

# The Honda Group – UK Pension Scheme

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

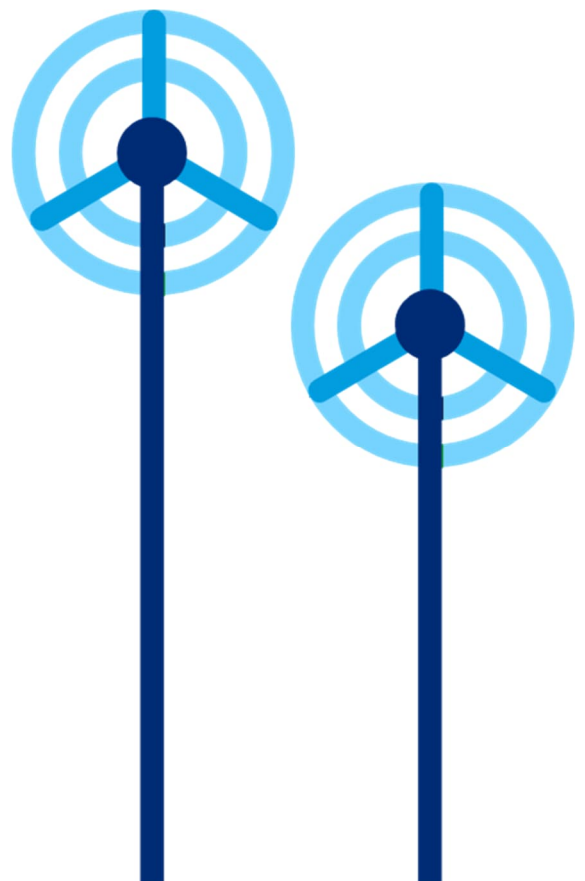
Reporting period: 12 months to 31 March 2023

October 2023



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# Executive Summary

This report sets out the disclosures of the Honda Group – UK Pension Scheme Trustee Limited, as Trustee of The Honda Group – UK Pension Scheme (the “Scheme”), and covers the Scheme’s year ending 31 March 2023. This report has been prepared in line with the recommendations of the TCFD and the statutory requirements prescribed by the Department of Work and Pensions<sup>1</sup>. As such, it focuses on the areas of Governance, Strategy, Risk Management and Metrics and Targets.

In summary, this report details:

- Key aspects of the Trustee’s Climate Governance Policy, which outlines the roles and responsibilities of the Trustee and the Investment and Covenant Committee (the “ICC”) (a sub-committee established by the Trustee);
- The Trustee’s beliefs with respect to environmental, social and corporate governance (“ESG”) considerations, including in the area of climate change;
- The training received by the Trustee and ICC at multiple meetings over the year from its investment advisers and investment managers, particularly in relation to TCFD-related regulations and setting climate-related targets;
- The steps taken by the Trustee in response to the risk posed by climate change and its impact on the long-term funding objective for the Scheme;
- The key findings from the Trustee’s climate change scenario analysis and climate metric analysis;
- The Trustee’s processes to identify, assess and mitigate climate change risk;
- The five climate metrics that the Trustee has selected to better inform its understanding of climate-related risks and opportunities: (1) total greenhouse gas emissions, (2) carbon footprint, (3) weighted average carbon intensity (“WACI”), (4) implied temperature rise and (5) data quality. The Trustee has agreed to monitor WACI as an additional data point but not as a formal TCFD metric;
- The target set by the Trustee to improve the data quality metrics of the assets in which the Scheme invests.
- The Trustee’s ambition to reduce the Scheme’s exposure to climate-related risks, where possible.

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<sup>1</sup> The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 and the Occupational Pension Schemes (Climate Change Governance and Reporting) (Miscellaneous Provisions and Amendments) Regulations 2021

## Section 1

# Introduction

Dear Members,

Welcome to our first climate change report, which has been prepared in line with the recommendations of the Task Force on Climate-related Financial Disclosures (“TCFD”) and the statutory requirements prescribed by the Department of Work and Pensions.

The Honda Group – UK Pension Scheme Trustee Limited (“the Trustee”) of the Honda Group – UK Pension Scheme (“the Scheme”) <sup>2</sup> has a legal fiduciary responsibility to invest the Scheme’s assets in the best way possible for its members. As part of this responsibility, the Trustee recognises climate change as a risk that could impact the financial security of members’ benefits if it is not properly measured and managed. The Trustee also recognises that climate change presents an opportunity, by investing in companies or assets that are expected to perform well in an economy that is positioned to address the challenges associated with climate change.

The Trustee’s assessment of climate-related risks and opportunities has been carried out based on information that is currently available, both in terms of data from the companies and assets in which the Scheme invests and in consideration of the different global warming scenarios we have analysed. This data is subject to change as climate change reporting improves.

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



<sup>2</sup> Defined Benefit Scheme and the only scheme that sits under this trust.

**This report has been split into several sections to help members understand:**



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

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

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

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

The final section sets out the methodology and assumptions used to produce the information contained in this report.

As always, members are encouraged to contact the Trustee if there are comments you wish to raise. You can contact the Trustee using the following email address [honda@aon.com](mailto:honda@aon.com).

Trustee of the Honda Group – UK Pension Scheme



## Section 2

# Governance



### Trustee's governance approach

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

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

- The Trustee believes that environmental, social, and corporate governance (“ESG”) factors have a material impact on investment risk and return outcomes, and that good stewardship can create and preserve value for companies and markets as a whole. The Trustee also recognises that long-term sustainability issues, particularly climate change, present risks and opportunities that increasingly require explicit consideration.
- The Trustee has appointed Mercer Global Investment Europe (“MGIE”) as delegated investment manager for the Scheme. MGIE makes use of underlying sub-investment managers which are appointed to manage the majority of the Scheme's assets. These sub-investment managers are given full discretion in evaluating ESG factors, including climate change considerations. This also applies to exercising voting rights and stewardship obligations attached to the investments, in accordance with their own corporate governance policies and current best practice, including the UK Corporate Governance Code and UK Stewardship Code.
- The strategic rationale of different asset classes that help the Trustee to achieve the Scheme's investment objectives and constraints remains the primary driver behind the Scheme's investment strategy. However, within this context, the Trustee is increasingly considering how ESG, climate change and stewardship is integrated within investment processes in appointing new investment managers and monitoring existing investment managers.

- Following recommendations made by the TCFD, on a phased basis pension schemes will be expected to disclose how climate-related risks are measured, monitored and managed in relation to the Scheme’s investments. Therefore the Trustee has proactively worked closely with their investment managers and Mercer to understand the requirements, availability of data and the process of setting quantifiable targets.
- With the assistance of their advisors, the Trustee has undertaken an assessment to better understand the overall level of ESG integration across the Scheme’s asset allocation, where relevant. Monitoring is undertaken on a regular basis and this makes use of the investment consultant’s ESG ratings. Specifically, the Trustee has:
  - Collaborated with the Honda Motor Europe Limited (“Company”) and confirmed that the Trustee’s ESG beliefs are aligned with the Company’s 2030 vision;
  - Historically written to the Scheme’s existing managers with the lowest ESG rating (rated by Mercer as ESG4 at the time of writing) and sought a formal response on how the respective investment managers will improve in areas related to ESG.

## Roles of those undertaking scheme governance activities

The Trustee maintains oversight of climate related risks and opportunities by:

- Appointing the Investment and Covenant Committee (the “ICC”), with the purpose of supporting and guiding the Trustee with matters relating to the Scheme’s investments, including the initial work on compliance with the regulatory requirements and TCFD recommendations. It is anticipated that this ongoing reporting will be integrated into the business of the Trustee and its sub-committee going forwards. The Trustee’s approach to the oversight and management of climate-related risks and opportunities is consistent with its approach to considering other financially material risks and opportunities facing the Scheme.

The Trustee will consider the recommendations of this sub-committee and will ratify any decisions that require its approval. Of relevance to the oversight of climate-related risks and opportunities are:

### The ICC

The ICC is responsible for:

- Supporting and guiding the Trustee’s work on compliance with the regulatory requirements and TCFD recommendations including:
  - Liaising with professional advisers on the Trustee’s proposed objectives;
  - Ensuring appropriate time and resource is allocated to climate governance and reporting; and
  - Facilitating information sharing between the Trustee, professional advisers and investment managers as appropriate.

### The Scheme Secretary

The Scheme Secretary is responsible for:

- Assisting with the organisation of meetings;
- Facilitating reporting to the Trustee Board;
- Facilitating appropriate communications to members;
- Assisting the Trustee in the general running of the Scheme.

The Trustee expects the Scheme Secretary to keep informed about updates and progress within the pensions industry on an ongoing basis. They attend Trustee training sessions and receive current thought pieces and articles via their Investment Consultant and other industry publications.

