Task Force for Climate Related Financial Disclosures Report

June 2024

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Pilkington Brothers Superannuation Trustee Limited

Member Summary from the Chair

Pension schemes are long-term in nature. The Trustee recognises that the ability to achieve a sustainable return is a key issue within its investment strategy. The Trustee believes considering environmental, social and governance factors (including climate-related risks and opportunities) (together, "**ESG Factors**") in its investment decisions will improve risk and return, helping it achieve its principal aim of meeting members' benefits, and will have a positive impact on the society in which our members live.

This report provides information on how the Trustee has:

- established and maintained oversight of climate-related risks and opportunities, not only in relation to the Scheme's investments, but also in respect of the impact on Scheme liabilities and the Company covenant (its ability to support the Scheme);
- thought strategically about the climate-related risks and opportunities that will have an effect on the Scheme;
- established and maintained processes for the purpose of enabling it to identify, assess and manage climate-related risks which are relevant to the Scheme, and ensured that its overall risk management integrates these processes;
- used metrics to inform its understanding and monitoring of the Scheme's climate-related risks and opportunities (however, the quality of data is still evolving and further developments are anticipated going forward); and
- set a target for the Scheme in relation to at least one of the metrics calculated.

The Trustee has endeavoured to provide a concise report that can be easily read and understood by members. The specific considerations relevant to the Pilkington Superannuation Scheme ("PSS" or "the Scheme") are provided under headings of the key obligations that the Trustee is expected to comply with. This is intended to help you understand both the expectations on the Trustee, and how the Trustee has met those expectations. Disclosures may evolve over time but there will be an explanation of significant changes.

The Trustee has set a long-term target for reducing carbon emissions to net zero by 2050, as well as an interim target to reduce carbon emissions by 30% by 2030. The first year results, as published in 2023, showed that the 2030 target had already been exceeded, but this was largely due to the metrics being affected by the way the carbon emissions were measured and reported. The Trustee has taken time over the last year to consider how to report the metrics to ensure these are meaningful. As such it has decided to re-set the baseline date to 31 December 2022 in order to exclude the first year, for which the data quality was particularly low.

The Trustee has also decided to exclude emissions associated with the Liability Driven Investment (LDI) and buy in assets from the reporting of targets, consistent with the approach that other schemes are adopting. These assets are predominantly insurance policies and government bonds which are designed to closely match the payments due from the Scheme. At present there is no meaningful way to calculate the metrics for these assets, and there is little scope for the Trustee to have any influence on the metrics. The emissions from these assets are still included in the table on page 23 for completeness.

The Trustee believes in promoting carbon reduction across a wide range of sectors rather than achieving lower carbon emissions by switching investments to sectors that have lower emissions due to their nature rather than their efforts to reduce global carbon emissions. During the year, the Trustee moved its regional equity investments to a Global adaptive cap fund with an ESG overlay. This fund promotes investment in entities with the potential to support carbon reduction initiatives, as well as other ESG considerations. In moving away from concentrated positions in "tech" and finance industries that have a lower carbon intensity by nature rather than intent, the carbon emission metrics were expected to worsen. The Trustee believes this investment is wholly consistent with its overriding beliefs and will support climate initiatives in the long-term. In fact the move has resulted in a reduction in overall emissions despite the factors above.

Each year the Trustee invites its investment managers to present on their performance during the year and outlook. Our managers were aligned with the object of not simply targeting lower numbers in respect of emissions and commented on the importance of engaging with entities both to understand the risks and opportunities and to promote action in those entities showing room for improvement.

The report is structured into the following 5 areas:

1. **Governance:**
   The Trustee has a well-established governance and oversight framework that addresses ESG Factors, including climate-related risks and opportunities, which are relevant to the Scheme. The Trustee works effectively with other advisers who undertake or advise on its governance activities and has put processes into place to ensure each of those entities is taking adequate steps to identify, assess and manage climate-related risks and opportunities. There have been no significant changes to the governance framework in the current year.

