



SIEMENS BENEFITS SCHEME

# Taskforce on Climate-Related Financial Disclosures (TCFD) Statement – Year Ended 30 September 2024

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# Member Summary

The aim of this TCFD Statement is to set out how the Scheme manages risks and opportunities related to climate change, as well as reporting on the climate impact of the Scheme's investment portfolio. Following this summary is a more detailed Statement to comply with required regulations.

This Statement covers the following four areas of the Climate Change Governance framework:

- **Governance:** the arrangements in place around climate-related risks and opportunities.
- **Strategy:** the actual and potential impacts of climate-related risks and opportunities.
- **Risk Management:** how the Trustee identifies, assesses, and manages climate-related risks.
- **Metrics and Targets:** the metrics and targets used to assess and manage climate-related risks and opportunities.

This Statement relates to the Defined Benefit ("DB") section of the Scheme only and covers the period from 1 October 2023 to 30 September 2024 (as the Trustee has conducted further work on this topic in the quarter to 31 December 2024, high-level information on this has also been included in this Statement for completeness, though more detail will be included in the next TCFD Statement).

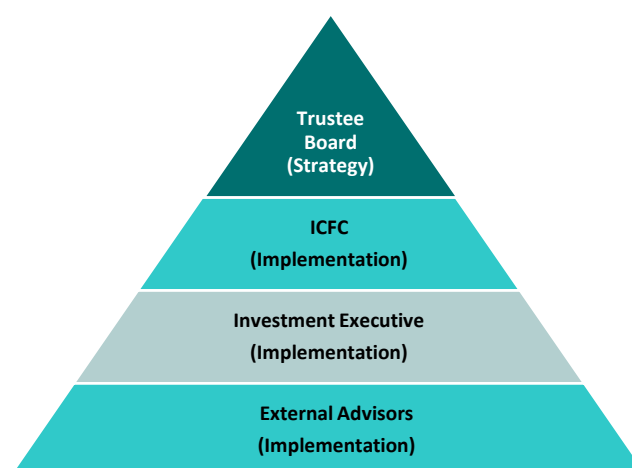
The Defined Contribution ("DC") assets of the Scheme were transferred to a master trust with Standard Life with effect from 1 October 2023. Therefore, the DC section has been excluded from this Statement as the Trustee is no longer responsible for these assets.

The Trustee has a keen focus on investing responsibly and supports global action against climate change. Whilst this Statement is the second regulatory TCFD Statement, the Trustee chose to be an early adopter of the principles laid out by the regulations as based on the recommendations of the TCFD and has produced voluntary disclosure reports under this framework in previous years.

Below is a short summary of the key takeaways from the Statement:

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

The Trustee retains ultimate responsibility for the management of climate-related risks and opportunities, with day-to-day oversight delegated to the Investment, Covenant and Funding Committee ("ICFC"). The Trustee receives regular training relating to responsible investment, with a focus on issues related to climate change. The Trustee also requires the Scheme's appointed fund managers to be cognisant of climate-related risks and opportunities. The Trustee has tasked its Investment Executive, as well as its appointed Investment Advisor, Redington, to engage with its appointed investment managers on climate change on its behalf, bringing any relevant updates to the Trustee's attention. The Trustee's other appointed advisors are responsible for monitoring climate-related risks in relation to the Scheme's liabilities and its sponsoring company. Below is a chart illustrating the delegation of authority, starting with the Trustee, who delegates to the ICFC, who in turn delegates to the Investment Executive, who liaises with the Scheme's external advisors.



## Strategy: The actual and potential impacts of climate-related risks and opportunities on the Scheme's strategy

The Trustee has engaged with Redington, the Scheme actuary, Aon, and the Scheme covenant advisor, Cardano, to understand how various climate scenarios will affect the Scheme's investment and funding strategy over short-, medium- and long-term time periods. The Trustee has assessed three core components (outlined below) under three different scenarios, which outline differing future paths of carbon emissions, a summary of which is shown below:

1. Impact of climate scenarios on the Scheme's assets (i.e., investment strategy);
2. Impact of climate scenarios on the Scheme's liabilities (i.e., longevity and interest rates);
3. Impact of climate scenarios on the strength of the Scheme's sponsoring company.



The table above identifies the level of risk associated with each climate scenario over the near-, medium- and long-term. The risk classification details the risk to the covenant across the Group's entire value chain. Please see pages 13 and 14 of this statement for further detail.

Following a review of this analysis, the Trustee is comfortable that the Scheme's investment and funding strategy remains resilient to various climate scenarios, and thus there are no immediate calls-to-action. However, the Trustee also acknowledges the limitations of the current climate scenario analysis, which likely understates climate risks. Therefore, the Trustee does not rely solely on this analysis for strategic decision-making and continues to work with its investment advisors to explore developments and update its approach as needed. The Trustee also continues to work to enhance the Scheme's asset portfolio from a climate perspective. For example, over the Scheme year, the Trustee agreed to update the ESG exclusions applied to the LGIM Buy and Maintain ('B&M') Portfolio to align with those of the LGIM Paris-Aligned Equities.

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

The Trustee has incorporated climate-related risk into the Scheme's wider risk management framework and added it to the Scheme's risk log. The Trustee believes that engagement with its investment managers is one of the main ways it can manage climate-related risks and opportunities. For example, the Trustee agreed to update the exclusions for the B&M Portfolio to align with those of the LGIM Paris aligned equities, with the proposed trading, which was completed after the Scheme's year-end, improving the wider climate metrics of the B&M portfolio.

The Trustee receives annual climate-related reporting from Redington, which provides relevant information to identify and assess climate-related risk on a fund-by-fund basis, as well as providing an overview of the Scheme's exposure to climate risk at a portfolio level. The Trustee considers this information in order to better manage climate risk on an ongoing basis and also takes it into account when making decisions on investment strategy, manager selection, and prioritising investment manager engagement activities. The Trustee monitors developments in the Sponsor's exposure to climate change, in addition to relevant climate-related metrics, through its ongoing covenant monitoring prepared by its covenant advisor.

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

On an annual basis, the Trustee monitors and reports the Scheme's total greenhouse gas emissions<sup>1</sup>, carbon footprint<sup>2</sup>, data quality (as assessed by the Partnership for Carbon Accounting Financials), and the output of the portfolio alignment Science Based Targets initiative ("SBTi")<sup>3</sup> metric. These metrics are reported on as at the Scheme's year-end (30 September 2024), within this Statement. The Trustee uses these to identify the climate-related risks and opportunities which are relevant to the Scheme. Follow-up actions might include, for example, engaging with fund managers who have material carbon intensity levels or with other industry participants, exploring low-carbon alternative investment options, and updating investment guidelines for managers where the Trustee has discretion to make such changes.

The Trustee has also set two targets in relation to the metrics which it monitors:

1. **Net Zero Target (monitoring target)** – the Trustee monitors the Scheme's carbon footprint along its journey to achieve net zero carbon emissions by 2050, with an interim target to decrease carbon footprint by 50% by 2030 (Scope 1 and 2 emissions relative to 2021 levels). As at 30 September 2024, the Scheme is ahead of track vs. its net zero target, achieving a 43% reduction in emissions versus a required reduction of 16% to remain on target.
2. **Science-Based Target (actionable target)** – to help the Scheme meet its net zero goals, the Trustee has agreed a target which it can more readily take action against on an ongoing basis. In

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<sup>1</sup> Estimated Total Mandate Carbon Emissions (tons) as defined in the [Glossary of Terms](#).

<sup>2</sup> Total Carbon Footprint (tCO<sub>2</sub>e / EVIC £m) as defined in the [Glossary of Terms](#).

<sup>3</sup> Science Based Total Mandate Carbon Emissions as defined in the [Glossary of Terms](#).

particular, the Trustee has agreed that by 2030, 70% of the Scheme's portfolio financed emissions should have science-based net zero targets (as currently measured by the SBTi metric). The Trustee will monitor progress towards this and engage with managers that are not meeting requirements. As at 30 September 2024, the Scheme is behind its 70% target, with 31% of portfolio financed emissions with an SBTi approved target. Given the target date of 2030, this is not currently noted to be a significant concern. The Trustee acknowledges the SBTi scores for some of the Scheme's managers have dropped over the course of the Scheme year and will prioritise engagement with these managers to drive improvements over 2025.

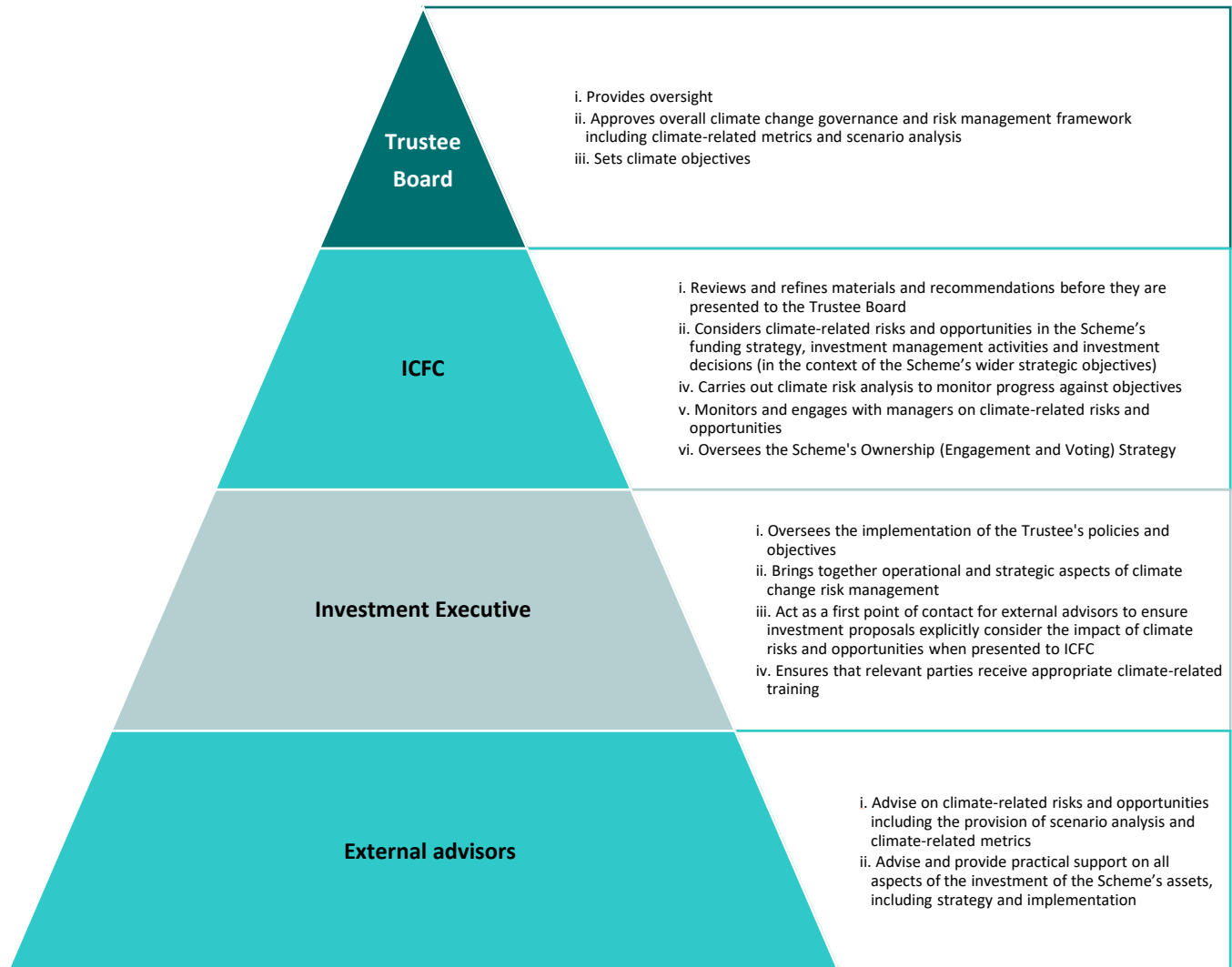
The Scheme's investable assets are made up of return-seeking assets (e.g. equities, corporate credit, property), Liability-Driven Investments ("LDI"), buy-in contracts and Orelle<sup>4</sup>. The latter three, which make up c.77% of the portfolio, have been excluded from the analysis on the basis the Trustee has limited control of the emissions of these assets. However, the Trustee acknowledges they do have control over the extent to which assets are allocated between the return-seeking assets and LDI and will continue to carefully consider this asset allocation over 2025.