## Roles of advisers

The Trustee has appointed advisers to the following roles:

### Investment Consultant

- Advises on strategic asset allocation taking into account climate risk, supported through the provision of climate scenario analysis;
- Advises on the choice of climate-related metrics and targets as well as changes to investment mandates;
- Advises on manager selection, taking into account the Trustee's sustainability beliefs and climate-related targets;
- Monitors investment manager performance against relevant climate-related targets (where possible);
- Supports the Trustee with stewardship activities, which may be related to climate change, such as monitoring and reporting on voting and engagement activities of the invested assets;
- Liaises with investment managers and other professional advisers to provide training to the Trustee on climate change, as appropriate; and
- To assist the Trustee in producing the Scheme's TCFD report on an annual basis.

### Funding Adviser

- Advises on the funding position including an understanding of the potential funding impact resulting from changes to financial or demographic assumptions driven by climate change;
- Advises on funding strategy robustness to climate risk. Provides input to enable strategic asset allocation decisions to be made considering impact of climate risks on funding strategy; and
- Where appropriate will provide input into scenario analysis and advise on funding implications.

### Covenant Adviser

- Assesses the Company's ability and willingness to continue to support the Scheme. Climate-related exposures are considered alongside other factors that could have a positive or negative impact on the strength of the Company's covenant; and
- Where appropriate will provide input into scenario analysis and advise on covenant implications.

**Assessment of Advisors:** The Trustee expects advisers to act with integrity and diligence in fulfilling the set objectives and use meetings with the advisers to assess and challenge them. Where relevant, this includes discussion of the steps taken by advisers to identify and assess any climate-related risks and opportunities.

The approach of the investment consultant to climate change and how it is integrated into its advice and services is assessed as part of the adviser selection and monitoring process. The Trustee sets its investment consultant annual objectives, including ones related to ESG and climate change competency. The investment consultant is formally assessed against these objectives annually.



## Role of Fiduciary Manager

As noted, the Trustee has appointed MGIE as delegated investment manager for the Scheme.

As part of the sub-investment manager selection and monitoring process, MGIE considers the level and extent to which sub-investment managers take into account ESG factors, including climate change, in their investment process and stewardship activities (such as voting and engagement with the underlying companies or issuers they invest in).

## Time and resources spent on climate change-related matters

The Trustee Chair, with support from the ICC, is responsible for ensuring that sufficient time is allocated for consideration and discussion of climate matters by the Trustee and its advisers. The Trustee, as part of its regular meeting schedule, will allocate agenda time to climate change topics, amongst other ESG topics, to cover the various workstreams listed below. Those responsible for each workstream will make sure any documents or information is distributed in advance of the meeting to allow the Trustee time to digest the advice.

There are a number of workstreams that are to be completed regularly in order for the Trustee to fulfill its responsibility for managing climate risks and opportunities. It is important to note that many of the workstreams will cover wider ESG risks other than just climate change risk, as the Trustee does not consider climate risks in isolation but holistically alongside the various other ESG risks the Scheme may be facing. The workstreams are listed below as well as the frequency of which each task is carried out. One particular topic the Trustee has spent a significant amount of time on during the year is how to integrate a climate target into the guidelines of the buy & maintain credit portfolio which is due to be funded in the near future.

- Climate change training session (minimum frequency = usually at least triennially);
- Scenario analysis modelling the investment strategy and funding strategy (minimum frequency = in 2023 and every 3 years thereafter);
- Review appropriateness of undertaking updated scenario analysis in light of a) data availability changes b) material changes in investment strategy / funding position (minimum frequency = annual);
- Metrics data collection (minimum frequency = annual);
- Target setting / target appropriateness review (minimum frequency = annual);
- Progress against target assessment (minimum frequency = annual);
- ESG beliefs (including climate change) update / review (minimum frequency = usually at least triennially);
- Review of manager ESG ratings, climate policies (minimum frequency = usually annual);
- Stewardship, covered as part of the Trustee's annual implementation statement (minimum frequency = annual);
- Risk frameworks update/review e.g. risk register (minimum frequency = usually annual, managed by the Scheme Secretary);
- Climate covenant assessment (minimum frequency = triennially, but can be annual);
- Drafting annual TCFD report (minimum frequency = annual).

## Training

During the year to 31 March 2023, the Trustee and the ICC received training from the Scheme's Investment Consultant, covering climate-related investment risks and reporting requirements in line with the TCFD recommendations. This included training on:

- The importance of climate scenarios;
- Climate targets for the Scheme in order to help the ICC agree which target(s) to propose to the Trustee by defining the baseline year and time horizon, the asset classes to focus on and which metrics to focus on;
- An overview of the rationale and consideration behind a long-term / net zero target which could help inform decision making on adopting interim targets to meet the regulatory requirements;
- Outlining a framework for setting target(s) for the Scheme.

Training needs for the Trustee are identified through feedback during the TCFD project and related workstreams, including as analysis is presented for the different aspects of the report (e.g. climate scenario analysis, metrics, targets etc.). These training requirements are then considered as part of the broader Trustee training programme.

## Section 3

# Strategy



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

To help with this assessment, the **Trustee** has defined short, medium and long-term time horizons for the **Scheme**.

Short Term	Medium Term	Long Term
5 years	10 years	25 years
To be set following the outcome of the upcoming strategy review.	Long enough timeframe to have a meaningful impact on climate metrics.	Expect to have substantially de-risked or bought-out – climate risk unlikely to be material at this point.

The Trustee has considered the following short, medium and long-term drivers of risk in relation to climate change:

### Over the short term:

Risks may present themselves through rapid market re-pricing relating to the climate transition as:

- Scenario pathways become clearer. For example a change in the likelihood of a well below 2°C scenario occurring (i.e. an increase in probability would be expected to drive additional transition risk).
- Market awareness grows. For example, the cost and impacts of the transition suddenly influence market pricing.

- Policy changes unexpectedly surprise markets. For example, if a carbon price or significant regulatory requirement was introduced across key markets to which the portfolio is exposed, at a sufficiently high price to impact behaviour.
- Market sentiment is shocked. For example, falls in markets could create a downward spiral where economic sentiment worsens and asset values fall.
- Perceived or real increased pricing of greenhouse gas emissions/carbon.
- Substitution of existing products and services with lower emission alternatives may impact part of the portfolio.
- Litigation risk relating to dangerous warming becoming more prevalent.
- Increases in the energy/heat efficiency of buildings and infrastructure.

As well as risks associated with these drivers, there could also be opportunities. For example, investing in climate solutions as policy support strengthens.

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

#### **Over the medium term:**

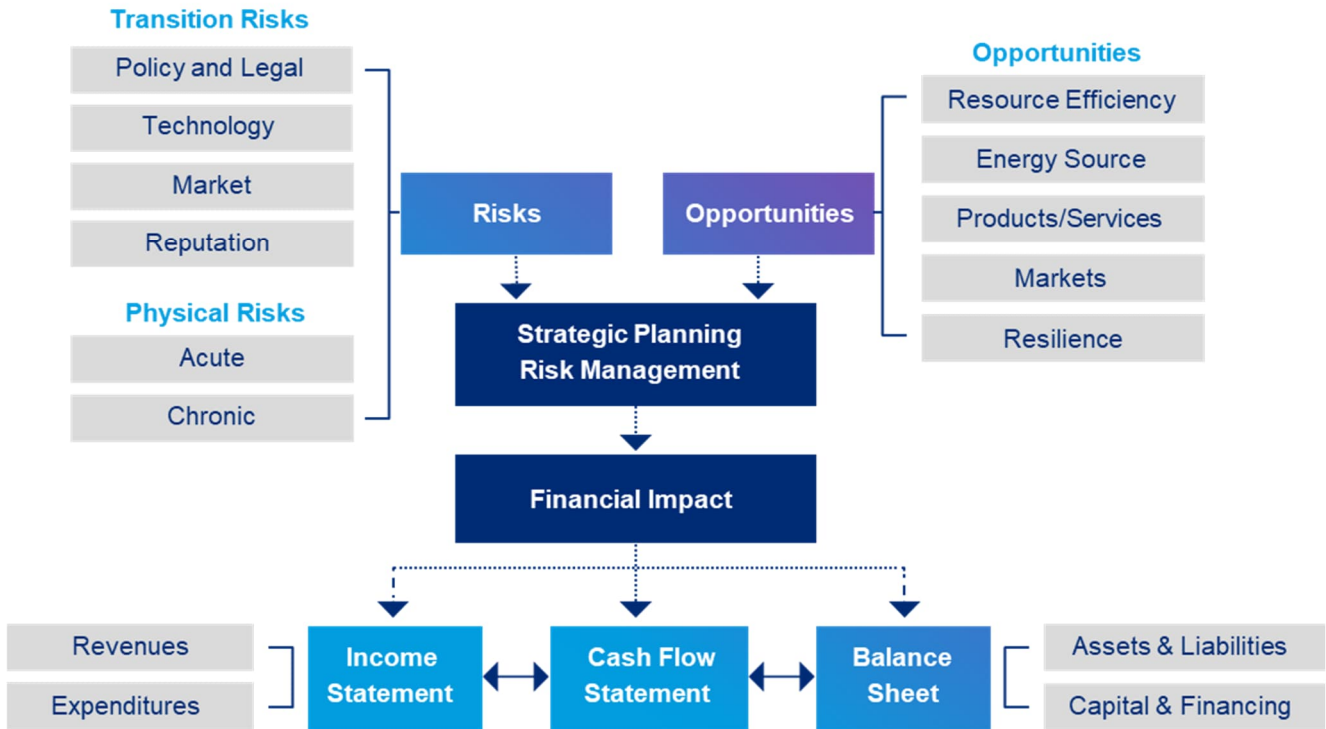
Risks are likely to be more balanced reflecting both transition and physical risk. Over this time period the transition pathway will unfold and the level of anticipated physical damage will become clearer. While the full extent of the physical damage is unlikely to have occurred, markets are likely to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

The Trustee's ability to understand these changes and evolve the portfolio as the pathway develops should help to control risk and potentially enhance returns. The Trustee seeks to select managers and choose asset classes that can identify potential emergence of low carbon opportunities and the decline of some traditional sectors.