2. **Strategy:**
   The Trustee has identified the following climate-related risks and opportunities that may impact the Scheme in the short-term, medium-term and long-term:
   - **Physical risks** (i.e. those that are a direct result of climate change): they include the effects of climate-change related natural events on the businesses the Scheme is invested in, and the effect of changing temperatures or significant weather events on mortality.
   - **Transition risks and opportunities** (i.e. those that are a result of the transition towards net zero): they include regulatory or societal changes affecting the value of the businesses the Scheme is invested in, and benefits from early investment in carbon reduction initiatives.

   Based on the average duration of the liabilities of the Scheme, the Trustee considers the appropriate time horizons for the Scheme to be:

   Short term: 5 years ⟷ Medium term: 5-15 years ⟷ Long term: 15 years or more

The Trustee has analysed four scenarios: Lowest Common Denominator, Inevitable Policy Response, Global Co-ordinated Action and Climate Emergency. These are explained in detail on page 11. The Trustee considered the impact of an instantaneous climate shock which assumes investors immediately price in their long-term expectations of the impacts from each scenario. This analysis identified that the impact on life expectancy may well be greater than the impact on the assets from a funding perspective. The Scheme's investment strategy is reasonably resilient to the shocks that may result from climate change considerations due to the diversification of assets held, however, may need to be adapted to ensure it is able to support the increased life expectancy that may come from actions to address climate change to ensure the funding strategy remains resilient.

The Trustee considers that the potential impacts on the Scheme's assets and liabilities of these scenarios can be mitigated by addressing the relevant risks and opportunities. The Scheme is well-funded, is significantly de-risked, and has appropriate hedging and other safeguards in place to minimise the possibility of significant downturns. It is also supported by the sponsoring Company.

Overall the Trustee considers that the Scheme's investment strategy and funding strategy would be generally resilient to the impacts of the scenarios analysed.

3. **Risk Management:**
   The Trustee's processes for identifying, assessing and managing climate-related risks largely replicate its processes for how it considers other risks and opportunities, and as such they are integrated into the Trustee's overall risk management of the Scheme through the existing governance and risk-management framework.

4. **Metrics:**
   The Trustee has calculated Total Carbon Emissions, Weighted Average Carbon Intensity, Data Quality and Implied temperature rise metrics and has used those metrics to identify and assess the climate-related risks and opportunities which are relevant to the Scheme. No data has been treated as unobtainable. Where there were gaps in data available from the investment managers, the Trustee obtained estimated data from its investment consultants based on data available from similar funds. The availability of data was considered when selecting metrics to limit the likelihood of gaps in data.

5. **Targets:**
   The Scheme re-set its baseline at 31 December 2022 and measured absolute scopes 1+2 emissions of 39,686 tCO_2e excluding those associated with LDI, the buy-ins, longevity swap, cash and other residual balances. At 31 December 2023, the date of this report, absolute emissions were 35,425 tCO_2e, a fall of 11%.

Signed on 25 June 2024

Rachel Tranter, BESTrustees Ltd
Chair of the Trustee
Pilkington Superannuation Scheme

This report seeks to comply with the key requirements are set out in the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021, the Occupational Pension Schemes (Climate Change Governance and Reporting) (Miscellaneous Provisions and Amendments) Regulations 2021 and the Occupational Pension Schemes (Climate Change Governance and Reporting) (Amendment, Modification and Transitional Provision) Regulations 2022 (together, the "**Regulations**").

1. Governance

Governance activities are reported on at a whole-Scheme level.

Key obligation #1: The Trustee must set out how it maintains oversight of climate-related risks and opportunities which are relevant to the Scheme.

The Trustee has a well-established governance and oversight framework that addresses items related to ESG Factors. Investment beliefs are considered at the Trustee Board level. The Trustee believes considering ESG Factors will improve investment risk and return, helping it achieve its principal aim of meeting members' benefits, and will have a positive impact on the society in which our members live. The Trustee also considers climate change impacts on the covenant of the sponsoring employer.