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<sup>4</sup> Orelle is a Scottish Limited Partnership asset-backed funding arrangement (the Scheme's SPV structure).

# Governance

In all investment matters, it is the Trustee that is ultimately responsible for identifying, assessing, and monitoring climate-related risks and opportunities which are relevant to the Scheme. However, there is a committee of the Board, the Investment, Covenant and Funding Committee (“ICFC”) that has been delegated the day-to-day responsibility. In keeping with this governance structure, this Statement has been reviewed by the ICFC and approved by the Trustee Board. The roles and responsibilities of relevant parties are set out in the diagram below.



The Trustee takes steps to regularly review the competence of each of its external advisors in relation to identifying and assessing climate change risks and opportunities. For example, integration of ESG (including climate change) and stewardship are included in Redington's objectives, which are assessed semi-annually. The Trustee retains advisors for actuary and covenant advisory services and is confident in the advisors' competencies and capabilities to advise on climate- and sustainability-related risks and opportunities. When these services are periodically, in accordance with the Scheme's governance framework, put out to tender via a Request for Proposal, potential advisors are specifically assessed on their experience, expertise, personnel and resources dedicated to the topics of climate and sustainability. Additionally, the Trustee receives regular business updates from the advisors to confirm they remain committed to being subject-matter experts.



The Trustee also requires its appointed investment managers to be cognisant of climate-related risks and opportunities within their investment processes as applied to the assets of the Scheme. The Trustee will continue to increase the level of engagement with its investment managers to ensure that adequate steps are being taken in this respect. The Trustee also relies on the manager research and manager monitoring capabilities of Redington to effectively assess climate-related risks and opportunities, both within individual manager mandates and across the overall investment strategies.

Active engagement with the Scheme's appointed investment managers, specifically relating to climate-related risks and opportunities, is conducted in part by Redington and the Investment Executive on an ongoing basis, and also by the Trustee during any meetings to which investment managers are invited (the Trustee typically meets 1-2 of its managers per annum). Throughout this engagement process, investment managers are assessed on how climate-related risks and opportunities have been incorporated into the investment process within applicable guidelines and restrictions.

Active engagement with underlying companies in which the Scheme is invested, specifically relating to climate-related risks and opportunities, is delegated to the Scheme's investment managers. Key takeaways from this day-to-day monitoring are reported back to the Trustee by Redington on an ad-hoc basis, during quarterly Trustee meetings and through the annual Implementation Statement process.

The Trustee also receives annual climate reporting from Redington which contains information on the relevant metrics and targets selected for monitoring as outlined in the "Metrics and Targets" section.

The Statement of Investment Principles ("SIP") commits the Trustee to periodic training regarding responsible investment. As such, the Trustee and ICFC undertake regular training around ESG topics to ensure its understanding and knowledge is up to date with regulatory requirements and evolving market developments and practice. The Trustee also sets aside time to discuss climate risk throughout the year, as part of the meeting cycle. In September 2024, the Trustee, through its Investment Advisor, considered what further steps they could take to enhance the Scheme's approach to stewardship. The Trustee decided that further action wasn't necessary at this time, but it continues to assess opportunities to enhance its approach and processes.

Full details of the Trustee's climate related positions and its Stewardship policy can be found in its 'Responsible Investment Policy' in section 8 of the Scheme's SIP.

## Strategy

The Trustee considers climate-related risks and opportunities and the potential implications on the Scheme's investment and funding strategy over the short-, medium-, and long-term. To do this, it receives scenario analysis relating to the Scheme's assets, liabilities, and covenant. This helps to ensure that climate-related factors are considered throughout the Trustee's funding and risk management process, from strategic asset allocation to manager selection and portfolio monitoring, as well as considering potential risks to the covenant of the Scheme.

The Trustee is conscious that, given the diversified nature of the Scheme's investment portfolio, the source of climate-related risks and opportunities are likely to be varied. The main risks and opportunities to the Scheme are transition risk, physical risk, and technology opportunities, which are described below. It is important to note that these are not the only risks/opportunities that the Scheme will face and there are many others that are either unknown, or not yet considered in climate analysis.



- **Transition Risks:** i.e., the risk of re-pricing which would occur as part of the move to a low-carbon economy.
- **Physical Risks:** i.e., those that arise from both gradual changes in climatic conditions and extreme weather events.
- **Technology opportunities:** i.e., profitable opportunities that arise as a result of a transition to a low carbon economy.

The DWP regulations require the Trustee to consider climate-related risks and opportunities, and the potential impact of these on the Scheme's funding strategy over the short-, medium-, and long-term. For example:

Term	Risks and Opportunities
Short (3 years)	<ul style="list-style-type: none"> <li>• This relatively short period will allow the Trustee to evaluate the short-term risks faced by the Scheme from sudden climate-related behavioural changes from individuals, businesses, and governments in response to climate change.</li> <li>• Shorter-term climate risk is likely to be manifested 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).</li> <li>• Shorter-term transition risk is likely to be most applicable to equity and corporate credit assets given the Scheme's investment in these assets is mainly in issuers from developed markets where climate-related policy and societal behavioural changes are expected to occur more quickly and on a wider scale.</li> </ul>
Medium (6 years)	<ul style="list-style-type: none"> <li>• In the medium term, transition risk is likely to be the main type of climate risk to consider, although physical risk might also impact Scheme assets and liabilities.</li> <li>• From a transition risk perspective, this might include changes in consumer spending habits following changes in technology, such as the uptake in electric vehicles or a reduction in overseas travel.</li> <li>• The increasing frequency and severity of extreme weather events means physical risk is likely to be more prevalent than in the short-term. This is likely to have more of an impact on the Scheme's investments in real assets, such as infrastructure and property.</li> </ul>
Long (10 years+)	<ul style="list-style-type: none"> <li>• Mix of physical and transition risk, with an increasing intensity in physical risk associated with climate change.</li> <li>• Transition risk due to the global economy's transition to a decarbonised economy.</li> <li>• 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.</li> <li>• Most likely to impact the Scheme's real assets, such as infrastructure and property, although the Trustee notes that these are relatively small holdings in the context of the overall investment strategy.</li> </ul>

The Trustee also strives to capture opportunities over each time horizon that will contribute to limiting the adverse impacts of climate change, including technology opportunities, while also contributing to enhanced member outcomes.

## Strategic Changes

This analysis is considered alongside other factors when the Trustee makes strategic asset allocation decisions. This helps to determine whether investment strategy changes are likely to have a positive or detrimental impact on the Scheme's climate risk profiles.

The Trustee has considered changes to the investment strategy to limit exposure to climate-related risks and to take advantage of climate-related opportunities. In order to do this, the Trustee has considered the 'levers' it could pull, which include the following:

- **Making strategic changes.** The Trustee made an allocation to a Paris-Aligned passive equity fund in May 2023. The Trustee believes investing in opportunities such as this can be positive from a traditional risk/return perspective, having made a significant return on the investment over the year, and is also consistent with its fiduciary responsibility.
- **Making changes within mandates.** In March 2024, the Trustee agreed to update the ESG exclusions applied to the LGIM Buy and Maintain Portfolio to align with those of the LGIM Paris-aligned equities. Trading was completed after Scheme year-end and improved the wider climate metrics of the portfolio without negatively impacting the return or credit rating.
- **Actively engaging with managers.** The Trustee regularly meets with its managers to engage with them on their ESG activities, for example, pressing CQS, Hermes and PIMCO on their ESG efforts in meetings over the year. Following a meeting with LGIM in September 2024, the Trustee engaged with the manager on them falling behind the temperature alignment target for the Buy and Maintain Portfolio. LGIM took the necessary action to get the portfolio back on track after the Scheme year-end. Engagement was a key priority for the Trustee this year and will continue to be so in 2025.

## Climate scenarios: Overview of Methodology

The Trustee, on an ongoing basis, assesses the impact of the identified climate-related risks and opportunities on the Scheme's investment strategy and funding strategy. In order to assess the impact on the Scheme's assets, the Trustee undertakes scenario analysis consistent with the Network for Greening the Financial System ("NGFS") scenarios. The stresses of this analysis are designed to illustrate what the impact on the value of the Scheme's assets and liabilities would be in the following scenarios:

- **2°C Disorderly Transition:** Assumes annual emissions do not decrease until 2030. Due to this delay, strong and abrupt policies are needed to limit warming to below 2°C from this point. For example, carbon prices would have to increase abruptly after a period of delay. CO<sub>2</sub> removal is limited.
- **2°C Orderly Transition:** Climate policies are introduced early and become gradually more stringent, giving a 67% chance of limiting global warming to below 2°C. Both physical and transition risks are relatively subdued.
- **Hot House World:** Assumes that climate policies are implemented in some jurisdictions, but global efforts are insufficient to halt significant global warming. The scenarios result in severe physical risk including irreversible impacts like sea-level rise.