#### **Over the long term:**

Physical risks are expected to come to the fore. This includes the impact of natural catastrophes leading to physical damages through extreme weather events. Availability of resources is expected to become more important if changes in weather patterns (e.g. temperature or precipitation) affect the availability of natural resources such as water. The impact of global heating on productivity, particularly in areas closer to the equator, will also be a key driver.

**Figure 1 – Transition Risks and Opportunities**



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

## Climate-related risks and opportunities relevant to the Scheme

Having taken into account the Scheme’s strategic asset allocation, as set out in the Technical Appendix, the following risks and opportunities have been identified:

- Over the short term, the Trustee has identified the inter-related risk of climate transition risk and asset repricing risk as being most relevant to the investment strategy. Over this time period opportunities are most likely to occur in transition related investment such as climate solutions.
- Over the medium term, the Trustee has concluded that both transition risk and physical risk (particularly in the form of asset repricing to allow for future physical damage) could be material.
- Over the long term, the Trustee has identified physical risk as the key driver of climate-related risk.

The Trustee has investigated the potential impacts of these risks and opportunities in the scenario analysis that follows.

## Testing the resilience of the investment and funding strategy

### Scenarios analysis

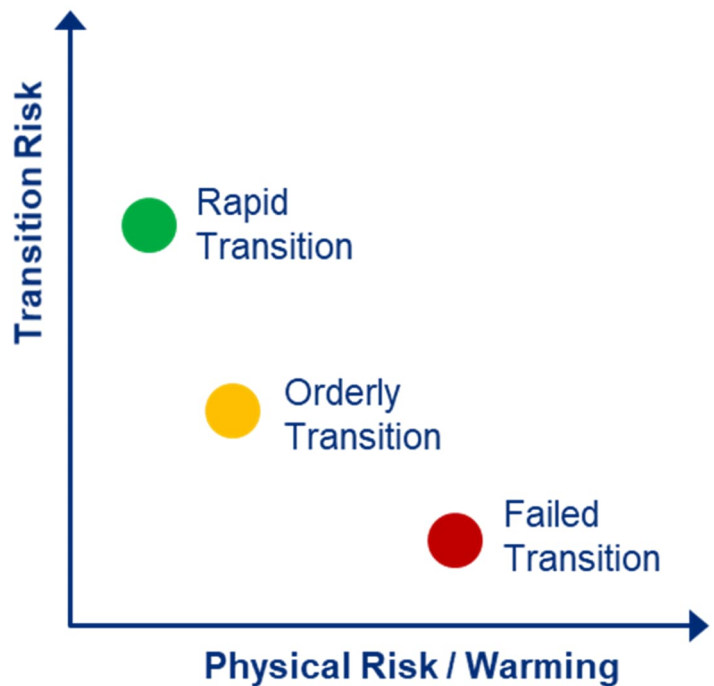
The Trustee has undertaken climate scenario analysis to test the resilience of the investment and funding strategy adopted by the Trustee. Quantitative and qualitative climate change scenario analysis has been undertaken on the Trustee’s strategic asset allocation (at the time of the analysis) to assess the potential implications of climate change under three modelled scenarios. The scenarios were the following:

- A Rapid Transition (1.5°C);
- An Orderly Transition (less than 2°C); and
- A Failed Transition (greater than 4°C).



The analysis is based on scenarios developed by Mercer working with Ortec Finance.

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



Source: Mercer

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

The Trustee has selected these scenarios to provide a relatively wide range of possible future outcomes including testing the potential impact both in terms of physical damages as well as asset re-pricing under scenarios which model both swift and delayed (or even lack of) action. This enables the Trustee to gain a broad perspective on the potential climate-related risks and opportunities facing the Scheme in the future.

Further detail on climate scenario narratives, including modelling limitations, is included in the appendix A (Climate scenario modelling approach) of this report.

## Scenario Analysis Results

The charts below represent the output of the Trustee’s quantitative analysis of the investment and funding strategy. The charts represent projections of funding level and annualised returns from an analysis date of 30 June 2022 over a period of 25 years. Projections ignore the impact of any future contributions that may be made. Projections assume an evolving asset allocation that allows for future expected de-risking over time. Further detail on the underlying asset allocations and limitations associated with climate scenario analysis are set out in the Technical Appendix.

<sup>2</sup> The baseline represents what we are assuming the market is currently pricing in. The baseline includes a 10% weight to a **Failed Transition**, 40% weight to an **Orderly Transition**, 10% to a **Rapid Transition** and 40% to a range of **low impact scenarios**.



**Figure 2 – Summary results of climate change scenario analysis**

	Annualised Returns (%)		Funding Level (%)	
	Expected Return (Baseline)	Climate Impact	Funding Level (Baseline)	Climate Impact
<b>Rapid Transition</b>				
Impact at 5 years	5.9%	-0.3%	99.0%	-1.4%
Impact at 10 years	5.5%	-0.1%	101.5%	-1.1%
Impact at 25 years	5.7%	+0.0%	114.2%	+0.2%
<b>Orderly Transition</b>				
Impact at 5 years	5.9%	-0.1%	99.0%	-0.8%
Impact at 10 years	5.5%	+0.0%	101.5%	+0.0%
Impact at 25 years	5.7%	+0.0%	114.2%	+0.5%
<b>Failed Transition</b>				
Impact at 5 years	5.9%	+0.1%	99.0%	+0.6%
Impact at 10 years	5.5%	-0.1%	101.5%	-0.9%
Impact at 25 years	5.7%	-0.2%	114.2%	-5.1%

Source: Mercer

Under a Failed Transition scenario, there may be a material negative impact over the longer term, but generally the funding level impacts in most scenarios are modest. This reflects the de-risking of the investment strategy which has taken place to date and is further expected over time.

## Scenario Analysis Findings

In light of the above quantitative analysis, the Trustee noted the following findings:

<b>Short Term (5 years)</b>	Over the short term transition risk dominates with the Rapid Transition having the biggest impact. An initial fall in asset returns (relative to baseline) is driven by a transition shock impacting the economy and investment markets causing losses. This could be driven by unprecedented policy action, with markets initially overreacting before partially recovering. The actual timing of any shock or recovery is uncertain. Under this scenario there is a shock to financial markets in year 4 followed by a partial recovery the following year. The recovery is a large proportion of the initial shock on the basis that credit spreads widen and then narrow again with only limited additional default experience. A more extreme scenario where initial losses are sustained by defaults should not be disregarded.
<b>Medium Term (10 years)</b>	Over the medium term, transition risk and physical risk are both factors. The impact of transition risks under the Rapid Transition and physical risks under the Failed Transition are broadly similar, meaning transition risks and physical risks are similarly important. The Rapid Transition reduces funding level by 1.1% and the Failed Transition reduces funding level by 0.9%. The impact of the Orderly Transition is small on the basis that transition costs and impacts are smaller and largely priced in.
<b>Long Term (25 years +)</b>	Over the long term, physical impacts become significant, with the Failed Transition resulting in significant falls in asset value relative to the baseline. The Failed Transition reduces the funding level by 5.1% (to 109.1% from 114.2% in the baseline scenario). The key driver of losses in the failed transition scenario negative impacts on property returns. It is worth noting that all of these funding level outcomes represent a long term improvement on the current funding position.

The funding level analysis above takes into account the impact of changes to long-term interest rates and inflation expectations on the present value placed on the liabilities. Of note, realised inflation is expected to be elevated under the Rapid Transition, resulting from damages to agriculture and changes in food prices, increasing the value of benefits with inflation-linked increases. These impacts are largely hedged by the Scheme’s liability hedging strategy. It does not, however, explicitly take into account the impact of changes to mortality.

**Climate change in respect of the Sponsoring Employer (the Company)**

The ongoing financial strength of the Company is important for the Scheme as it ultimately underwrites the Scheme by paying contributions (when required) to support/improve the funding position over time. The Scheme also relies on the Company’s operational capabilities in terms of certain administrative and governance activities. As such, the impact of climate change on the Company is important for the Trustee to keep under review.