The Trustee's approach to the oversight and management of climate-related risks and opportunities largely replicates the process for how it considers other risks and opportunities. In particular, the Trustee maintains oversight of climate-related risks and opportunities which are relevant to the Scheme by:

- allocating specific time and resources to identify, assess and manage ESG factors including climate-related risks and opportunities.
- undertaking training sessions from its investment, actuarial and covenant advisers addressing the considerations and implications of climate change and the Regulations.
- addressing climate-related matters at full Board meetings, held 5 times per year, via reports from sub-committees or when raised by advisers.
- including climate-related risks within the covenant monitoring reports received half-yearly.
- reviewing a sustainable investments report received annually from the investment consultant which reports on the integration and engagement activities in relation to ESG factors including climate change.
- maintaining a risk register with the assistance of the Audit & Risk Committee. This is reviewed at least annually and has been updated to include climate risk.
- engaging with advisers and challenging advice when necessary.

This framework ensures that the Trustee is regularly informed about climate-related risks and opportunities and is able to take steps to assess and manage them.

At this time the Trustee is not part of any climate-related industry initiatives but keeps this under review.

Governance (cont)

Key obligation #2: The Trustee must set out (1) the role of any person who undertakes Scheme governance activities, or who advises or assists the Trustee with Scheme governance activities (apart from its legal advisers) and (2) the processes put into place by which the Trustee satisfies itself that each of those entities is taking adequate steps to identify, assess and manage relevant climate-related risks and opportunities.

Other than the investment advisers (who are assessed annually), other advisers are assessed on a bi-annual basis. As part of this assessment process, the Trustee considers whether each adviser has adequate climate-related risk expertise and resources, to the extent necessary for that person's role.

The secretary to the Trustee liaises with the Trustee's advisers to ensure climate change matters are included within reports to the Trustee on a timely basis.

Investment Committee ("IC")
The IC is responsible for implementing the Scheme's investment policy and monitoring the performance of the Scheme's investments and its investment managers and advisers and their compliance with the Scheme's statement of investment principles ("SIP"). So far as is consistent with its fiduciary and legal responsibilities, the Trustee has delegated to the IC appropriate powers to enable the IC to fulfil these responsibilities. To ensure that the IC takes adequate steps to identify, assess and manage any climate-related risks and opportunities that are relevant to the governance activities it is undertaking, the Trustee has updated the IC's terms of reference to make explicit reference to consideration of ESG Factors, including climate-related risks and opportunities. The IC typically meets three times a year. The IC discusses climate-related risk and opportunity monitoring and management with the full Trustee Board at least annually. The IC receives quarterly reports from its investment managers and advisers which include details on ESG ratings and stewardship. This enables the IC to monitor the activities of each manager in this area, and to ask pertinent questions of each manager during annual conferences with each manager. The IC requires managers to adhere to the Stewardship Code and their approach to net zero targets and ESG is covered as part of the annual manager meetings. The IC has also engaged actively with all managers regarding the provision of reliable and comprehensive data for the purpose of satisfying the Trustee's obligations under the Regulations. The IC includes the approach to and engagement on ESG issues, including climate change, within its selection criteria for appointing new managers.

Governance (cont)

Investment advisers

The Trustee's investment advisers undertake climate change scenario analysis on behalf of the Trustee. They also provide support during the Trustee's 'investment manager day' to ensure investment managers account to the Trustee on a range of issues including climate change considerations.

To ensure that the investment advisers takes adequate steps to identify, assess and manage any climate-related risks and opportunities that are relevant to the governance activities they are undertaking, the Trustee sets objectives for them which include assisting the Trustee to assess, manage and measure climate change risks and opportunities. The investment advisers' performance against these objectives is assessed by the Trustee annually. To the extent possible, the Trustee will delegate the responsibility to take ESG Factors into account to its investment managers, and will periodically review these policies with the assistance of its investment adviser through reporting or direct engagement with its investment managers annually.