In order to assess the impact of each scenario on the Scheme's investment and funding strategy, the Trustee has analysed the impact on the Scheme's assets, liabilities, and covenant, the results of which are laid out below. Further details on the scenarios used can be found in Appendix A. Please see Appendix C for further detail on the longevity analysis conducted by Aon, and Appendix D for further detail on scenario analysis conducted by Cardano.

The Trustee acknowledges the growing scrutiny of current climate scenario analysis models, building on concerns identified in the previous year's Statement that current methodologies may not fully account for the climate risks the Scheme could face. Recent scrutiny has revealed that current methodologies may not accurately reflect the threat climate change poses to the planet and society, such as overlooking climate tipping points and underestimating the likely implied temperature rise and physical impacts of climate change. Consequently, the analysis currently has limited reliability and usefulness as a decision-making tool. As such, the Trustee does not rely solely on this analysis to inform its strategic decision-making. Nonetheless, the scenario analysis does help to highlight that climate change risks do exist, and the Trustee therefore believes that appropriate risk management steps should be taken to address and limit their potential impacts. This is covered in more detail in the Risk Management section.

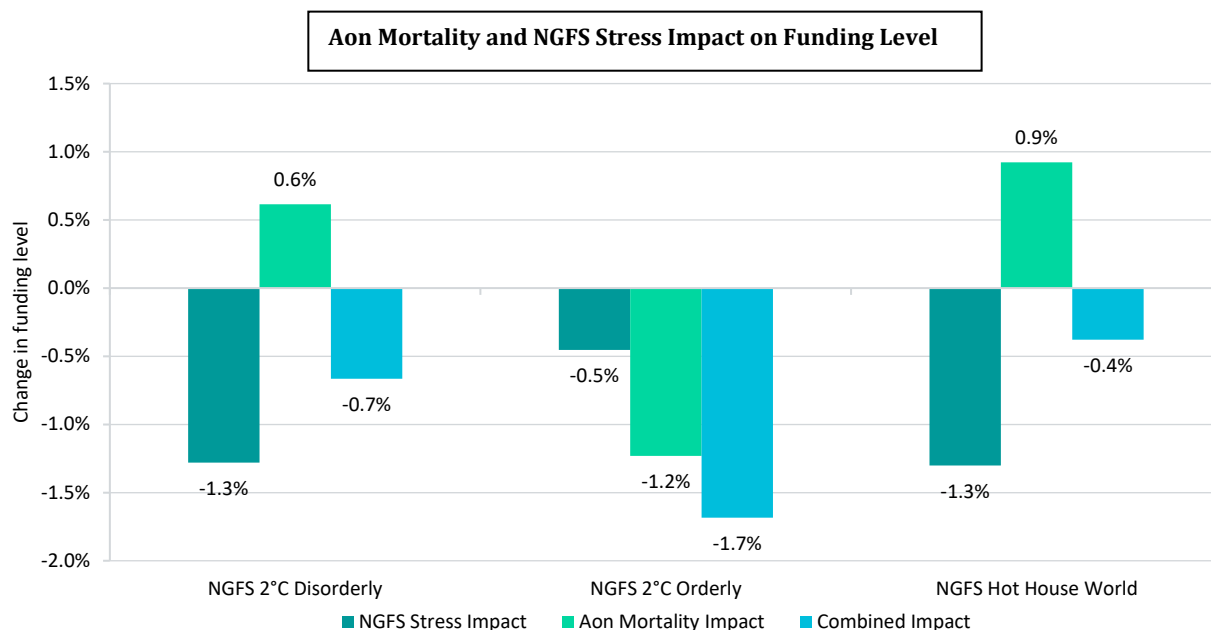
Given the Trustee's desire to remain aligned with emerging good practice, the Trustee is actively discussing this topic with its Investment Advisor. The Trustee will continue to remain informed on developments and explore opportunities to adapt its approach to scenario analysis and climate modelling as methodologies evolve. As approaches are still developing, the methodology used for the analysis in this Statement has not changed significantly versus last year's Statement, although it has been updated this year to align with phase III of the NGFS stresses. Further detail on the changes to methodology can be found in Appendix A.

### Scenario analysis results: Impact on Assets and Liabilities

The chart below shows the impact of the 3 NGFS scenarios outlined above on the Scheme's Technical Provisions funding level, estimated as at 30 September 2024. The overall impact is comprised of:

- "NGFS Stress Impact" – impact to the Scheme's investment strategy (including assets and liabilities), modelled by Redington.
- "Mortality Impact" – mortality impact modelled by the Scheme actuary, Aon.

With regards to the mortality impact, each scenario is compared to a base scenario which represents Aon's typical best estimate of how mortality is projected to change over time. This embeds the assumption of future longevity changes in line with the most recently available 'Continuous Mortality Investigations' (CMI) tables with a long-term rate of mortality improvement of 1.5% p.a. The three scenarios considered by Aon are in line with the NGFS scenarios used by Redington and are: (1) 2°C Disorderly Transition, (2) 2°C Orderly Transition and (3) Hot House World Transition. The table below depicts the expected funding level impact under each of the three climate scenarios, expressed as the percentage point difference between the Scheme's funding level and the stressed funding level. The stressed funding level is computed by combining the climate stress from each NGFS scenario on both assets and liabilities, with the liability stress due to longevity, based on the actuary's analysis of ultimate mortality impacts. The mortality impact on the liabilities modelled by Aon has also been adjusted to only apply to the uninsured liabilities not covered by the Scheme's insurance arrangements (i.e. buy-ins).



Source: Redington (September 2024), Aon (September 2023<sup>5</sup>). Please note, the figures are based on the impact on male life expectancy to standardise the population and allow for a fair comparison over time, though each scenario impacts females to the same extent. The figures are appropriate for the overall profile of the Scheme and the discount rate being used on the Technical Provisions basis (Gilts + 0.25% p.a.).

#### Key takeaways from each scenario

- Disorderly transition** – the Scheme’s funding level is expected to worsen under this scenario, with green policy measures creating considerable economic disruption, hampering economic growth and hurting corporate profitability. Improvements to mortality are also expected over and above the currently assumed base case scenario.
- Orderly transition** – this scenario has the most severe impact on the Scheme’s funding level predominantly due to an expected improvement in life expectancy of members, supported by a brighter sustainable outlook and the positive spill-over effects from green policy adoption. The asset portfolio also falls by the lowest amount in this scenario out of the three modelled as an orderly transition limits the physical risk of the Hot House world scenario and as it is done over an orderly time period it reduces the transition (i.e. repricing) risk compared to the Disorderly scenario.
- Hot House World** – this scenario has the least negative impact on the Scheme’s funding level due to a large expected deterioration in the life expectancy of members, caused by disruption to health and social care services, and damage to related infrastructure, due to extreme weather (potentially coinciding with increased demand). The investment strategy is also negatively affected, to the same degree as the 2°C Disorderly scenario, reflecting the investment strategy’s exposure to both physical and transition risk.

<sup>5</sup> Aon noted the results of the 2023 analysis remain unchanged for 2024.

**Overall key takeaway:** Having reviewed the results provided, the Trustee notes that under each of the three scenarios, the combined impact on the investment strategy and liabilities (i.e., longevity/mortality impact) is not likely to lead to a significant deterioration of the Scheme’s funding position. However, the Trustee acknowledges that improvements in the funding level across all three scenarios are due to increases in mortality rates, which is not in the best interest of the Scheme’s members. Therefore, the Trustee considers the Orderly transition scenario, which presents the lowest climate impact, the best overall outcome. The Trustee also periodically assesses available opportunities to reduce the Scheme’s longevity risk exposure through risk-transfer transactions. Finally, the Trustee acknowledges the limitations of this analysis and notes it is highly sensitive to the assumptions used and expects the useability of the output to improve over time as best practice evolves.

## Scenario Analysis Results: Impact on Covenant

The table below outlines the impact of the three NGFS scenarios set out above on Siemens AG (“Siemens” or the “Group”), over the near-, medium- and long-term. This analysis has been provided by Cardano and has been conducted on the parent company of the Scheme’s UK sponsoring company, given the integrated nature of the Group and covenant (and noting the Scheme has material covenant support from the Group). The analysis conducted by Cardano views the risk to the covenant across the Group’s entire value chain, which can be broken down into five transmission channels:

- Macro-economic conditions;
- Supply chain;
- Operations;
- Competition;
- End-market.

The impact arising through these channels is then combined into an overall assessment of potential risk, either “Low”, “Medium”, or “Higher”. Further detail on Cardano’s analysis can be found in Appendix D.

### 2024 Assessment – climate-related covenant risk over time

Metric		NGFS 2.0°C Disorderly	NGFS 2.0°C Orderly	NGFS Hot House World
Impact of climate scenarios on the strength of the Scheme’s sponsoring company	Near-term < 3 years	Lower Risk	Medium Risk	Lower Risk
	Mid-term 3 – 13 years	Higher Risk	Higher Risk	Medium Risk
	Long-term 13 years +	Medium Risk	Medium Risk	Higher Risk

In addition to the identified risks, the Trustee is aware that Siemens may also benefit from opportunities to provide customers with products and solutions that better enable them to reduce greenhouse gas emissions, meet sustainability targets and limit environmental impacts. Additional business opportunities identified by Siemens include solutions for the electrification of transport for a low-carbon system, increasing development of certain renewable energies, and the development of low-carbon industrial clusters in regions with stringent regulations. These opportunities could at least partly offset identified risks although Cardano has not considered climate opportunities in the same level of detail as climate risks given the focus was on understanding the resilience of the funding strategy in the face of climate change (and therefore the focus remained on potential downside aspects).

In this analysis, the near term is the period from the time of analysis until 2028. In this timeframe, only limited changes to the status quo is expected under the Disorderly and Hot House World scenarios. The risks associated with an Orderly Transition appear higher due to the impact of new regulations aimed at significantly reducing carbon emissions. These regulations could have a particular effect on Siemens and its relatively carbon intensive supply chains and operations, in particular its Scope 3 (as defined in the 'Metrics & Targets' section of this Statement) emissions, which are harder for Siemens to control. Due to the nature of the other two scenarios, the risks associated with regulation changes are lower, as evidenced by the comparatively reduced risk to the Sponsor. The risk of regulation change also accounts for the discrepancy in risk classification observed in the mid-term, as regulation change will introduce a risk to the Scheme in both the Orderly and Disorderly Transition scenarios, but not in the Hot House World scenario. The Hot House World scenario is assumed to begin to show higher levels of physical risk and associated financial impacts over the medium term; however, the physical risk models available suggest the physical risk remains largely in line with the Orderly and Disorderly scenarios and therefore the overall risk to the Group is lower (as there is no concurrent transition risk in the Hot House World scenario). Over the longer-term, the physical risks faced by suppliers in key operating locations are expected to be more pronounced – particularly with respect to extreme weather events, which could result in supply chain and operational disruptions.