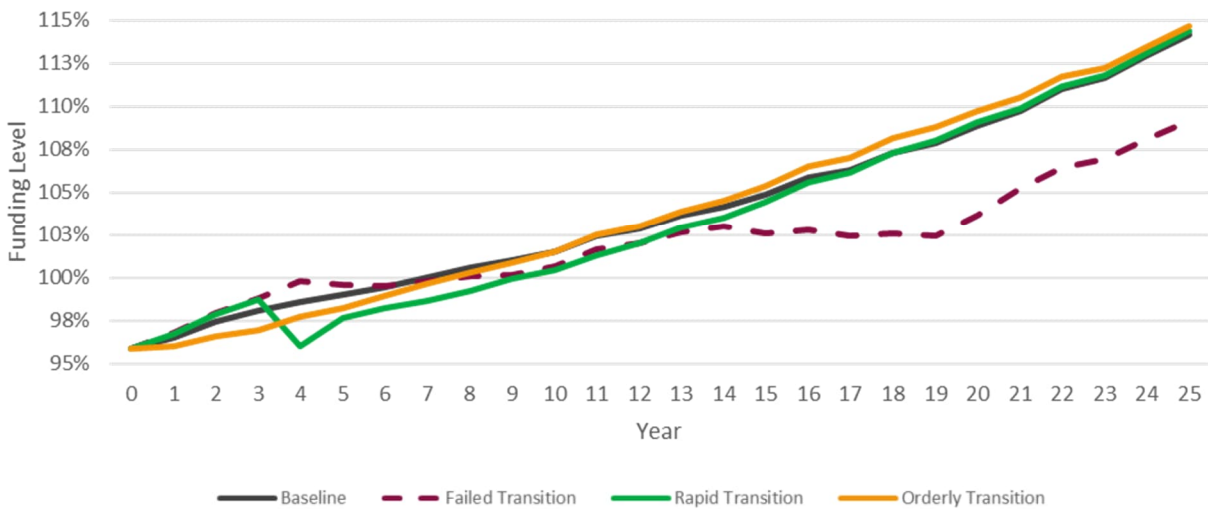
**Key conclusions**

**Conclusion 1 – A successful transition is an imperative**

Over the long term for nearly all investors a successful transition leads to enhanced projected returns when compared to scenarios associated with higher temperature outcomes, due to lower physical damages under a successful transition scenario.

The quantitative analysis in this report highlights the negative financial impact associated with the Failed Transition and the corresponding need for trustees to invest to support a successful transition within their fiduciary duty. This supports the view that long term investors collectively trying to bring about an effective transition is aligned to their fiduciary duty to seek the best return within risk, liquidity and complexity restraints.

**Figure 3 – 25 year projection results of climate change scenario analysis**



Source: Mercer

## Conclusion 2 – Sector exposure is key

Climate impacts are naturally sector specific. Supporting the quantitative analysis in this report, sector level analysis highlighted that differences in return impact are most visible at an industry-sector level, with significant divergence between scenarios.

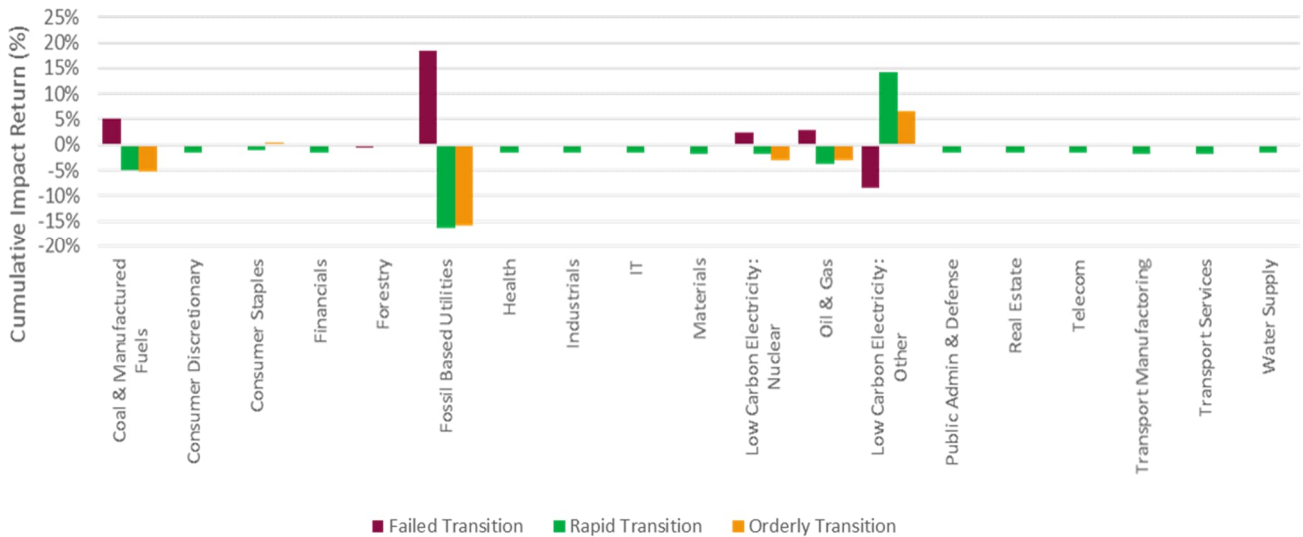
As return impacts in this modelling are expressed relative to a climate-informed baseline, sector-specific impacts are driven both by what happens under the scenarios, but also by what does not happen (but was priced in). For example, there is a positive impact on the low carbon electricity sector under the Rapid Transition, which is an intuitive outcome. Alternatively, there is a positive impact on the oil & gas sector under the Failed Transition, which is a result of the sector performing better than expected in this scenario (i.e. more revenue than expected for underlying companies).

Naturally, climate exposure varies greatly by sector. This is illustrated by the charts below which show the cumulative impact on different sectors within developed global equities.

This can inform portfolio construction in a number of ways:

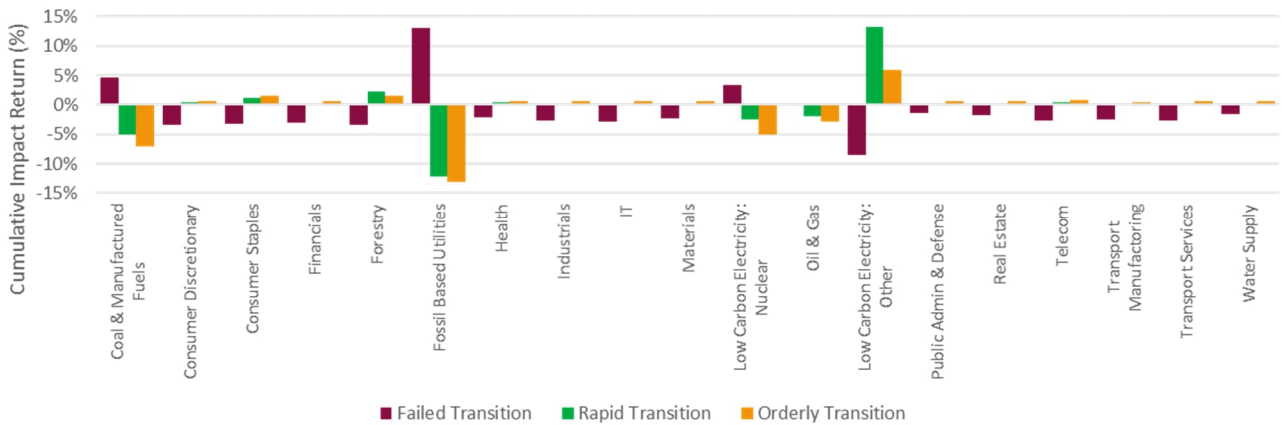
- Consider tilting portfolio or benchmarks in both equity and corporate bond portfolios to vary sector exposures;
- Discuss with current or potential investment managers the sector exposures and how they account for sector specific climate risk;
- Understanding key risk exposures can prioritise areas of focus for engagement or decarbonisation planning.

Figure 4 – 10 years cumulative impact return by sector



Source: Mercer

**Figure 5 – 30 year cumulative return impact by sector**



Source: Mercer

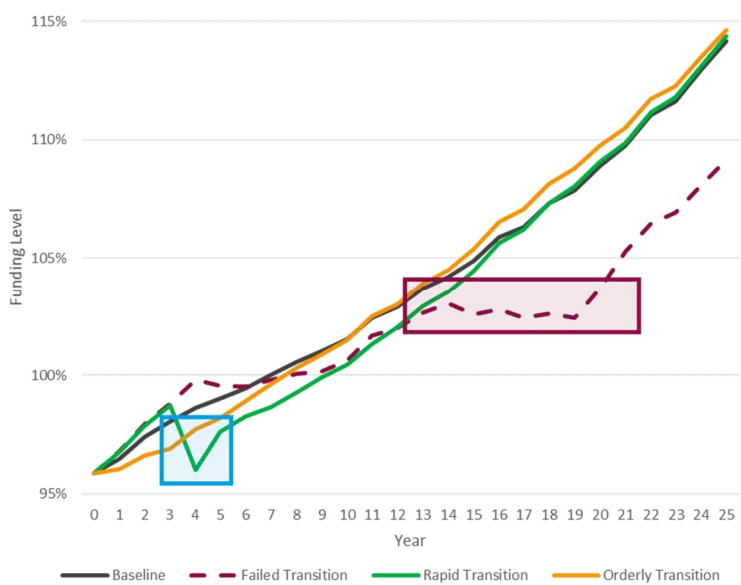
**Conclusion 3 – Investors should be aware of future pricing shocks**

Investors, and therefore “the market”, look to predict future events / impacts and allow for them in asset prices. As particular events become more likely, market pricing will change before the events occur. This means that longer-term impacts, including transition impacts and particularly physical damages, could impact portfolios earlier than they occur. In the climate scenario analysis repricing shocks are included within scenarios.