The Trustee asks that the investment advisers report on climate change stewardship as part of their quarterly investment report, and provide an annual report on Sustainable Investments.

Scheme Actuary

The Scheme Actuary provides actuarial advice and assistance to the Trustee. The Trustee expects the Scheme Actuary to consider climate change risks and opportunities as appropriate both in respect of the potential impact on mortality, and in respect of the financial return possible within the Scheme when providing the recommended assumptions for the triennial valuation process. The Trustee requested that the Scheme Actuary provide liability information for the climate change scenario analysis.

The Trustee involves the Scheme Actuary in Board discussions regarding climate change risks and opportunities and the Scheme Secretary updates the Scheme Actuary on any relevant matters discussed outside the main Board meeting to ensure these can be incorporated into the actuarial advice provided.

Covenant Advisers

The Trustee's covenant advisers advise the Trustee in respect of the strength of support the Scheme is able to rely on from the Company.

During 2021, the Trustee requested that climate specialists at its covenant advisers perform and report on a specific review of the climate-related risks and opportunities identified by the Company.

The significant risks are incorporated into the half-yearly covenant monitoring report provided for the Trustee to review. The Trustee receives an annual report from the covenant advisers on the activities and progress the Company is making towards their carbon-reduction targets.

The Covenant advisers have identified carbon pricing as one of the most significant risks for the covenant, and this will be monitored in future reporting and scenario analyses.

2. Strategy

Strategy activities are reported on at a whole-Scheme level.

Key obligation #3: The Trustee must set out its short-term, medium-term and long-term time horizons

The Trustee has determined the following time periods are appropriate considering the Scheme's liabilities and its obligations to pay benefits:

- short term: 5 years
- medium term: 5-15 years
- long term: more than 15 years.

Key obligation #4: The Trustee must identify climate-related risks and opportunities which it considers will have an effect over the short-term, medium-term and long-term on the Scheme's investment strategy and funding strategy.

The Trustee has determined that climate change could have a negative or a positive impact on the Scheme from the point of view of the returns available on its investments, its funding position, and the support made available by the sponsor.

The Trustee has identified the following climate-related risks and opportunities:

- **Physical risks.** This relates to the direct effects of climate change on the Scheme and its members. These risks include the effects of climate change-related weather and other natural events on the businesses of invested companies. The effect of changing temperatures is also expected to impact the mortality of Scheme members in the long-term. Although there are concentrations of membership in specific locations, these are considered to be at low risk of short-term natural events impacting mortality.
- **Transition risks and opportunities**. This relates to the risks and opportunities arising from efforts made to transition towards a net zero economy (both domestically and globally) in order to limit climate change. These risks and opportunities are generally expected to occur in the medium term, with some perhaps occurring in the short term. Risks arising could include regulatory or societal changes rendering parts of the business of invested companies worthless – for example, fossil fuels 'in the ground' which become economically unviable to extract due to a lack of a suitable market or due to regulations preventing their extraction. Opportunities include early investment in assets which are likely to benefit from climate change adaptations, such as green energy providers.

Strategy (cont)

The Trustee understands that it must assess the impact of the identified climate-related risks and opportunities on the Scheme's ....

Key obligation #5: Investment Strategy.

The Trustee understands that it must, on an ongoing basis, assess the impact of the climate-related risks and opportunities which it has identified on the Scheme's investment strategy. Given that:

- although specific events may have implications on individual investments in the short or medium term, it is expected that the number and significance of physical risks would be greater for the Scheme in the longer-term, particularly if no action is taken to address climate change;
- there is likely to be a greater impact on the higher return and risk focused assets such as the global equity holdings; and
- transition risks are generally expected to occur in the medium term, with some perhaps occurring in the short term,

the Trustee is actively looking to mitigate the risks and take advantage of the opportunities which occur in order to improve the likelihood of meeting the Trustee's investment objectives and carbon emissions targets. In particular, the Trustee will continue to use climate change as a key assessment factor when reviewing investment managers' performance. The Trustee transitioned its equity investments into a fund with a greater focus on ESG Factors during 2023. The Trustee's strategy is to promote carbon reduction across a range of sectors instead of switching investments to sectors that have lower emissions due to their nature rather than their efforts to reduce global carbon emissions.