**Key takeaway:** Having reviewed the results provided, the Trustee is satisfied that the Group is well placed to address the anticipated risks and take advantage of the opportunities arising from climate change. Therefore, the Trustee sees no reason at present to alter the Scheme's funding strategy because of this covenant analysis. It will continue to review the approach of the Group, performing formal analysis triennially or sooner following meaningful changes that could affect the covenant strength or the Scheme's funding strategy.

## Summary

Based on the findings of the scenario analysis, the Trustee is comfortable that the investment and funding strategy is sufficiently resilient to the climate risks it may face. However, the Trustee acknowledges the limitations of the current climate scenario analysis, which likely underestimates climate risks. Therefore, the Trustee will continue to not solely rely on the conclusions of the scenario analysis for strategic decision-making.

# Risk Management

## Climate Risk Monitoring

The Investment Advisor considers the current industry sentiment regarding the extent to which climate risk is being priced in the market, incorporating it into their annual scenario analysis for the Trustee.

Climate-related risks and opportunities are considered in terms of the physical risks to assets that are expected to result from climate change, and in terms of the transition risks associated with the global shift to a low-carbon economy. The Trustee has incorporated climate-related risk into the Scheme's wider risk management framework and added it to the Scheme's risk log.

The Trustee has also integrated climate change into the Scheme's wider risk management and receives additional climate-related reporting from Redington on an annual basis, providing information both on a

fund-by-fund level and also at the portfolio level. This reporting contains relevant climate metrics as set out under the Department for Work and Pensions ('DWP') adoption of the recommendations of the TCFD, and includes total absolute carbon emissions, carbon footprint, the Trustee's selected non-emissions based metric (PCAF Data Quality Breakdown), and output of the portfolio alignment SBTi metric. The Trustee uses this reporting to inform future investment decisions as well as engage with its investment managers on climate-related matters. The Trustee also receives detailed climate scenario analysis reports from the Scheme actuary, Aon, and the covenant advisor, Cardano, detailing how the Scheme's liabilities and covenant would be impacted by various climate scenarios (see Strategy section for further details).

Redington advises on, and provides objective assessments of, differing approaches to responsible investment to help the Trustee decide on a responsible investment strategy and adopt appropriate responsible investment objectives for the Scheme. The responsibilities of Redington are set out in more detail in Section 1: Governance. The Trustee also requires the appointed investment managers to be cognisant of climate-related risks and opportunities within their investment processes as applied to the assets of the Scheme.

The Trustee also aims to take advantage of climate-related opportunities where this is expected to improve the risk/return profile of the Scheme. This will highlight asset classes that may perform well in different climate-related scenarios. At the level of individual investments, the Trustee expects the appointed investment managers to consider climate-related opportunities when making investments and engage with portfolio companies in order to encourage them to take advantage of relevant opportunities.

The Trustee regularly monitors the possible impact of climate risk on the employer covenant, taking into account the latest data and targets of the sponsor as well as the wider regulatory environment to ensure the Trustee's strategy and approach remain appropriate.

## Engagement and Voting

When selecting a new investment manager, ESG integration, as well as stewardship and engagement, are factored into the Trustee's decision-making process to the appropriate level for the specific asset class in question. The Trustee believes that engagement and voting are core components of sound risk management. Engagement is aimed at ensuring companies manage the physical and transitional risks that climate change poses. The Trustee's policy is to delegate responsibility for engagement with investee companies to its investment managers, which includes the exercising of rights (including voting rights) attached to investments made by the investment managers. The Trustee encourages its managers to engage with investee companies and promote adherence to best practice in corporate governance. The Trustee's ability to influence investment managers' stewardship activities will depend on the nature of the investments held. For example, for the Scheme's assets invested in pooled funds – where the Trustee holds units in a fund rather than having any direct ownership rights – the Trustee has limited scope to directly influence these managers' stewardship activities. Despite this, the Trustee recognises that practicing its own good stewardship will help improve managers' stewardship over time. This was an area of focus for the Trustee in 2024 and will continue to be so in 2025.

Being cognisant of the DWP's updated guidance emphasising the need for asset owners to be more "active" in their approach to stewardship, the Trustee adhered to its updated Stewardship Policy over the Scheme year which was set in May 2023. See the SIP for the Stewardship Policy.

As per the Policy, the Trustee believes that the monitoring of stewardship activities and engagement with the Scheme's managers is one of the main ways in which the Trustee can manage climate-related risks and opportunities. For example, in October 2023, the Trustee met with LGIM and it was discussed how the Buy and Maintain ("B&M") Portfolio was not on track to meet its temperature alignment objective to manage the portfolio along a pathway to achieve a temperature of 2.0°C or lower from 31 December



2025. Following this, the Trustee met with LGIM again in March and September 2024 where the lack of progress towards the target was once again discussed. These discussions led to LGIM taking remedial action to make minor trades to realign the portfolio to be on track against the temperature alignment target. Further progress regarding this target will be reported in the next iteration of this Statement.

It was also noted over the year that all ESG exclusions currently applied to the LGIM Paris-aligned equities were not being applied to the LGIM B&M portfolio, meaning the Scheme could be excluding a company on the basis of ESG considerations in the equity allocation, but then finance the company via debt in the B&M portfolio. As such, the Trustee agreed to update the exclusions for the B&M Portfolio to align with those of the LGIM Paris aligned equities, with the proposed trading improving the wider climate metrics of the portfolio without negatively impacting the return or credit rating. The Trustee views this as a pragmatic step to continue to progress towards their ESG-related goals and further detail on the impact of these trades will be included in the next iteration of this Statement as trading was completed post Scheme year end.

The Trustee also continued to monitor and review its other investments, including meeting with the Scheme's Absolute Return Bond Managers in May 2024 where the Trustee was comforted by the improvement PIMCO showed regarding its ESG integration process, having previously identified the manager as a laggard in this area. Further details on the Trustee's stewardship and engagement activity over the year is detailed in this year's Implementation Statement.

# Metrics and Targets

## Overview

The DWP's guidance for pension schemes submitting TCFD reporting suggests that the following metrics are chosen: an absolute emissions metric (total absolute greenhouse gas emissions), a carbon intensity metric (carbon footprint), an additional non-emissions-based metric, and a portfolio alignment metric.

The Trustee has chosen the following metrics and targets<sup>6</sup> from within this guidance framework:

DWP Suggested Metric	Trustee's selected metric	Rationale	Has the Trustee set a target on this metric?
<b>Absolute emissions</b>	Total financed emissions	This is the absolute emissions metric recommended by the DWP.	<b>No</b>
<b>Emissions intensity</b>	Carbon Footprint	This is the emissions intensity metric recommended by the DWP.	<b>Yes</b>
<b>Additional metric</b>	PCAF Data Quality Breakdown <sup>7</sup>	Provides insight into the reliability of underlying climate data, thereby enhancing the reliability of the output from the Scheme's other metrics.	<b>No</b>
<b>Portfolio Alignment</b>	Science-based targets initiative (SBTi)	This metric examines whether a voluntarily disclosed company decarbonisation target is aligned with a relevant science-based pathway. There is evidence that companies that have set science-based targets are delivering emissions reductions in line with their ambitions, making this a key metric to monitor to drive positive change.	<b>Yes</b>

The chosen metrics will be reviewed at least annually to ensure they remain relevant and appropriate for the Scheme. Recognising the nascency of climate metrics in an investment context, there may be situations in the future whereby the Trustee may consider replacing its metrics with ones that are more appropriate, for example, if there are changes in methodologies or in the regulatory requirements, following changes in data quality/availability, or the emergence of more robust metrics/methodologies.

Going forward, the Trustee will continue to monitor climate change aspects annually using the metrics and targets above and identify the climate-related risks and opportunities which are relevant to the Scheme. Actions may include, for example, engaging with fund managers who have high carbon intensity levels or with other industry participants, exploring low-carbon alternative investment options, and updating investment guidelines for managers where the Trustee has discretion to make such changes. Similar to the previous iteration of this Statement, emissions from investments in Liability-Driven Investments ("LDI"), buy-in contracts and Orelle are excluded from the main analysis on the basis that the Trustee has limited control of the emissions of these assets. However, the Trustee understands that this is a fast-moving area

<sup>6</sup>Please note, it is a statutory requirement to set a minimum of one target(s) against one of the metrics the Scheme monitors.

<sup>7</sup>The Partnership for Carbon Accounting Financials ("PCAF") as defined in the [Glossary of Terms](#).

and therefore may revisit this in future as best practice develops (the Trustee has also included the emissions of the LDI portfolio, as provided by LGIM, in Appendix B for completeness). This could in turn materially change the results of the analysis presented in this report. The Trustee notes that data gaps are still present in the analysis available to them, and will work, in conjunction with Redington, to engage with its investment managers to improve upon this. Redington and the Investment Executive typically engage with the Scheme's managers on an ongoing basis, and direct engagement with managers is conducted by the Trustee on an annual basis when a manager is invited to provide a fund update. The Trustee notes data gaps are to be expected at this point in time given this is an evolving area and expects to see data quality (and coverage) improve across the industry over time in response to new regulations.

## Metrics

The results of the analysis for the above metrics as of 30 September 2024 are shown below.

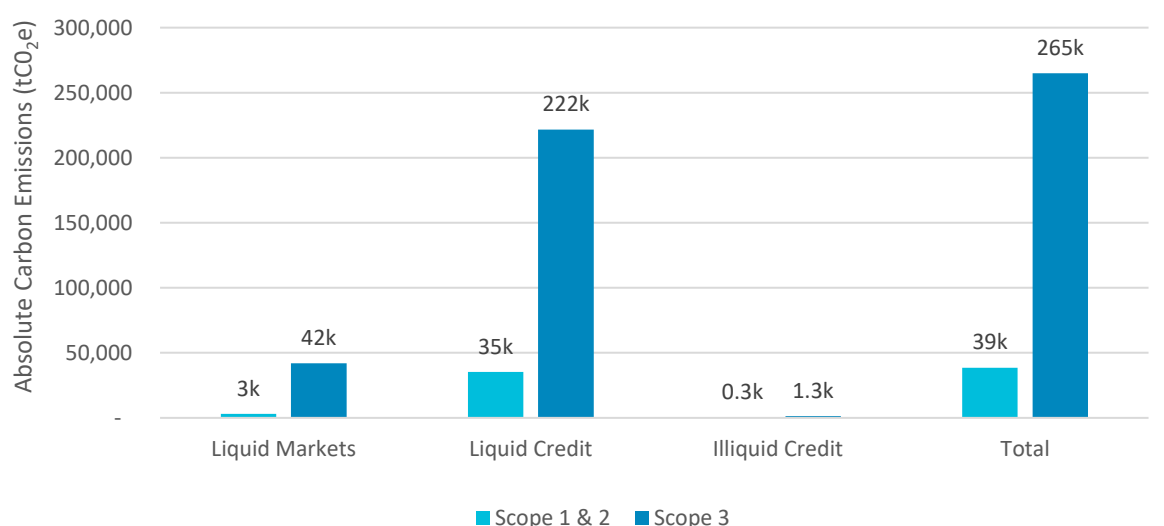
### 1. Total Financed Emissions

The Trustee has chosen total financed emissions as the main metric for absolute emissions – the metric shows the total greenhouse gas emissions that are financed by the Scheme's investments, also known as category 15 (investment emissions) in the Greenhouse Gas ('GHG') Protocol.