The quantitative analysis in this report seeks to demonstrate the impacts of such shocks.

The Rapid Transition includes a shock around 2027 pricing in (and over reacting to a degree to) transition costs [see blue box in Figure 6 below]. The Failed Transition includes shocks towards the end of the 2020s and 2030s pricing in future damage [see red box]. While the exact timing of such shocks is unknown, considering such shocks is important to risk analysis.

**Figure 6 – 25 year projection results of climate change scenario analysis**



Source: Mercer

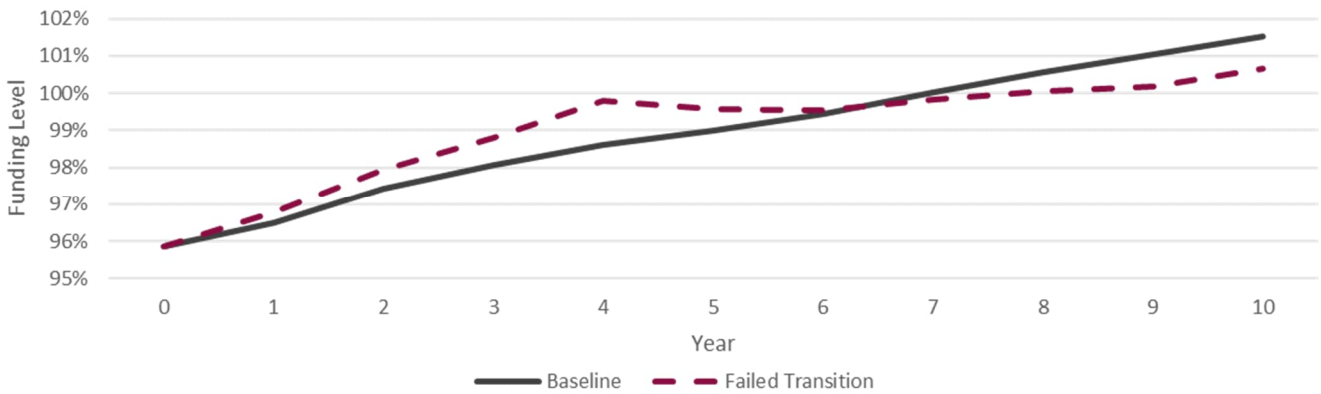
This finding informs the Trustee in thinking ahead in relation to managing climate-related risks and developing a robust portfolio long before climate impacts are expected to occur.

### Conclusion 4 – Market pricing is an important driver

Mercer’s scenario analysis assumes some climate impacts are allowed for in market pricing. This means the impact of a scenario is driven in part by what doesn’t happen in that scenario (but was priced in).

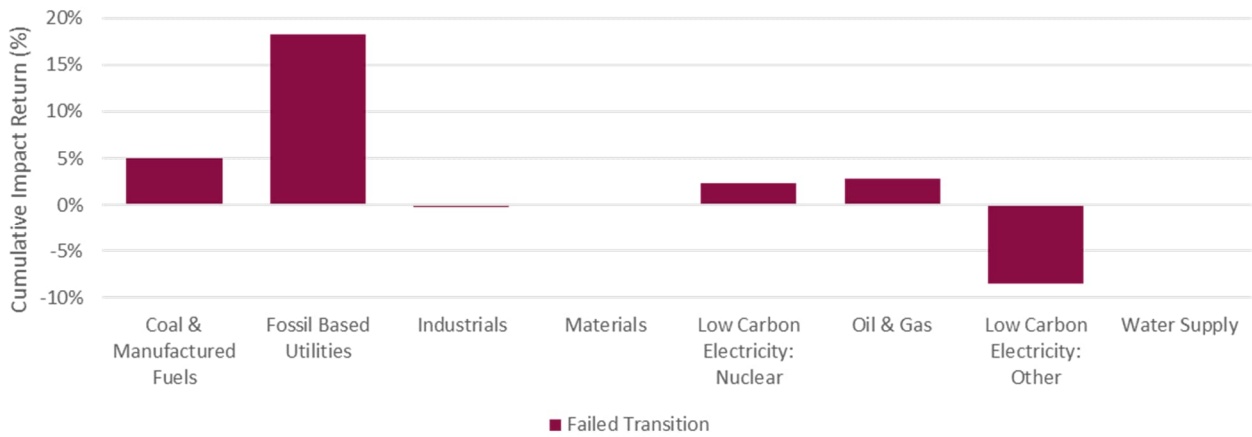
The charts below illustrate the Failed Transition impacts over 10 years. At this relatively shorter timescale, impacts are driven more by the lack of transition than the damage that will ultimately come. Fossil fuel sectors perform well as they experience greater demand than expected and renewables perform poorly due to a lack of expected support.

Figure 7 – 10 year projection results of climate change scenario analysis



Source: Mercer

Figure 8 – 10 year cumulative return impact by sector



Source: Mercer

## Section 4

# Risk Management



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

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

## Governance

- The Trustee’s Statement of Investment Principles is reviewed on a triennial basis, or following a significant change in investment policy, and sets out how climate-related risks are managed and monitored.
- The Trustee maintains a risk register which includes explicit climate risks and an Integrated Risk Management (“IRM”) framework to monitor and mitigate financially material risks. The climate-related risks (defined as physical risks and transition risks) are reviewed annually to ensure the assessment of the likelihood and impact continue to remain appropriate for the Scheme given the developing research and understanding on this subject as well as new and emerging risks related to climate change.
- The Trustee receives training from time-to-time on climate-related issues. The training allows the Trustees to challenge whether the risks and opportunities are effectively allowed for in its governance processes and wider activities, and to be able to challenge its advisers to ensure the governance support and advice adequately covers the consideration of climate-related risks and opportunities. This process also affords the Trustee an opportunity to identify new and emerging risks related to climate change.



## Strategy

- The Scheme's advisors take climate-related risks and opportunities into account as part of the wider strategic investment advice provided to the Trustee and the ICC. This is increasingly expected to include highlighting the expected change in climate-risk exposure through proposed asset allocation changes, both from the top-down level (via climate scenario analysis) and bottom-up (via climate-related metrics).
- The Trustee believes that good stewardship and ESG issues may have a material impact on investment risk and return outcomes and are therefore considered as part of the Scheme's investment process. The Trustee also recognises that long-term sustainability issues, particularly climate change, present risks and opportunities that require explicit consideration. When setting investment strategy, and in particular when recommending changes, ESG factors, including climate change, are expected to be considered alongside a number of other factors that can influence investment strategy.
- Climate scenario analysis for the investment and funding strategy of the Scheme are reviewed at least triennially, or potentially more frequently if there has been a material change to the strategic asset allocation. Key findings from the Trustee's latest climate scenario analysis are set out in the previous section of this report. The impact of climate-related risks and opportunities is an input into regular employer covenant updates. Climate scenario analysis is the primary tool to help the Trustee understand the materiality of climate-related risks that could impact the Scheme over time.

## Reporting

- The Trustee will receive annual reports of climate-related metrics (where available) and progress against any targets that may be set. The Trustee may use the information to engage with the investment managers.
- The Trustee receives a voting and engagement activity summary on an annual basis as part of the preparation of the Engagement Policy Implementation Statement. The statement summarises how the investment managers have voted and engaged on climate-related issues (amongst other key engagement priorities, some of which may not be climate-related). The statement is available online <sup>1</sup>.

## Manager Selection and Retention

- The Trustee, with advice from Mercer in its role as Investment Consultant, will consider an investment manager's firm-wide and strategy-specific approach to managing climate-related risks and opportunities when either appointing a new manager, in the ongoing review of a manager's appointment, or as a factor when considering the termination of a manager's appointment.
- Mercer rates investment managers on the extent of integration of ESG factors (including climate change) into their processes. A manager's stewardship process forms part of the rating assessment. This is considered at the firm level and at the investment strategy/fund level. The ratings are presented in quarterly investment performance reports and are reviewed by the Trustee.
- The Trustee has appointed Mercer to act as fiduciary investment manager in respect of the majority of the Scheme's assets. MGIE makes use of underlying sub-investment managers which are appointed to manage the majority of the Scheme's assets. These sub-investment managers are given full discretion in evaluating ESG factors, including climate change considerations. This also applies to exercising voting rights and stewardship obligations attached to the investments, in accordance with their own corporate governance policies and current best practice, including the UK Corporate Governance Code and UK Stewardship Code.

