builds on the investment beliefs statement above, reflecting further deliberations by the Trustee over ways to achieve its sustainable investment ambitions, including the net zero goal. It also reflects broader advancements in the industry and Scheme approach.

Appendix B: Scenario Analysis

The Network for Greening the Financial System (NGFS) is a group of 91 central banks and supervisors and 14 observers committed to sharing best practices and developing environment related risk management in the financial sector and mobilising mainstream finance to support the transition.

The NGFS scenarios have been developed to provide a common starting point for analysing climate risks to the economy and financial system and incorporate important themes including increasing electrification and a spectrum of new technologies to tackle remaining hard-to-abate emissions.

NGFS explored scenarios consistent with the framework published in the First NGFS Comprehensive Report covering:

- **Orderly (1.5°C or 2°C)** - climate policies are introduced early and become gradually more stringent. Both physical and transition risks are relatively subdued.
- **Disorderly (1.5°C or 2°C)** - higher transition risk due to policies being delayed or divergent across countries and sectors. For example, carbon prices would have to increase abruptly after a period of delay.
- **Hot house world** - some climate policies are implemented in some jurisdictions, but globally efforts are insufficient to halt significant global warming. The scenarios result in severe physical risk including irreversible impacts like sea-level rise.

MSCI ESG Research leverages the NGFS scenarios to create its “Climate Value-at-Risk (Climate VaR)” metric. Note that this is not a probabilistic VaR but their naming convention for their scenario analysis. MSCI’s stresses assess how an investment portfolio could be impacted by climate policy risk (transition risk) and extreme weather (physical risk) under each scenario. Each stress is presented as the annual cost, discounted using company-specific WACC to today, calculated as a % of current Enterprise Value. The stress reflects the full time series of costs to 2100 (not annualised), with 15 years modeled using detailed cost estimates and the rest using MSCI’s proprietary cost profile modeling.

Two notable limitations to the NGFS scenarios in their current form are:

- a) They do not currently make an allowance for the potential positive stress arising from assessing how companies may take advantage of untapped growth potential presented by the transition to a lower-carbon economy (i.e. the ‘technology opportunity’). This could have a material effect on the scenario analysis results.
- b) Physical stress is currently modelled the same across all scenarios, assuming business-as-usual policy implementation. The introduction of scenario-specific physical risk analysis could have an effect on the scenario analysis results, but this is not expected to be material given the discounting approach used within the modelling.

The Scheme Actuary has noted that their projections are subjective and arguments could be made for different outcomes.

In their input into the scenario analysis from a sponsor covenant perspective, the Trustee's covenant advisor noted that it did not have data on risks specific to the Scheme's direct sponsors, so assumed that the key climate risks to the covenant are similar to those for the wider Group, which it did have data for. The analysis is also largely dependent on the outcome of the Group's ongoing business transformation plan, which is subject to change.

Appendix C: Metrics methodologies and assumptions

Key notes on the methodologies, including assumptions, used for the four climate metrics are set out below.

1. Absolute emissions:

The Trustee monitors the total greenhouse gas emissions of the Scheme's assets. Greenhouse gases are gases in the Earth's atmosphere that are capable of absorbing infrared radiation and thereby trap and hold heat in the atmosphere. The main greenhouse gases are carbon dioxide ("CO₂"), methane ("CO₄"), and nitrous oxide ("NO₂"). Recognised protocol is to aggregate these emissions and translate them to a carbon dioxide equivalent ("CO₂e") for consistency of measurement and reporting.

There are three scopes of carbon emissions:

- **Scope 1** emissions are direct emissions from an entity's owned or operationally controlled sources;
- **Scope 2** emissions are those from the use of electricity purchased by an entity;
- **Scope 3** emissions are indirect emissions from the use of company's products, or any other emissions across its supply chain.

For a pension scheme, scope 1 emissions include the use of gas fuel and refrigerants in the office whilst scope 2 emissions include the use of electricity in the office buildings. Therefore, the most significant emissions relating to a pension scheme are its scope 3 emissions, (i.e. the emissions of the assets held by the Scheme). The Trustee monitors the scope 1, 2 & 3 emissions of the assets and does not report on its own scope 1 & 2 emissions.