Key obligation #6: Funding Strategy.

The Trustee understands that it must, on an ongoing basis, assess the impact of the climate-related risks and opportunities which it has identified on the Scheme's funding strategy. The Trustee considers that:

- the impacts on liabilities resulting from changes to mortality are all considered to be long-term in nature, however changes in actuarial assumptions regarding the anticipated future changes in mortality could affect the funding level of the Scheme in earlier time periods;
- as noted above, the number and significance of physical risks are expected to be greater for the Scheme in the longer term, particularly if no action is taken to address climate change; and
- transitional risks and opportunities are likely to affect the funding strategy from the perspective of investments and the company covenant.
- the Scheme's investment strategy is reasonably resilient to the shocks that may result from climate change considerations, but it must be adapted to ensure it is able to support the increased life expectancy that may come from actions to address climate change to ensure the funding strategy remains resilient.
- risks and opportunities relating to the employer covenant must be considered when assessing the impact on the funding strategy. The Trustee has primarily focused on risks and opportunities that would impact the covenant in the short to medium-term as the Scheme is well funded on a low-risk basis and reliance on the sponsor covenant is expected to be relatively low going forwards.

At this time, the Trustee has not changed its funding strategy as a result of the climate risks and opportunities identified however this will be kept under review.

Strategy (cont)

Key obligation #7: The Trustee understands that it must set out the most recent scenarios which it has analysed.

The Trustee has carried out climate change scenario analysis with its investment consultant and input from the Scheme Actuary for liability estimates. The aim of this analysis was to help the Trustee to quantify the potential effects of climate change on the Scheme's assets and liabilities. The Trustee investigated four scenarios selected to provide a range of potential outcomes:

- **Lowest Common Denominator –** This assumes a 'business as usual' scenario in which temperatures rise approximately 3.5°C relative to pre-industrial levels. Physical risks are expected to be high in the medium to long-term while transition risk is likely to be low over all time frames.
- **Inevitable Policy Response –** This assumes a delay in meaningful action but a rapid shift in policy in the mid/late 2020s. In this scenario we expect a temperature rise of approximately 2.0°C relative to pre-industrial levels. Physical risks are expected to be relatively low in the long-term following these actions while transition risks are likely to be high in the medium term.
- **Global Coordinated Action –** This assumes that policy makers agree on and immediately implement policies to reduce emissions in a globally co-ordinated manner. In this scenario we expect a temperature rise of approximately 2.0°C relative to pre- industrial levels. Both physical and transition risks are expected to be relatively low.
- **Climate Emergency –** This assumes an immediate, ambitious and coordinated response in which aggressive policy is pursued. In this scenario we expect a temperature rise of approximately 1.5°C relative to pre-industrial levels. Physical risks are expected to be very low while transition risks are likely to be moderate.

The Trustee will review the scenario modelling regularly and update it at the end of a three-year period or earlier if appropriate. The Trustee considers this to be a proportionate and balanced approach to scenario analysis. The last scenario analysis was completed in 2022. The Trustee agreed that it was not necessary to update the analysis during the year given there was no material change in the following factors:

- A material increase in availability of data.
- A significant/material change to the investment and/or funding strategy or some other material change in the Scheme's position.
- The availability of new or improved scenarios or modelling capabilities / events that might reasonably be thought to impact key assumptions within scenarios.
- A change in industry practice/trends on scenario analysis.

Strategy (cont)

Key obligation #8: The Trustee must set out (1) the potential impacts on the Scheme's assets and liabilities which it has identified in the scenarios analysed above and (2) if it has not been able to obtain data to identify potential impacts for all of the assets of the Scheme, why this is the case.