<sup>1</sup> The Engagement Policy Implementation Statement is available online at <https://pensioninformation.aon.com/honda>

## Section 5

# Metrics and Targets



## Metrics

The Trustee has chosen to present climate-related metrics across four different categories in this report. The climate-related metrics help the Trustee to understand the climate-related risk exposures and opportunities associated with the Scheme's investment portfolio and identify areas for further risk management, including investment manager portfolio monitoring, voting and engagement activity and priorities. The metrics in this report relate to the Scheme's invested assets only and exclude emissions associated with the operation of the Scheme. The metrics in this report are listed below and where metrics relate to emissions, these cover scope 1 and 2. Assuming available data allows, the Trustee will begin reporting on scope 3 emissions in its next report.

Metric category	Selected metric	Further detail
<b>Absolute emissions</b>	Total Greenhouse Gas Emissions	Tonnes of carbon dioxide and equivalents (tCO <sub>2</sub> e) that the Scheme is responsible for financing.
<b>Emissions intensity</b>	Carbon Footprint	The amount of carbon dioxide and equivalents (tCO <sub>2</sub> e) emitted per million dollars of the Scheme's investments.
	Weighted Average Carbon Intensity (WACI)	The exposure of the Scheme to carbon-intensive companies, measuring the amount of carbon dioxide and equivalents (tCO <sub>2</sub> e) emitted per million dollars of holding company / issuer revenue <sup>3</sup> on average.
<b>Portfolio Alignment</b>	Implied Temperature Rise (ITR)	A forward-looking assessment of how aligned the Scheme's portfolios are relative to the Paris Agreement's <sup>5</sup> 1.5°C target. This is estimated based on the activities and decarbonisation targets of portfolio companies / issuers, relative to what global decarbonisation needs to be to achieve 1.5°C.
<b>Additional</b>	Data Quality	Represents the proportions of the portfolio for which the Trustee has high quality data.

The metrics presented in this report are as at 31 December 2022 and are based on the actual asset allocation at that date.

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

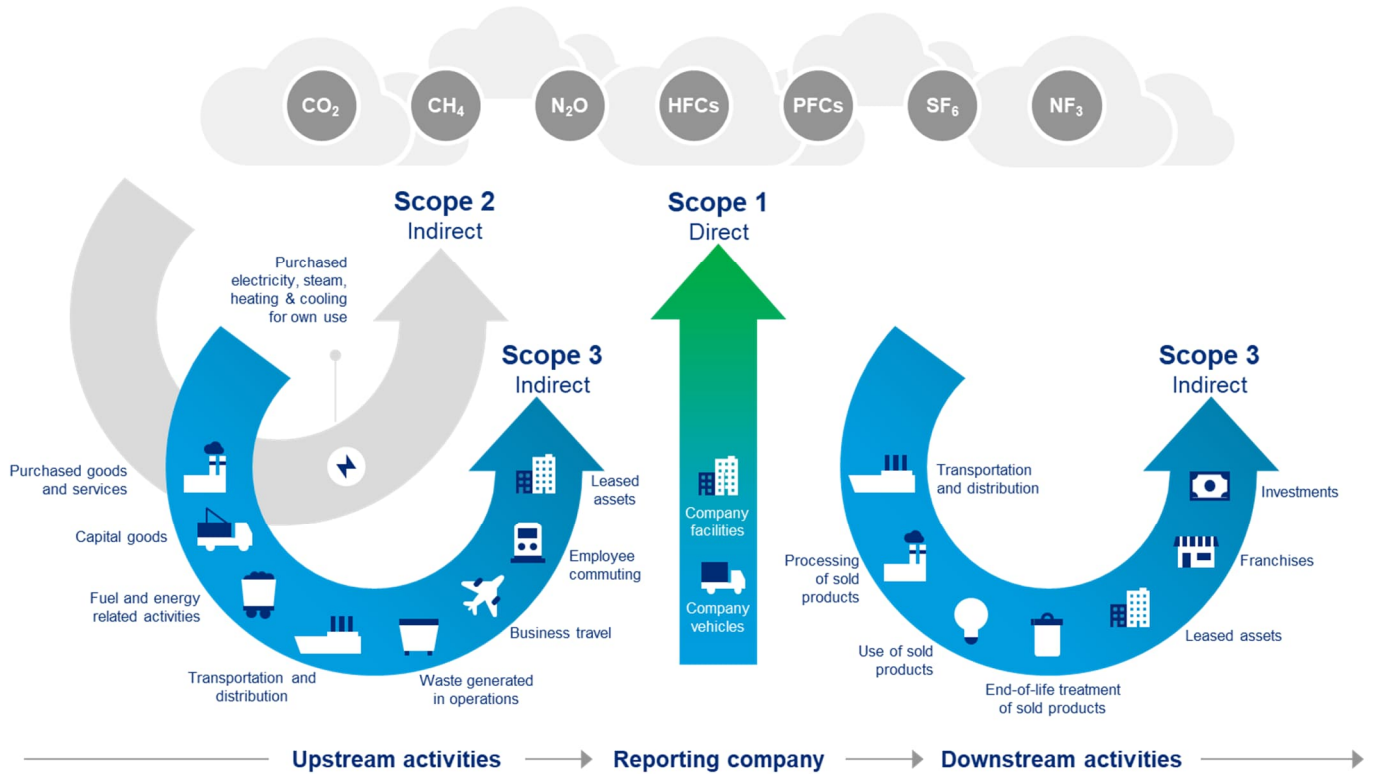
## Total Greenhouse Gas Emissions

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

<sup>3</sup> For sovereign bonds, Greenhouse Gas Emissions are expressed relative to Purchasing Power Parity adjusted Gross Domestic Product (PPP-adjusted GDP), in line with the Partnership for Carbon accounting of Financials guidance (PCAF).

<sup>5</sup> <https://unfccc.int/process-and-meetings/the-paris-agreement>

**Figure 9 – Scope 1, 2 and 3 emissions**



Source: GHG Protocol

Emissions of the seven greenhouse gases have different impacts on climate change. In order to simplify reporting, each greenhouse gas is calibrated relative to carbon dioxide and is reported as ‘carbon dioxide equivalent’ emissions (CO<sub>2</sub>e). In this way the Trustee can compare companies that emit different amounts of different gases on a consistent basis.

In respect of sovereign debt investments, the Trustee follows the Partnership for Carbon Accounting of Financials (‘PCAF’) to derive absolute emissions. Recognising the different methodologies used to calculate absolute emissions for sovereigns and corporates, the Trustee reports sub totals at the corporate and sovereign levels as well as grand total Greenhouse Gas Emissions figures.

### Carbon Footprint

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

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

### Weighted Average Carbon Intensity

The Trustee has agreed to monitor Weighted Average Carbon Intensity (WACI) as an additional data appoint but not as a formal TCFD metric. WACI is an alternative intensity measure of emissions that normalises a company’s total GHG Emissions figure by its revenue. This metric is calculated by taking the total carbon emissions of the investment and dividing by annual company revenue.

A different approach is taken for sovereign bonds, where the specified sovereign GHG Emissions are normalised by Purchasing Power Parity adjusted Gross Domestic Product (PPP-adjusted GDP). A

portfolio level intensity metric is calculated as the weighted average of the underlying holdings' intensity metrics.

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

## **Implied Temperature Rise**

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

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

The Trustee has chosen this metric to include in this report because it is a forward-looking measure and a useful way to see, at a glance, the positioning of a fund relative to 1.5°C economy.

The Trustee recognises that there are flaws in the methodology of Implied Temperature Rise data, in particular noting that there is no standardised approach that is taken, but that they expect this to improve over time.

## **Data Quality**

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

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

## Data collection

Manager / Mandate	Absolute GHG emissions	Emissions intensity		Other (non-emissions)		Valuation as at 31 Dec 2022 (£m / % Total Assets excl. Trustee bank account and cash reserve)
	Total GHG Emissions <sup>1</sup> (tCO <sub>2</sub> e)	Carbon Footprint (tCO <sub>2</sub> e/\$M invested)	WACI (tCO <sub>2</sub> e/\$M revenue)	Implied Temperature Rise (ITR, °C)	Data Quality <sup>2</sup>	
Capula Hedge Funds	n/a	n/a	n/a	n/a	n/a	£23.7m / 2.5%
Partners Group Private Equity / Infrastructure	n/a	n/a	n/a	n/a	n/a	£28.5m / 2.9%
Knighthood Distressed Debt	n/a	n/a	n/a	n/a	n/a	£19.8m / 2.1%
JP Morgan Infrastructure Equity <sup>3</sup>	49,180	n/a	300	n/a	n/a	£164.4m / 17.1%
M&G Secured Finance <sup>4</sup>	2,966	56	40	n/a	28.9%	£44.3m / 4.6%
Ares Secured Finance	n/a	n/a	n/a	n/a	n/a	£51.1m / 5.3%
Mercer Multi-Asset Credit	7,286	97	298	3.1	26.1%	£74.9m / 7.8%
PGIM Ground Lease Property	n/a	n/a	n/a	n/a	n/a	£126.8m / 13.2%
LGIM Buy and Maintain Credit / Sterling Liquidity Fund	n/a	n/a	n/a	n/a	n/a	£0.3m / 0.0%
LGIM LDI	55,317	65 <sup>5</sup>	123 <sup>5</sup>	1.9	100.0% <sup>5</sup>	£430.1m / 44.6%

Source: Investment Managers and Mercer. Emissions shown in tonnes unless stated otherwise. JP Morgan and M&G report in tons. Emissions intensity figures shown have been rebased to 100% to represent full coverage.