There are three scopes of carbon emissions:

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

Financed emissions are calculated as the proportional share of the Scope 1 and Scope 2 GHG emissions for each relevant investment, based on the size of the investment relative to the Enterprise Value Including Cash ('EVIC') of the respective company – the EVIC is a measure of a company's total value.



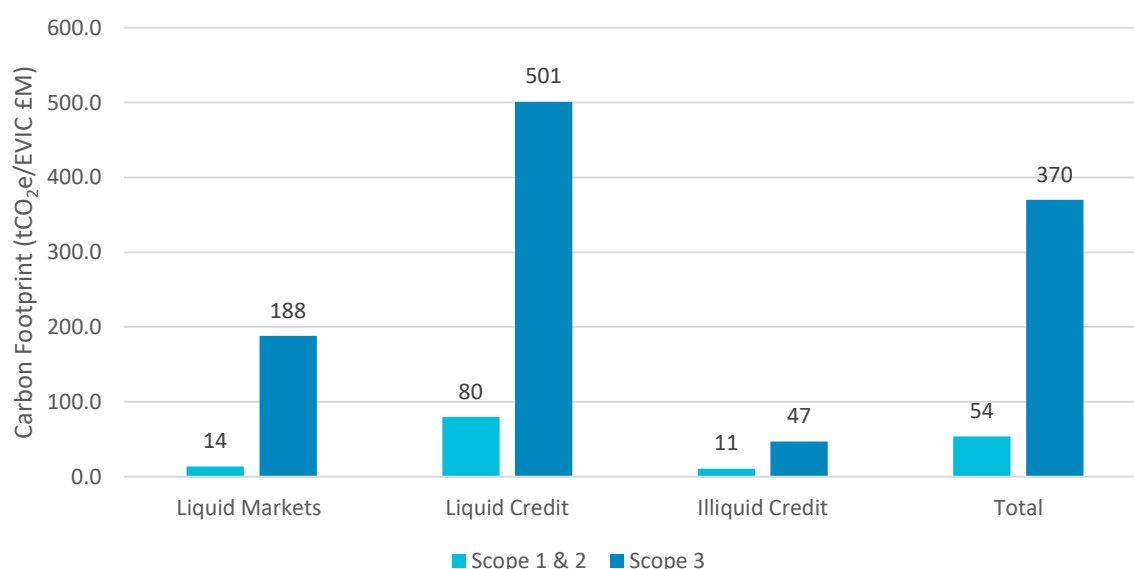
*Data for the Scheme's farm holdings is excluded given these do not produce material carbon emissions in the context of the Scheme investment portfolio and are in the process of being sold.*

## 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 and is therefore 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 its portfolios. In addition, the Trustee understands that, for any future insurer transactions, insurers may consider the extent to which investments being offered by the Trustees in settlement of the transaction are climate-aligned.

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 Trustee uses this metric to monitor progress towards net zero, noting it is subject to the Trustee's fiduciary and financial objectives.



*Zero emissions are assumed for the Scheme's farm holdings given these do not produce material carbon emissions in the context of the Scheme investment portfolio and are in the process of being sold.*

*The total columns are a weighted average of the emissions across each asset class shown and therefore do not equal the sum of the individual columns.*

**Key takeaway:** Per million pounds invested, the Scheme's liquid credit funds have the highest emissions. The Trustee continues to engage with the Scheme's liquid credit managers on reducing their carbon footprint.


### 3. Additional Climate Change Metric

For the non-emissions based metric, the Trustee monitors the Partnership for Carbon Accounting Financials (“PCAF”) Data Quality Breakdown. This year, the PCAF metric is now reported as a breakdown of data quality across each fund, rather than a single score per fund as was reported last year. This provides a more accurate overview of the data quality for the underlying securities within the funds.

The Trustee will use the results of the analysis to prioritise engagement efforts with its investment managers (i.e., engage with managers who have poor data quality, asking them to improve).

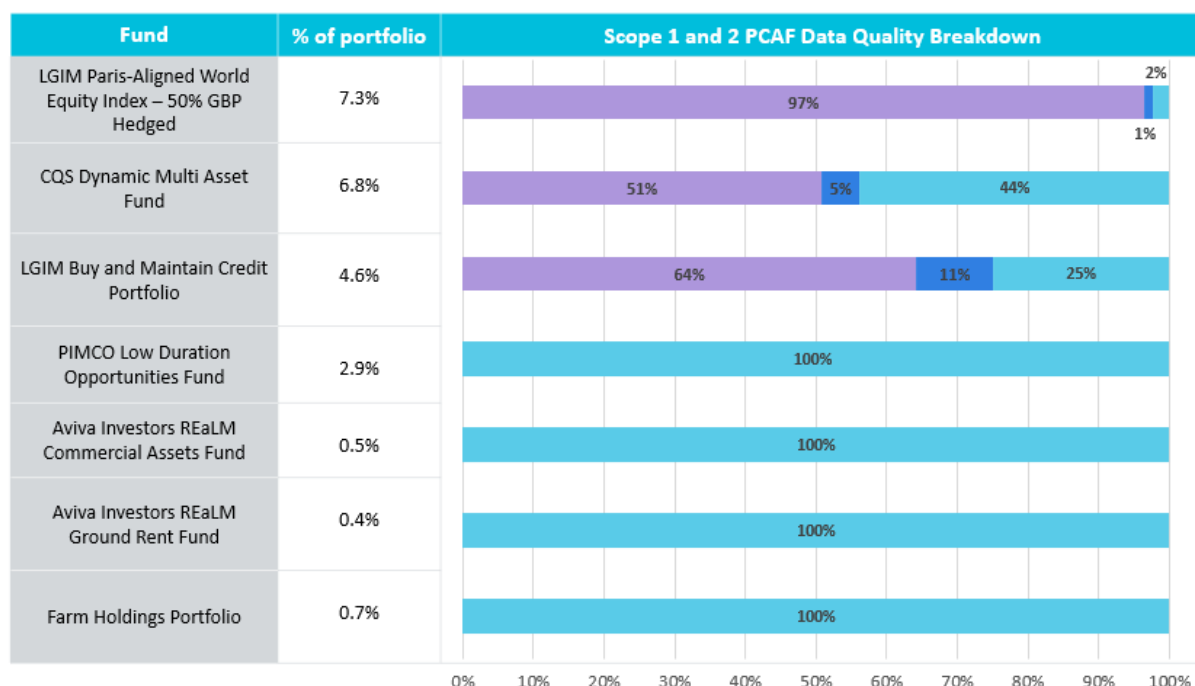
The PCAF Data Quality Breakdown monitors the reliability of companies’ emissions data. The scoring system ranges from one to five, with one representing the highest data quality, which involves independently verified emissions data, and five indicating the lowest quality, characterised by estimated emissions data derived from industry averages. Further information on this metric is set out in Appendix B.

Below are the results as of 30 September 2024, showing the Scheme’s asset distribution by data quality scores for Scope 1 & 2<sup>8</sup>. See Appendix B for the data quality scores of Scope 3.

<div> Least certainty in data  Most certainty in data </div>					
PCAF Score	5	4	3	2	1
Data Criteria	Estimated emissions based on economic data – such as sectoral revenues and asset turnover ratios.	Estimated emissions based on economic data – such as revenue, company value and the amount lent/invested.	Estimated emissions based on the company’s production data. For example, tonnes of steel produced.	Unverified reported emissions or estimates based on the company’s energy consumption, in line with the Greenhouse Gas Protocol.	Reported emissions, based on the Greenhouse Gas Protocol, that have been verified by a third-party auditor.

Key	
	Score 1 - Verified
	Score 2 – Unverified or estimated from energy consumption
	Score 3 – Estimated from company production
	Score 4 – Estimated from company revenue and sector
	Score 5 – Other estimated

<sup>8</sup> Please note, the percentage of total portfolio has been calculated including Orelle & buy-ins and therefore does not sum to 100%.

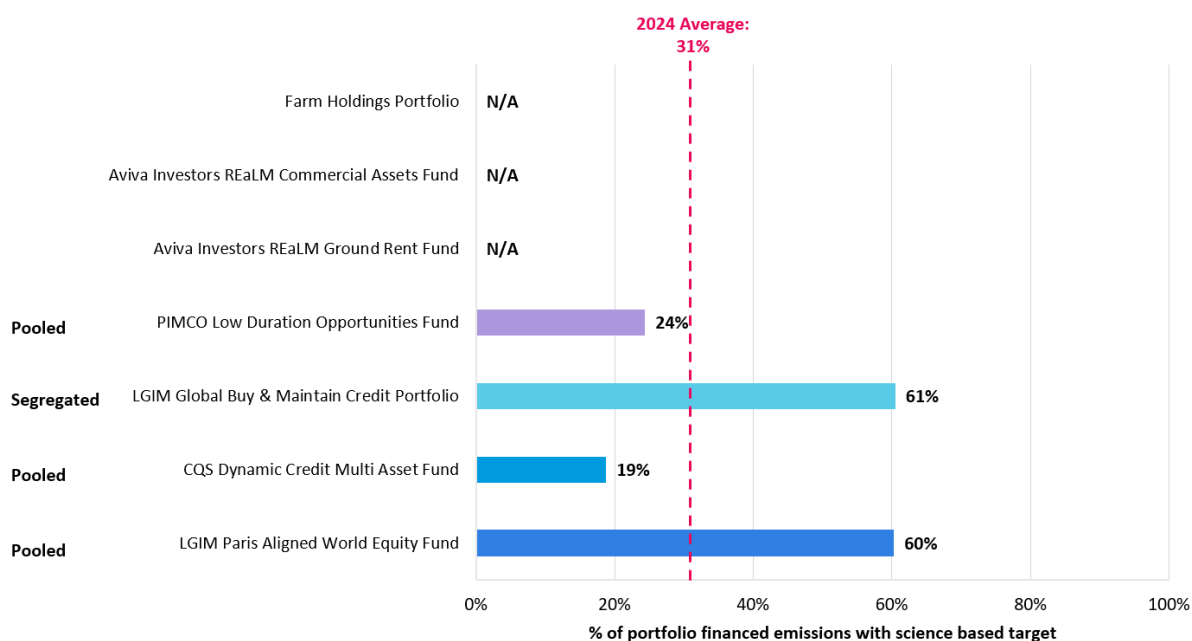


**Key takeaway:** Of the Scheme’s assets that are being measured, the majority have a data quality of score 2. This is an indication that a good proportion of available emissions data is sourced either directly via reported emissions or using the high-quality estimate based on companies’ energy consumption. This is considered high quality emissions data. The Trustee is comfortable with the limited data availability for the Aviva and Farm Holdings portfolios, given the nature of their underlying strategies and that the Trustee is currently partway through or exploring an orderly sale of those portfolios.