Rather than stating the impact on assets and liabilities over different timescales, asset and liability impacts have been modelled as an instantaneous shock, which assumes investors immediately price in their long-term expectations of the impacts from each scenario. In practice there is significant uncertainty of timing and it is rare for investors to price in the correct long-term expectations immediately as markets typically overact in the short-term; that said, the Trustee and their advisors feel the approach taken is practical and consistent with the type of analysis conducted as part of their wider risk assessment that helps to guide the investment strategy.

The assumed impact on key asset classes of the Scheme modelled as an instantaneous shock are as follows;

	Lowest Common Denominator	Inevitable Policy Response	Global Co-ordinated Action	Climate Emergency
Global Equities	-0.8%	-8.3%	-4.5%	-7.0%
Listed Infrastructure	-1.1%	-23.0%	-10.2%	-16.2%
Buy and Maintain Credit	0.0%	-0.5%	-0.2%	-0.4%
Secure Income Assets	-0.2%	4.8%	1.1%	6.6%

There is assumed to be no impact for liability-driven investments (LDI), insurance policies and cash.

Strategy (cont)

The impact on liabilities due to changes in mortality are derived from both the temperature effect but also how the assumed economic impact will then affect mortality. This helps explain why the impact of each scenario can be significantly different despite the underlying temperature impact being similar. In order to reach the final funding level impact, a weighted average of possible longevity outcomes was considered in line with the table below.

	Lowest Common Denominator	Inevitable Policy Response	Global Co-ordinated Action	Climate Emergency
Very High Improvement in Life Expectancy (3% per annum)	-	-	45%	-
High Improvement in Life Expectancy (2.25% per annum)	10%	40%	45%	50%
Low Improvement in Life Expectancy (0.75% per annum)	45%	30%	10%	40%
Substantial Deterioration in Life Expectancy (-1% per annum)	45%	30%	-	10%

Example; The Inevitable Policy Response and Global Coordinated Action scenarios have similar final temperature outcomes, however the route to get to this final position is quite different and therefore so are the range of possible mortality outcomes. The more disorderly transition under the Inevitable Policy Response means a higher likelihood of a negative impact on life expectancy.

Based on the asset and mortality assumptions above, the quantitative impact on asset and liability data on a gilts flat valuation basis as at 31 December 2021 are shown in the table below. Under three of the four scenarios the funding level would reduce. An improved funding level occurs under the "Lowest Common Denominator" scenario due to a higher likelihood of a reduction in life expectancy (which decreases the liability values).

Projection	Asset Shock (£m)	Liability Shock (£m)	Change in Deficit (£m)	New Funding Level	Change in Funding Level
Lowest Common Denominator	-2.7	-69	-66.4	103.6%	3.5%
Inevitable Policy Response	-35.5	-33	2.1	99.9%	-0.1%
Global Co-ordinated Action	-18.2	48	66.6	96.7%	-3.3%
Climate Emergency	-24.3	-9	15.7	99.2%	-0.8%

Strategy (cont)

As part of the scenario testing, the Trustee shared the results of its analysis with the covenant advisers. They have conducted a high-level qualitative assessment of the potential impact of these scenarios on the strength of the covenant. The Trustee noted that NSG operates in a carbon-intensive industry and therefore the Group's investment decisions would need to support a decarbonisation agenda.

Cardano, the Scheme's covenant adviser provided Sustainability analysis to the Trustee. Their assessment showed that risks under both an orderly transition (less than 2ºC warming) and failed transition (between 2-4ºC warming) are likely to be low to moderate over the short (2023) to medium-term (2025), and higher over the long-term (2035).

Key obligation #9: The Trustee must set out the resilience of the Scheme's investment strategy and funding strategy in the scenarios analysed above.

The Trustee is comfortable that the Scheme's investment strategy is reasonably resilient to the shocks that may result from climate-related risks identified in each of the four scenarios above as it has a diversified portfolio, is significantly de-risked, and has appropriate hedging in place.