<sup>1</sup> Based on actual allocation as at 31 December 2022.

<sup>2</sup> Figures are based on reported and estimated data. LGIM LDI coverage is above 100% because it includes the leverage within the LDI portfolio, however we have capped this at 100% for the purposes of this table. 7.3% of M&G data is based on reported data, 21.6% based on estimated data and the remaining 71.1% is not available. 13.8% of Mercer MAC data is based on reported data, 12.3% is based on estimated data and the remaining 73.9% is not available (or is based on non-eligible instruments). The Data Quality split is not reported by LGIM, however, their team anticipate that it will be reported in 2023.

<sup>3</sup> Based on NAV, scaled for the Scheme's holding.

<sup>4</sup> M&G has provided total greenhouse gas (GHG) emissions based on "owned/financed emissions" covering \$188.5m of assets under management. Mercer has estimated the emissions at the Scheme level by applying the Scheme's \$ proportion of the assets under management. The exchange rate used to convert the Scheme's asset valuation to \$ has been sourced from Refinitiv.

<sup>5</sup> LGIM LDI carbon footprint is expressed in tCO<sub>2</sub>e per \$M Total Capital Stocks and the weighted average carbon intensity is expressed in tCO<sub>2</sub>e per \$M GDP. According to LGIM, data coverage for the LDI is 162%, although this allows for the data coverage of the three asset classes included under the portfolio: Gilts and ILGs / Gilts and ILGs funding / Cash. Their respective data coverage were 100%, n/a or 0% and 45%. For ease, this is capped at 100% for the LDI.



The grey colouring in the table above shows that a specific metric is not yet reported or was not able to be provided by investment managers at the time of writing. We have set out the reasons per manager below where data was not provided or is not available:

- Capula: Lack of data availability given the nature of the underlying investments in this hedge fund mandate. It should be noted that the Scheme fully redeemed Capula mandate over January 2023 and therefore no longer has exposure to this mandate.
- Partners Group: The manager has commented that data is not readily available, partly driven by the use of third-party managers in the fund vintages used by the Scheme. They expect data to become available over the next year and this is something that the Trustee and its advisor will monitor over time.
- JP Morgan: Lack of data availability regarding Carbon Footprint in tCO<sub>2</sub>e/\$M invested terms, ITR and Data Quality metrics.
- Knighthead: The mandate has not set a target for zero emissions and Knighthead do not report on any of these metrics.
- Ares: The Fund currently does not have a net zero carbon emissions framework. Ares have explained that investments made through their Alternative Credit strategies typically lack the appropriate levers of influence (i.e. governance) to effect meaningful change in environmental practices given that their investments are typically made at the asset-level rather the corporate level.
- PGIM: Lack of data availability regarding Carbon Footprint in tCO<sub>2</sub>e/\$M invested terms, ITR and Data Quality metrics.
- LGIM Buy and Maintain Credit and Sterling Liquidity Fund: The LGIM B&M and LGIM cash proceeds were transferred to the Scheme's LDI portfolio with LGIM to top-up the collateral available in the portfolio and therefore there were only residual holdings as at 31 December 2022. If this mandate is re-established in the future the Trustee expects that the manager will be able to report on a number of these metrics.

## Targets

Climate data availability is currently very limited for the Scheme's asset classes, therefore setting a meaningful target for carbon emissions (absolute or intensity-based) or implied temperature rise for most of the Scheme's investments is not possible at the time of writing.

The LGIM buy and maintain credit mandate, which is expected to feature in the Scheme's overall long-term investment strategy, was largely disinvested during the Gilt Market Crisis in late 2022 to top-up the collateral available in the LGIM LDI portfolio; as such there were only residual holdings as at 31 December 2022. However, the Trustee and Company have agreed to consider reintroducing the allocation to buy and maintain credit (at least in part) in the near term. The Trustee has identified this mandate as the most suitable to apply a climate-related target to, which it intends to do once it has started to be rebuilt.

Further investigation would be required in order to determine the feasibility of setting a specific target with LGIM once the allocation to the buy and maintain credit is restored. However from initial discussions it is expected that a measurable target, based one or more of the Scheme's metrics, will be possible to integrate into the investment guidelines with a target expected to be able to be set for 2030.

In the interim, the Trustee is required to set a target for the Scheme in relation to one of the metrics which have been selected to be monitored. The Trustee has therefore set an initial target to improve Data Quality.

It is the Trustee's ambition to reach a position of being as close as practically possible to 100% Data Quality (including reported and estimated data) by 31 March 2033. However, the Trustee recognises that this improvement is dependent on a wide range of factors, over which they have varying degrees of control. Specifically, in order to meet this target improvements are required across the broader asset management industry with regards to gathering and producing more widespread and consistent climate metric data. The Trustee notes in particular the challenges in this area where some of the more illiquid assets are involved, including property, private equity and private debt. The Scheme's investment strategy is expected to develop over time and the Trustee recognises that the allocations to these asset classes may reduce over the coming years which may naturally help improving the Scheme's overall Data Quality.

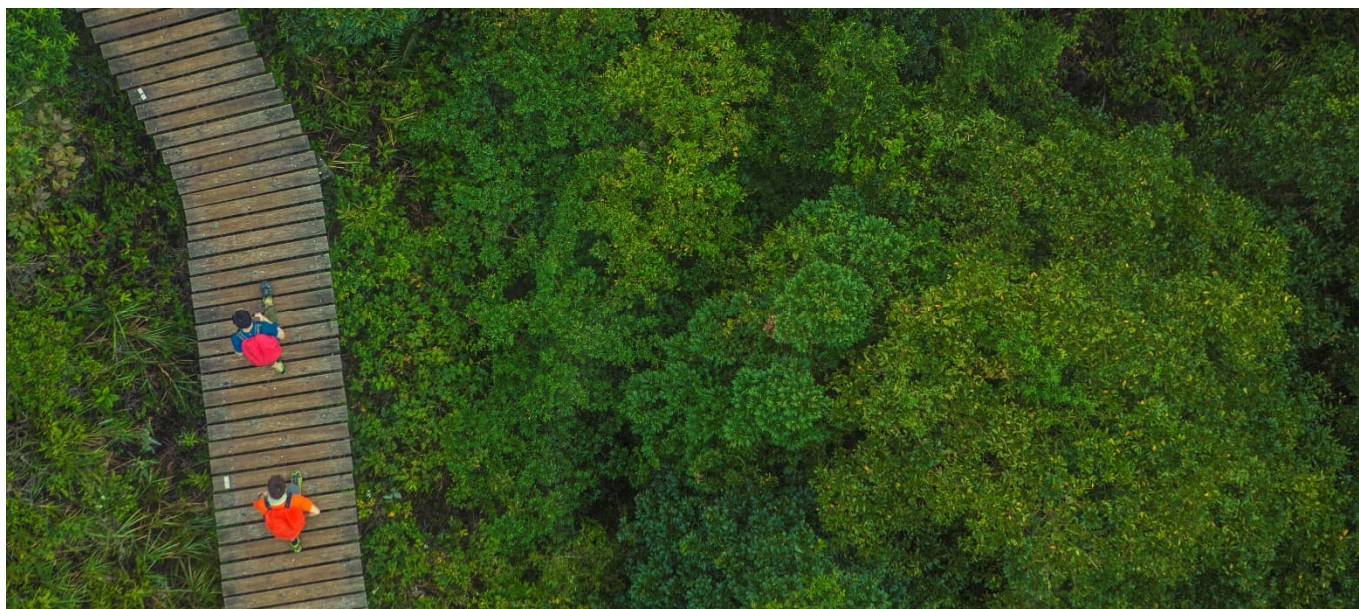
In order to help achieve this ambition, the Trustee intends to engage with the Scheme's investment managers and may consider utilising alternative data sources when gathering climate metric data going forwards.

The Trustee's target over the first year is to achieve increased Data Quality (in aggregate) for those mandates where Data Quality was reported in this first TCFD report (i.e. M&G Secured Finance, Mercer MAC and LGIM LDI) and to be able to report on Data Quality for at least one additional mandate in the Scheme's second TCFD report.

The Trustee will review the ongoing suitability of the targets it sets on at least an annual basis. Furthermore, the Trustee expects to review this alongside the work it undertakes on re-establishing the buy and maintain credit portfolio, with the view to setting a climate-related target for this portfolio.