#### 4. Portfolio alignment

The Trustee has adopted the Science-Based Targets initiative metric 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 denotes the implied global temperature increases that coincide with the decarbonisation target. Whilst the Trustee is aware that the “SBTi Approved 2°C” decarbonisation target will be gradually phased out in line with the initiative’s raised ambition to 1.5°C, the Trustee will continue to report under the “SBTi Approved 2°C” decarbonisation target to capture companies currently on a 2°C path until they increase their target ambition to 1.5°C in the next few years. The SBTi rating of a fund shows what percentage of emissions from companies that are classified as being Paris-aligned using the binary SBTi metrics. Further information on this metric is set out in Appendix B.

Below we show the performance of the Scheme’s investment strategy as at 30 September 2024, at the fund-by-fund level, as well as at the overall portfolio level. Further details on how these metrics have changed year-on-year, as well as the relevant action to be taken by the Trustee, can be found in the next section “Targets”.



**Key takeaway:** As at 30 September 2024, 31% of portfolio financed emissions have set science-based targets.

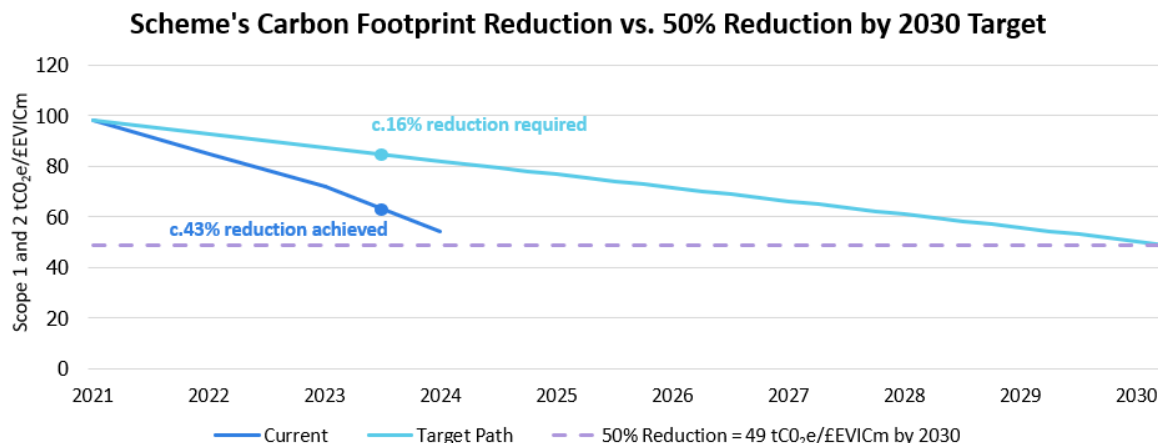
## Targets

### 1. Monitoring Target: Net Zero

In September 2021, the Trustee set a target to be net zero by 2050, with an interim target of a 50% reduction of carbon footprint (Scope 1 and 2 emissions) by 2030, excluding LDI and non-investable assets (i.e., buy-ins and Orelle), using a base year of 30 September 2021 to monitor progress against the target annually. The chart below shows the progress against this target.

The chart below excludes Scope 3 emissions and instead focuses only on Scope 1 and 2 emissions. This has been done on the basis that measuring Scope 3 emissions is currently unreliable as it relies on a number of assumptions. To a large extent emissions are not being reported by companies and are instead estimated (as shown by the reported data quality above). Another issue with Scope 3 emissions is “double counting”, as one company’s Scope 3 emissions will be another company’s Scope 1 or 2 emissions. The Trustee does report and monitor Scope 3 emissions separately and will potentially include it in net zero targets in the future as best practice evolves.





Source: Analysis by Redington as at 30 September 2024, using data from MSCI.

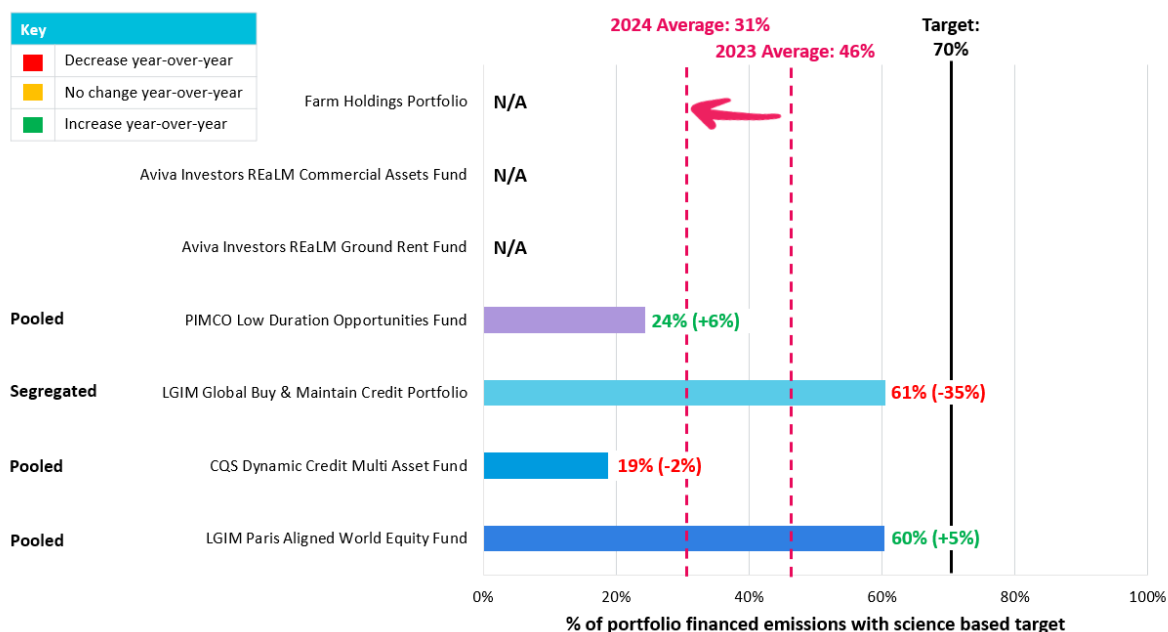
#### Key takeaway:

As at 30 September 2024, the Scheme is ahead of track vs. its net zero target, achieving a 43% reduction in emissions versus a required reduction of 16% to remain on target. The Trustee notes it has limited influence on the emissions of the pooled mandates in which it invests, but changes could be made by selecting new pooled mandates; however, any such changes would need to be made in the context of the Trustee's fiduciary duty and other strategic objectives.

## 2. Actionable Target: Science-Based Target

In order to help the Scheme meet its net zero goals, the Trustee has set a target which it can more readily take action against on an ongoing basis, i.e., an 'actionable target'. In particular, the Trustee has agreed that by 2030, 70% of portfolio financed emissions should have science-based net zero targets. Based on current best practice, the Trustee has agreed to measure progress towards this target using the SBTi metric (although it notes this could change in future, if new and improved metrics are produced). The Trustee will monitor progress towards this target and engage with managers that are not meeting requirements. As more of the underlying companies within the Scheme's portfolio set science-based targets, the expectation is that emissions will fall towards net zero over time. The 70% threshold has been developed in line with industry best practice, building upon the Institutional Investors Group on Climate Change (IIGCC) Net Zero Framework.

Below we show how the Scheme's investment strategy compares to the 70% target, at the fund-by-fund level, as well as at the overall portfolio level. Where a fund was in place last year, the **absolute % change** in the metric over the period has also been reported:



**Key takeaway:** As at 30 September 2024, the Scheme is behind its 70% target, but given the target date of 2030, this is not currently noted to be a significant concern. It is however noted that there was no progress against the target this year, and the overall SBTi score fell from 46% to 31%. This was due to a combination of factors: the full disinvestment from Hermes, which previously scored highly and above the Scheme average SBTi score; a higher weighting to CQS, due to increased data availability on financed emissions, which scores less favourably; and a significant drop in the SBTi score for LGIM B&M, which was a result of the overall emissions coverage for the portfolio increasing from 40% to 74%, and the new positions mostly happening to be companies which have not set a science based net zero target. The Trustee acknowledges that improving data quality may introduce volatility in tracking progress towards this target and will continue to monitor both the progress and the methodology used in the future.

The Trustee is comfortable with the limited data availability for the Aviva and Farm Holdings portfolios, given the nature of their underlying strategies, and given the Trustee is currently exploring an orderly sale of both portfolios, with full redemption requests placed for both Aviva funds.

## LDI and non-investable assets

The Trustee has not included the emissions of the LDI portfolio in the analysis above, but further details of this can be found in Appendix B. The Trustee has also not included the buy-in contracts with the Scheme's insurance policy providers: Pension Insurance Corporation Plc; Legal and General Assurance Society Limited and Just Retirement Group. The Trustee has reviewed the 2023 TCFD disclosures of all three providers and notes they have all committed to be net zero by 2050 and are therefore on the same strategic pathway as the Trustee. The Trustee notes each insurer also has a multitude of other climate-related targets (both within their operations and for the portfolios they operate) as well as additional climate-related metrics for monitoring (including science-based targets). The Trustee is encouraged by the level of alignment here and will continue to monitor this on behalf of its members on at least an annual basis as part of its TCFD reporting.

# Appendix A. Scenario Analysis

## Scenario Analysis

The Trustee uses climate scenario analysis developed by the Network for Greening the Financial System (“NGFS”). The scenarios are granular and rigorous at company/instrument level and also capture upside potential from climate opportunities, rather than focusing only on downside risk. The methodology has been updated this year to align with phase III of the NGFS stresses (which MSCI has adopted). This included introducing separate physical risk scenarios for each scenario and a greater focus on tail-risk outcomes for physical risk scenarios. In addition, the time horizons have been reduced from 2100 to 2050 and more granular industry treatment for the most polluting sectors has been introduced.