There is inherent double-counting of emissions in the current greenhouse gases protocol and no clear guidance on how to combine scope 1 & 2 and scope 3 emissions to allow for this double-counting. Therefore, the Trustee has reported scope 1 & 2 and scope 3 emissions separately.

The analysis is performed at a fund level. This is based on the line-by-line holdings data for liquid funds where data availability is 50% or greater (which includes the Scheme's equity fund and three of its four liquid credit funds), and asset class assumptions are used for the remaining funds.

The Trustee notes using asset class modelling of emissions for assets where this data is not available enables a more holistic view of the Scheme's total portfolio emissions, albeit recognising that the modelled data is not perfect.

The asset class modelling of emissions has been provided by the Trustee's investment consultant and is based on asset class "building blocks". These are either calculated directly using a given index's underlying holdings emissions (such as using MSCI ACWI as a proxy for a broad equity fund) or in some cases these indices are used and extrapolated to other asset classes based on given assumptions (such as using the emissions of infrastructure firms within an index to proxy an infrastructure fund).

2. Emissions intensity:

The Trustee monitors carbon footprint as its emissions intensity metric. Carbon footprint measures the carbon efficiency of a portfolio in terms of emissions per million pounds invested. It normalises the

total financed emissions for the value of the portfolio. In other words, as it shows the emissions per millions of pounds invested, the metric is comparable between investments of different sizes.

At a portfolio level, the emissions intensity measures are calculated as the average of the emissions intensity of the underlying holdings, weighted by the value of each holding. A portfolio with a high emissions intensity will have a steeper route towards decarbonisation than a less intensive one. Hence, measuring the emissions intensity across the Scheme is useful to gauge how difficult (or easy) it will be to progressively decarbonise portfolios.

Differences in portfolio emissions intensities are driven by differences in sector and company exposure. Portfolios with higher exposures to high-carbon sectors such as utilities, non-energy materials, energy and industrials tend to exhibit higher emissions intensities.

The same notes on methodology and assumptions that apply for the Absolute Emissions metric apply here.

For the target based on this metric, the Trustee applied a 0.22 deduplication multiplier to all portfolio companies' scope 3 emissions, to adjust for the double counting incurred by aggregating scope 3 emissions with scope 1 and 2 emissions. This is the discount factor applied by the Scheme's ESG data provider, MSCI, and it is based on the relationship between the total scope 1 and scope 3 emissions of a company.

3. Additional climate change metric

For the non-emissions-based metric, the Trustee has opted to utilise the NGFS 2°C Disorderly Transition stress. The methodology for this stress test is detailed in Appendix B, but with the DB Section scenario analysis focused only on the assets within the DB Section, rather than the full funding stress. The reason for this approach is to make the metric more useful in day-to-day investment decision-making.

4. Portfolio alignment

The Trustee has agreed to adopt the Science Based Target's initiative assessment score as the Scheme's portfolio alignment metric, which captures a company or issuer's progress against a self-developed decarbonisation target using science-based methodology.

The target can be aimed at one or all of; the short term, long term or Net Zero, with each company being scored with a binary yes or no assessment on the following target categorisations: "SBTi Approved 1.5 C", "SBTi Approved Well Below 2 C" or "SBTi Approved 2 C". Each of the categorisations all denote the implied global temperature increases that coincide with the decarbonisation target.

The "SBTi Approved 2 C" categorisation will be gradually phased out in line with the initiative's raised ambition to 1.5C. In the immediate term, the Trustee will continue to report under the "SBTi Approved 2 C" categorisation to capture companies currently on a 2C path until they increase their target ambition to 1.5C in the next few years.

Asset class assumptions cannot be used here, so the SBTi score of illiquid assets is proxied as nil.