## Appendix A

# Technical Appendix



## Climate scenario modelling approach

### Strategic Asset Allocation (“SAA”) modelled

Fund	Strategic Asset Allocation
Capula Hedge Funds	3.0%
Partners Group Private Equity / Infrastructure	2.5%
Knighthood Distressed Private Debt	
JP Morgan Infrastructure Equity	10.0%
M&G Secured Finance	3.0%
Ares Secured Finance	4.5%
Mercer Multi-Asset Credit	7.5%
PGIM Ground Lease Property	9.0%
LGIM Buy and Maintain Credit	5.0%
LGIM Liability Driven Investments	53.0%
LGIM Sterling Liquidity Fund	2.5%

The allocation used in the scenario modelling is based on the SAA effective as at 30 September 2022, with adjustments made throughout the projection to reflect possible changes (e.g. de-risking) over time. Updates reflecting the new asset allocation targets will be picked up in future analysis and reported during subsequent reporting periods. This is a common approach where asset allocations have been updated during the period that the analysis was being undertaken for this year’s reporting. The Scheme’s funding position has also improved in recent months, meaning that the start position in this analysis is slightly out of date.

## Modelling assumptions

### Cumulative Impact on Asset Classes (relative to central return expectations):

Asset Class	Failed Transition			Rapid Transition			Orderly Transition		
	5 Years	10 Years	25 Years	5 Years	10 Years	25 Years	5 Years	10 Years	25 Years
Multi-Asset Credit	0%	-1%	-1%	-3%	-5%	-5%	0%	1%	1%
Listed Infrastructure	8%	8%	-13%	-14%	-17%	-22%	-8%	-13%	-21%
Private Equity	4%	-6%	-42%	-10%	-7%	-4%	-6%	-6%	-6%
UK Investment Grade Credit	0%	0%	0%	-2%	-3%	-2%	0%	0%	1%
Hedge Fund	0%	-1%	-3%	0%	1%	2%	0%	1%	1%
Global High Yield Credit	0%	-1%	0%	-6%	-7%	-7%	0%	2%	1%
UK Real Estate	1%	-7%	-31%	-6%	-4%	-1%	-2%	-1%	-1%
Cash	0%	-1%	-3%	0%	1%	2%	0%	1%	1%
Global Private Debt	0%	-1%	0%	-7%	-7%	-8%	0%	2%	0%
Global Senior Private Debt	0%	-1%	-2%	-2%	-2%	-2%	0%	1%	1%

Data as at 30 June 2022. Figures rounded to the nearest percent.

The asset classes most impacted under the scenarios modelled are Listed Infrastructure, Private Equity, Global High Yield Credit and UK Real Estate. However the impacts are time-dependent in many cases; for example the expected impact to UK Real Estate under the Failed Transition is +1% over the short term but -7% over the medium term and -31% in the long term as physical damages from climate change are expected to become more prevalent. Similarly, the impact on Private Equity under the Rapid Transition is expected to be more material in the short term (-10%), as asset re-pricing is expected to take place, whilst the impact over the medium (-7%) and long (-4%) is expected to be less significant.

We also note that at the sector level, the impact of the Failed Transition on Fossil Fuel based Utilities is expected to be more significant over the short to medium term (+18%) than the longer term (+13%) as the earlier benefits from a lack of re-pricing under this scenario begin to be partly offset by physical damages over the longer term.

## Climate scenario narratives

### Investment and Funding Climate Scenario Analysis Assumptions:

	Rapid Transition	Orderly Transition	Failed Transition
<b>Summary</b>	Sudden divestments in 2025 to align portfolios to the Paris Agreement goals have disruptive effects on financial markets with sudden repricing followed by stranded assets and a sentiment shock.	Political and social organizations act quickly and predictably to implement the recommendations of the Paris Agreement to limit global warming to below 2°C above pre-industrial levels by 2100.	The world fails to meet the Paris Agreement goals and global warming reaches 4.3°C above pre-industrial levels by 2100. Physical climate impacts cause large reductions in economic productivity and increasing impacts from extreme weather events.
<b>Cumulative emissions to 2100</b>	416 GtCO <sub>2</sub> e	810 GtCO <sub>2</sub> e	5,127 GtCO <sub>2</sub> e



	Rapid Transition	Orderly Transition	Failed Transition
<b>Key policy and technology assumptions</b>	An ambitious policy regime is pursued to encourage greater decarbonisation of the electricity sector and to reduce emissions across all sectors of the economy. Higher carbon prices, larger investment in energy efficiency and faster phase out of coal-fired power generation under a 'Rapid' transition.		Existing policy regimes are continued with the same level of ambition.
<b>Financial climate modelling</b>	Pricing in of transition and physical risks of the coming 40 years occurs within one year in 2025. As a result of this aggressive market correction, a confidence shock to the financial system takes place in the same year.	Pricing in of transition and physical risks until 2050 takes place over the first 4 years.	Physical risks are priced in two different periods: 2026-2030 (risks of first 40 years) and 2036-2040 (risks of 40-80 years).
<b>Physical risk impact on GDP</b>	Physical risks are regionally differentiated, consider variation in expected temperature increase per region and increase dramatically with rising average global temperature. Physical risks are built up from: Gradual physical impacts associated with rising temperature (agricultural, labour, and industrial productivity losses) Economic impacts from climate-related extreme weather events Current modelling does not capture environmental tipping points or knock-on effects (e.g., migration and conflict).		
<b>Physical risk impact on inflation</b>	Gradual physical impact (supply shocks) on inflation included through damages to agriculture and change in food prices. Total impact on a Global CPI Index is +2% in 2100.	No explicit modelling of physical risk impact on inflation (supply-side shocks). Impact on inflation follows historical relationship between GDP and CPI.	Severe gradual physical impact (supply shocks) on inflation included through damages to agriculture and change in food prices. Total impact on a Global CPI Index is +15% in 2100.

Source: Mercer and Ortec. Climate scenarios as at 30 June 2022.

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

## Limitations associated with climate modelling

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

1. The further into the future you go, the less reliable any quantitative modelling will be.
2. There is a reasonable likelihood that physical impacts are grossly underestimated. Feedback loops or 'tipping points', like permafrost melting, are challenging to model particularly around the timing of such an event and the speed at which it could accelerate.
3. Financial stability and insurance 'breakdown' is not modelled. A systemic failure may be caused by either an 'uninsurable' 4°C physical environment, or due to the scale of mitigation and adaption required to avoid material warming of the planet.
4. Most adaptation costs and social factors are not priced into the models. These include population health and climate-related migration.
5. New and emerging risks, such as the impact of climate change on biodiversity loss, and vice versa, is expected to be integrated into climate scenario modelling over time once the supporting science and impact on econometrics and finance is better understood.

## Climate metric analysis approach

### Data sources

The Trustee considered the use of proxy metric data for hedge funds, private equity, private debt, property and secured finance (only for the mandate managed by Ares), however the characteristics of the proxy funds was deemed to be too different from the invested assets to make informed investment and/or engagement decisions with the information. For now, no data on these asset classes has been presented. These assets represent c. 26% of the total actual asset allocation as at 31 December 2022.

### Scope of emissions

Only Scope 1 and 2 emissions data has been included in this report except where noted. This means that for some companies the assessment of their carbon footprint could be considered to be understated.

### Data coverage

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

- Some publically listed companies are not publishing climate-related data or are providing poor quality data. This is relevant to public equity and corporate bonds. Obtaining data for emerging market equity and debt can also be challenging due to general disclosure and transparency challenges.
- Many private companies do not currently produce climate-related data and coverage for private market assets, such as those funded by private equity and private debt, will be low, or zero for mature funds.
- Sovereigns, or governments, may not publish climate-related data in the public domain. This is a particular challenge for emerging market debt. For UK government debt, data is available but there is a delay in the data being published.
- Short-term instruments, such as some assets underlying secured finance portfolios, have limited data available due to the short-term nature of the individual assets.
- For the long dated property portfolio, the occupiers of the buildings in the portfolio have full operational control and there are no Scope 1 or 2 emissions associated with the investments. The asset managers are looking to improve the collection of Scope 3 emissions data – this includes occupier activities where they have direct utility supplier contracts.

In this report, the Trustee has reported the climate metrics provided by each of the investment managers.

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



## Asset class assumptions

### Liability Driven Investment (LDI)

The following assumptions have been made in the calculation of the climate-related metrics for the LDI mandate (the liability hedging programme):

- Government bond data uses 2019 emissions;
- Emissions associated with imports (energy and non-energy) have been excluded;
- Figures cannot sensibly be aggregated with emissions data for non-gilt assets due to risk of double counting as UK emissions include corporate and household emissions;
- The Scheme's asset position at 31 December 2022;
- The metrics cover the full economic exposure to UK gilts which will be from the physical gilt holdings, including those financed via repo transactions;
- Gilts posted as collateral by the Scheme are included in the gilt valuations and gilts received as collateral are excluded;
- Interest rate swaps, inflation swaps, futures, cash and money market fund holdings have all been included.

Category	Exposure including unfunded derivative positions (£m)	Total Carbon Emissions (tCO <sub>2</sub> e)
<b>Gilts and index-linked gilts</b>	614	53,255
<b>Gilts and index-linked gilts funding</b>	-369	-
<b>Swap MTM and other cash</b>	0	-
<b>SLF</b>	184	2,062

Source: LGIM, UK Government, DMO and IMF. Valuations sourced by LGIM from portfolio management systems and may differ from official valuation sources.

## **Important notices from data providers**

### **Mercer**

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

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### **Ortec Finance**

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

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