Similar to last year, a 2°C increase appears the more likely and realistic outcome compared to a 1.5°C degree outcome, hence the Trustee has only included the results of the 2°C orderly and disorderly scenarios, as well as the hot house world scenario, in this Statement.

Given the Trustee’s desire to remain aligned with emerging good practice, the Trustee is considering this topic with its Investment Advisor. The Trustee will remain informed on developments and will continue to look for opportunities to alter its approach to scenario analysis and climate modelling as methodologies change. As approaches are still developing, the methodology used for the analysis in this Statement has not changed significantly versus last year’s Statement.

# Appendix B. Further Detail on Metrics & Targets

## Emissions Data

Where possible and where there is reasonable data coverage, the Trustee monitors 'line-by-line' emissions reporting for funds. These tend to be more generic, long-only asset classes such as listed equity and corporate credit. For funds with less than 50% coverage, aggregated emissions are calculated on the portion of holdings that have ESG data coverage, with the remaining holdings proxied using the covered portion of the fund. The Trustee notes using asset class modelling of emissions for the portion of assets where line-by-line 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. In the analysis in this Statement, the funds which have been modelled using 'line-by-line' data are the two strategies managed by LGIM (equities and buy and maintain) and the CQS Dynamic Credit Multi Asset Fund. Where negative holdings<sup>9</sup> exceed 2% of the strategy, the Trustee uses only 'asset class level' carbon estimates. The asset class modelling of emissions has been provided by Redington and is based on asset class 'building blocks'. These are either calculated directly using a given index's underlying holdings emissions (such as using MSCI ACWI as a proxy for a broad equity fund) or in some cases these indices are used and extrapolated to other asset classes based on given assumptions (such as using the emissions of infrastructure firms within an index to proxy an infrastructure fund). The methodology used is kept under review by Redington to ensure it remains aligned with best practice, and the aim is that data coverage and quality will improve over time (the Trustee notes this may lead to material year-on-year changes of the metrics which it monitors). Emissions metrics are calculated in line with the GHG Protocol Methodology, the global standard for companies and organisations to measure and manage their GHG emissions. The GHG Protocol provides accounting and reporting standards, sector guidance and calculation tools. It has created a comprehensive, global, standardised framework for measuring and managing emissions from private and public sector operations, value chains, products, cities and policies to enable greenhouse gas reductions across the board.

### Emissions in the LDI portfolio

Although the Trustee has excluded emissions from the LDI portfolio in its analysis in the main body of this statement, the Trustee has included the LDI portfolio emissions below, as provided by LGIM, for completeness:

Absolute Carbon Emissions (tCO <sub>2</sub> e)		Carbon Intensity (tCO <sub>2</sub> e/EVIC £m)	
(Scopes 1 + 2)	(Scope 3)	(Scopes 1 + 2)	(Scope 3)
48	48,853	0.3	263.0

The Trustee notes the UK's current Nationally Determined Contributions ('NDCs') are insufficiently aligned with the goals of the Paris Agreement (Source: [Targets | Climate Action Tracker](#)). NDCs are the policies the UK government has committed to which may not translate into concrete actions. However, despite this, the

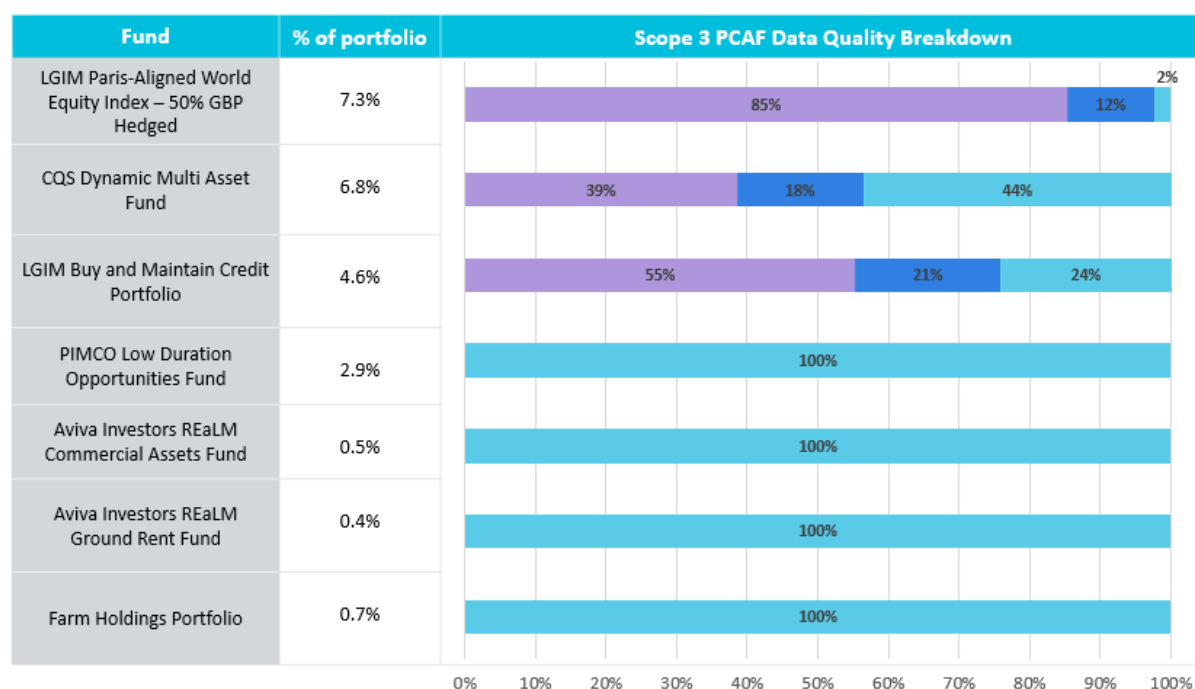
<sup>9</sup>Negative holdings refer to short positions with emissions associated to them.

Trustee notes the UK's NDCs are broadly aligned with (and stronger than some other) developed countries, e.g., the G7. The Trustee notes it has limited ability to influence carbon emissions of sovereign nations; however, it also notes the development of industry initiatives aimed at assessing climate change-related risks and opportunities at the sovereign level. The Trustee will keep this item under review going forward as best practice evolves.

## PCAF Data Quality Breakdown

Below shows the results of the Scheme's asset distribution by data quality scores for Scope 3, as of September 2024.

Key	
	Score 1 - Verified
	Score 2 – Unverified or estimated from energy consumption
	Score 3 – Estimated from company production
	Score 4 – Estimated from company revenue and sector
	Score 5 – Other estimated



The Partnership for Carbon Accounting Financials (“PCAF”) data quality breakdown monitors the reliability of entities’ emissions data. The scoring system ranges from one to five, with one representing the highest data quality, which involves independently verified emissions data, and five indicating the lowest quality, characterised by estimated emissions data derived from industry averages. For the purpose of TCFD reporting, the Scheme will report this breakdown on an annual basis, monitoring progress over time (on a fund-by-fund basis).

## SBTi Rating

The Science-Based Targets initiative score is a portfolio alignment metric which examines whether a voluntarily disclosed entity decarbonisation target is aligned with a relevant science-based pathway. Companies/issuers have 24 months to develop this pathway or ‘target’, submit for validation from the Science-Based Targets Initiative (SBTi) and publish the approved target. SBTi categorise targets into “SBTi

Approved 1.5°C”, “SBTi Approved Well Below 2°C” or “SBTi Approved 2°C”, denoting the implied global temperature rise targets are in line with. Using line-by-line data, the percentage of emissions from companies that are classified as being Paris-aligned is calculated. A scheme-level score is calculated as the value weighted average (by financed emissions) of the fund-level scores. Should a company/issuer’s decarbonisation pathway not comply with either of the Paris-aligned targets, it will be assigned a ‘Not Committed’ rating.

## **MSCI data disclaimer**

This disclosure was developed using information from MSCI ESG Research LLC or its affiliates or information providers. Although Siemens Benefits Scheme’s information providers, including without limitation, MSCI ESG Research LLC and its affiliates (the “ESG Parties”), obtain information (the “Information”) from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness, of any data herein and expressly disclaim all express or implied warranties, including those of merchantability and fitness for a particular purpose. The Information may only be used for your internal use, may not be reproduced or disseminated in any form and may not be used as a basis for, or a component of, any financial instruments or products or indices. Some funds may be based on or linked to MSCI indexes, and MSCI may be compensated based on the fund’s assets under management or other measures. MSCI has established an information barrier between index research and certain Information. Further, none of the Information can in and of itself be used to determine which securities to buy or sell or when to buy or sell them. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein, or any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

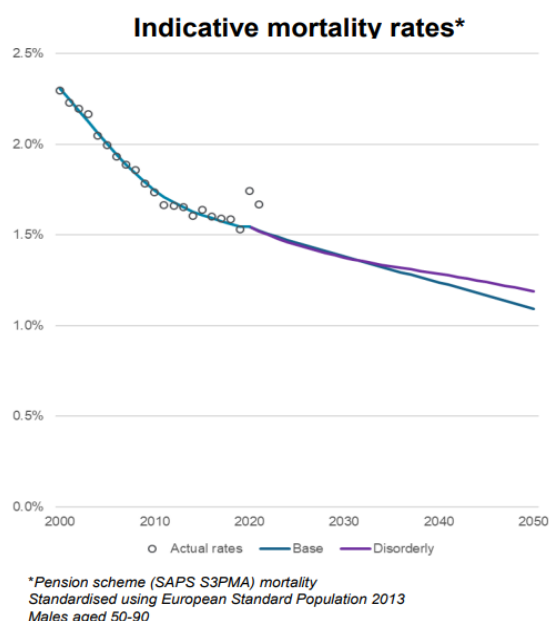
# Appendix C. Aon output of Impact of Mortality on Climate Change

## Scenario 1 – Disorderly Transition

### S01. Disorderly Transition

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

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



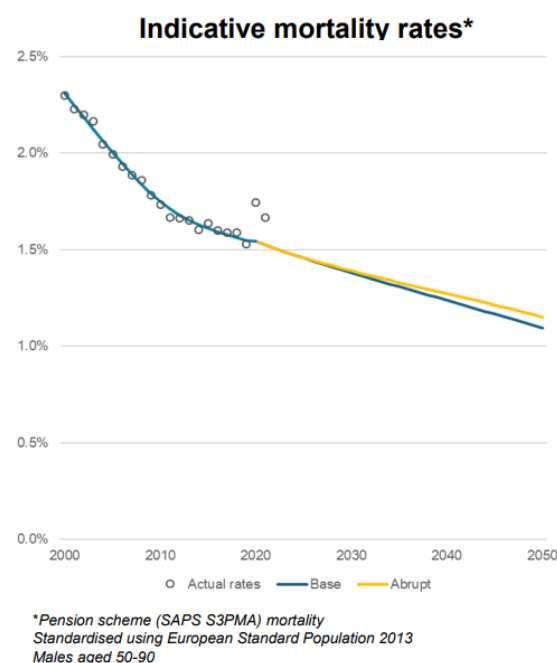
## Scenario 2 – Abrupt Transition

### S02. Abrupt Transition

The green policy measures create considerable economic disruption, hampering economic growth and hurting corporate profitability, initially leading to a global recession in 2027 followed by several years of weak growth as the transition to low carbon is made.