Fund	Fund Value (£m)	MSCI Climate Metrics Coverage %	Absolute Carbon Emissions (tCO2e)				Carbon Footprint (tCO2e / EVIC £m)				
			Current – Scope:		Previous – Scope:		Current – Scope:		Previous – Scope:		
			1+2	3	1+2	3	1+2	3	1+2	3	
Liquid Markets (Equities)											
LGIM FTSE TPI Global (ex Fossil Fuel) Equity Fund (OFC)	78.9	98.0%	2,724	19,997	4,364	34,906	34.5	253.5	29.4	235.3	
Liquid and Semi-Liquid Credit											
Mercer UK Cash Fund	9.4	-	0	0	0	0	0.0	0.0	0.0	0.0	
Amundi Buy & Maintain Fund	205.8	96.8%	9,468	45,797	18,912	74,770	46.0	222.7	48.4	191.5	
Insight Buy & Maintain Bond Fund	200.5	66.7%	7,271	47,007	13,833	146,544	36.4	235.3	40.0	423.8	
Hermes Absolute Return Credit Fund Segregated Account	18.7	-	1,958	10,423	7,069	30,218	104.5	556.2	117.4	501.7	
PIMCO Low Duration Opportunities Fund	52.6	-	4,399	23,412	2,780	14,796	83.6	444.9	83.6	444.9	
Illiquid Credit											
Mercer Private Investment Partners III Fund (Offshore)	33.8	-	6,471	33,950	9,853	51,695	191.7	1,005.9	191.7	1,005.9	
Mercer Private Investment Partners IV SICAF-SIF - Senior Private Debt Fund	41.8	-	8,013	42,041	7,907	41,486	191.7	1,005.9	191.7	1,005.9	
Mercer Private Investment Partners V SICAF-SIF - Senior Private Debt Fund	46.8	-	8,977	47,099	6,878	36,085	191.7	1,005.9	191.7	1,005.9	
Illiquid Markets											
LGIM LPI Income Property Fund	165.1	-	2,158	7,411	2,376	8,161	13.1	44.9	13.1	44.9	
Mirova Energy Transition 5 Fund	21.1	-	18	1,308	0	0	0.9	62.1	0.0	0.0	
Stonepeak Global Renewables Fund	8.4	-	14	959	2	157	0.9	62.1	0.9	62.1	
TOTAL PORTFOLIO	881.9		51,471	279,404	94,177	522,388	58.3	316.3	64.4	357.3	

All "Current Total Portfolio" figures in this table are weighted averages with the exception of "Fund Value" and "Absolute Carbon Emissions (tCO2e)".

"Previous" figures show climate metrics from 12 months prior to "Current" figures. Fund-level "Previous" figures may not sum to the "Previous Total Portfolio" figures because the "Total Portfolio" values may contain funds that have now been divested from and not reported in this table.

Carbon metrics are proxied where there is insufficient data for funds. In these instances, no figure is shown for MSCI Climate Metrics Coverage.

ESG and MSCI Carbon Metrics meet the current minimum UK DWP's TCFD-aligned "Metrics and Targets" regulations. However, regulations are subject to change.

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Appendix D: Glossary of Terms (ESG and Carbon Metrics)

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

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

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

MSCI Climate Metrics Coverage: The proportion by value of a fund for which carbon metrics are available from MSCI. Climate metrics are proxied where coverage is low and in this case, the MSCI Climate Metrics Coverage will be assumed to be "-".

Scope 1 & 2 Carbon Footprint (tCO₂e / EVIC £m): Measurement of the scope 1 & 2 CO₂e emissions of a fund per million pounds of EVIC. Scope 1 emissions refer to those which are directly connected to the production of a company's product or service. For example, the burning of fossil fuels to power the electricity grid. Scope 2 emissions refer to those from the electricity used to power the facilities and machinery of a company.

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

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

SBTi Score: The Science-Based Targets initiative ("SBTi") sets out a framework through which companies can set out their decarbonisation pathway and have them assessed against the goals set out in the Paris Agreement – limiting global warming to 1.5°C above pre-industrial levels or well-below 2°C. The SBTi Score is the proportion of assets invested that are classified as being Paris-aligned.