Significant falls in GDP only start occurring from around year 5 and start to recover from around year 12.

Short to medium term mortality improvements are in line with the base scenario but longer-term improvements are slightly lower.





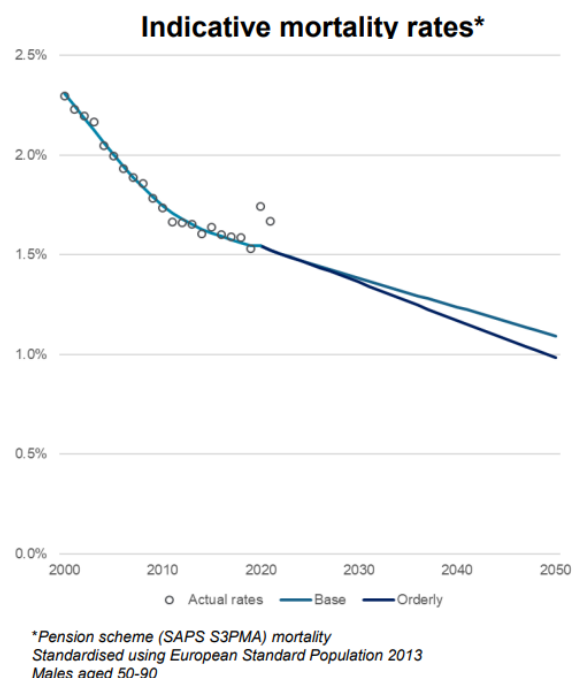
## Scenario 3 – Orderly Transition

### S03. Orderly Transition

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

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

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



## Liability Impact of Each Scenario

NGFS scenario	Aon Scenario	Aon assumed Long-term improvement in mortality	Ultimate liability impact from mortality
n/a	Base Case	1.5% p.a.	-
Hot House World: NDCs	Disorderly Transition	1.0% p.a.	-1.5%
Disorderly: Delayed Transition	Abrupt Transition	1.5% p.a.	-1%
Orderly: Below 2c	Orderly Transition	2.0% p.a.	+2%

### Modelling Assumptions:

- **Data used:** deaths and populations for years 1960-2020 as published by ONS and used by CMI in the industry standard CMI mortality projections model CMI\_2020. 2021 data added to historic data points (but CMI model not updated to CMI\_2021 at this stage.)
- For charts, mortality standardised using the European Standard Population 2013 for ages 50-90 as set out in this paper: [Revision of the European Standard Population - Report of Eurostat's task force - 2013 edition - Products Manuals and Guidelines - Eurostat \(europa.eu\)](#)
- **Model:** industry-standard mortality projections model CMI\_2020 with varying parameters to reflect short-and long-term impacts of different scenarios on mortality. The key parameters used were the

Initial Addition (A) parameter which increases or decreases improvements in the near-term, and the long-term rate parameter (LTR) which increases or decreases improvements in the long term. Adjustments were applied to assumed base mortality to ensure that the rate used in 2020 was the same across all scenarios.

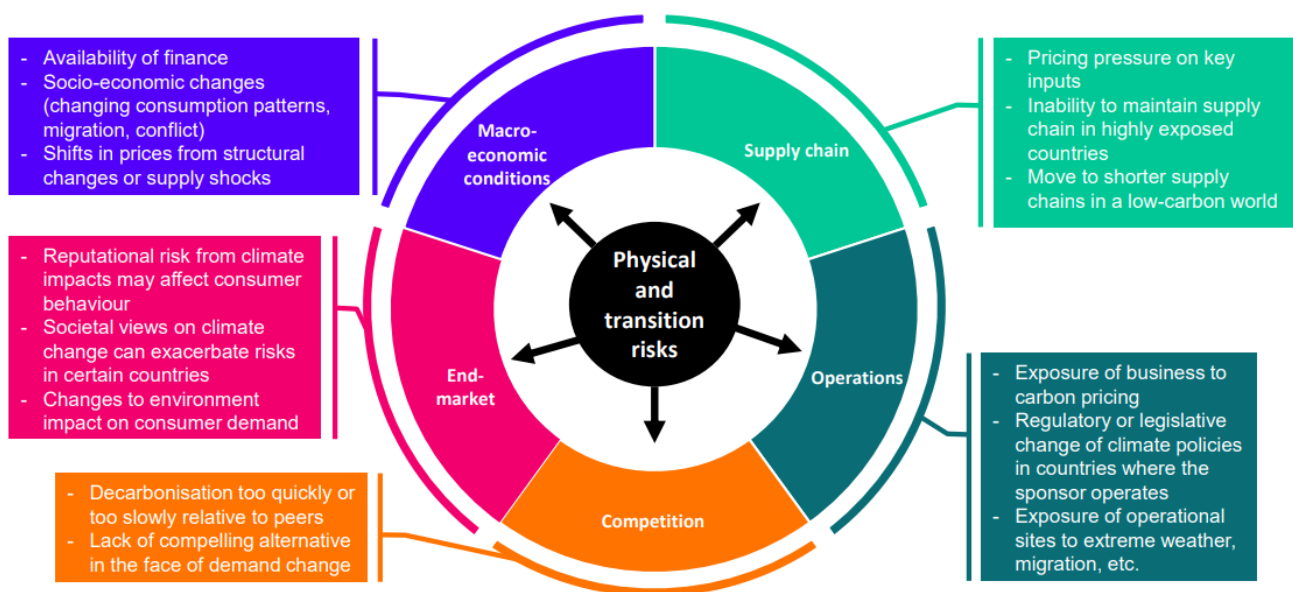
- In the charts included in this Statement, male mortality rates are used, assuming standard (SAPS S3PMA) mortality rates<sup>10</sup>. Circles for “actual rates” are based on a run of the CMI model without using the standard smoothing parameters.
- Charts illustrate mortality rates up to 2050, but rates were provided up to 2150 to enable liabilities to be calculated. Descriptions of each scenario and its possible impact on future mortality (short-term and long-term) are provided in the scenario analysis.
- Liability impacts of each scenario were calculated based on the ratio of male life expectancy at age 60 and rounded to the nearest 0.5%. It is noted that the impact could be different depending on discount rate. A difference might also be expected for joint life annuities although it’s not likely that they will be significantly different given that figures are rounded to 0.5%.
- **Limitations:** these scenarios provide an indication as to what might be expected in particular scenarios, to provide an impact of mortality on liabilities to place alongside the impact from financial variables on the liabilities and the impact on assets from investment returns of the given scenario. The scenarios are not intended to provide the highest or lowest possible outcomes, and are not intended to show what **will** happen, rather they give a reasonable range of impacts against which to consider the possible impact of climate change on a particular pension scheme. The scenarios are deliberately not given likelihoods, and we have not sought in any way to estimate how likely each scenario is.
- Scenarios are essentially expressed relative to a scheme’s current position (i.e., the central scenario). If a scheme is already specifically reflecting a particular belief on the current path (for example, if it is believed that we are heading to a “No transition” scenario) then variations should be expressed relative to that scenario rather than the central one, otherwise the liability impact of that scenario would be incorrect for that scheme. At this stage we don’t believe schemes are reflecting views on climate change in this way, but this may be (explicitly or implicitly) the case in future.

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<sup>10</sup> Aon focused on a single sex for calculation simplicity and chose males as there are significantly more males than females in the Scheme membership. Aon would expect the female impact to be very similar if not identical at the level of rounding used.

# Appendix D. Cardano output of Impact of Climate Change on Covenant

**Figure 1 - Transmission Channels**



**Table 1 – Climate scenarios**

The following three climate scenarios, consistent with the scenarios considered by the Trustee's investment and actuarial advisors, were considered for the covenant scenario analysis.

	2°C Disorderly	2°C Orderly	Hot House World (NDCs)
<b>Scenario outline</b>	Delay in reduction in global annual emissions until 2030. Strong policies are then needed to limit warming to below 2°C	Global decarbonisation starts now so policies intensify gradually but are implemented immediately. Large transition changes will happen quickly with limited variation in regional decarbonisation policies	No new transition policies above existing pledges lead to continued increase in GHG emissions and rise in global temperatures
<b>Physical risks</b>	Long-term physical risks are reduced but deviations from the present climate are still expected	Long term physical risks are reduced but deviations from present climate still expected	More pronounced physical risks – particularly over the longer-term
<b>Transition risk</b>	Highest in the medium-term as policy implementation is delayed	Highest in the near- to medium-term as policies increase in stringency	Limited transition risks over above existing commitments and policies
<b>Macro-economic impact</b>	Compressed nature of emission reductions drives material short-term macroeconomic disruption and a sharp fall in GDP	Sudden divestments have disruptive effects on financial markets. Following initial shock there is partial recovery	UK and global GDP growth permanently lower with that impact increasing over time. Macroeconomic uncertainty rises
<b>Change from 2023 assessment</b>	Updated model	Updated model	Updated model

# 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 (tCO<sub>2</sub>e/EVIC £m):** Measurement of the estimated Scope 3 CO<sub>2</sub>e 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.

**NGFS scenarios:** the Network for Greening the Financial System (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.

**PCAF Data Quality Breakdown:** The Partnership for Carbon Accounting Financials (PCAF) data quality breakdown monitors the reliability of companies' emissions data.

**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.

**Scope 1 & 2 Carbon Footprint (tCO<sub>2</sub>e / EVIC £m):** Measurement of the Scope 1 & 2 CO<sub>2</sub>e 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 or from purchased heat, steam or cooling.

**Total Carbon Footprint (tCO<sub>2</sub>e / EVIC £m):** Measurement of the CO<sub>2</sub>e 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 MSCIs methodology. This metric may be used to assess a funds contribution to global warming versus other funds. Previous Total Carbon Emissions (tCO<sub>2</sub>e / £m invested) are estimated by looking at the funds' respective holdings and emissions 12 months ago.

**Tonnes of Carbon Dioxide Equivalents (tCO<sub>2</sub>e):** 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 gases are considered carbon equivalents.

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