Changes to life expectancy have the potential for a greater impact on the funding strategy and it may be necessary to review the investment strategy to ensure it is able to support the increased life expectancy that may come from actions to address climate change to ensure the funding strategy remains resilient. However, the Scheme is well funded on a low risk self-sufficiency basis.

3. Risk Management

Risk management activities are reported on at a whole-Scheme level.

Key obligation #10: The Trustee must describe the processes it has established for identifying, assessing and managing climate-related risks which are relevant to the Scheme

The Trustee has established the following processes for identifying, assessing and managing climate-related risks:

1. Utilising the Trustee's existing governance framework (set out in the "Governance" section of this report) so that external advisers can report and advise on identified risks and opportunities on an ongoing basis. For example,
    a. The Investment Committee receives updates from, and poses questions of, its investment managers, in order to understand their ongoing approach to stewardship matters (including those relating to climate change) on an annual basis. The Committee requests that actions are taken where appropriate and records these requests for future follow-up. The Trustee considers using stewardship in this way (1) helps the Trustee manage climate-related risks to the Scheme and (2) should reduce the impact on the Scheme of a disorderly transition or of a shock to the financial system from catastrophic climate change.
    b. The Trustee requests annual presentations from senior company representatives in key functions. Previously, the Trustee has received presentations from the Company's Climate Change Director, and on the Company's initiatives within the Solar Energy market. The Trustee looks to meet with the sponsor on an annual basis to discuss the sponsor's business plans and can use this opportunity to gain further information from the sponsor regarding its resilience to climate change, as required.
    c. The Trustee receives annual updates from its covenant advisers as to the ability of the sponsor to meet its obligations to the Scheme. These now include updates regarding the resilience of the sponsor to the challenges of climate change, in terms of physical and transition risks.

2. Regularly reviewing the risk register, which includes climate-related risks and opportunities. There is a robust process by which risks, including climate-related risks, are:
    a. identified by the Trustee and added to the register for monitoring;
    b. evaluated alongside any mitigating factors or controls;
    c. assessed and prioritised in terms of impact and likelihood; and
    d. assigned ownership.

3. Undertaking scenario analysis to identify and assess climate-related risks and using the results of that analysis to inform the Trustee's management actions. In particular, this has enabled the Trustee to identify, assess and manage the impact of physical and transition risks. The output of this analysis is provided in this report.

Risk Management (cont)

4. Assessing asset risks at an overall Scheme level or individual asset-class level as considered most appropriate.

5. Calculating climate change-related metrics in terms of its portfolio, as well as setting targets, to provide measures by which to determine the climate change impact on investment, funding and other strategic decisions such as the decision to switch the Scheme's equity investment to an adaptive cap fund with an ESG overlay.

Key obligation #11: The Trustee must describe how the processes described above are integrated into its overall risk management of the Scheme.

The Trustee's processes for identifying, assessing and managing climate-related risks largely replicate its processes for how it considers other risks and opportunities, and as such they are integrated into the Trustee's overall risk management of the Scheme through the existing governance and risk-management framework.

The Trustee does view climate change as a risk which cuts across most of the other risks faced by the Scheme, in that those risks may all be changed, mitigated or worsened by the effects of climate change (physical risks) and/or actions to address climate change (transition risks). The Trustee has used the additional governance processes introduced by the Regulations (e.g. conducting scenario analysis, calculating metrics and setting targets) to help it better identify, assess and manage climate-related risks, in addition to its existing governance and risk-management framework.

4. Metrics

Metrics and targets are reported on at a whole-Scheme level.

Key obligation #12: The Trustee must describe the metrics it has calculated.

The Trustee has calculated a set of climate change metrics and will monitor the progress against these metrics annually.

Requirement	PSS agreed metric
1. A metric focussing on actual/absolute emissions	Total Carbon Emissions (tCO2e)
2. A metric measuring carbon intensity	Weighted Average Carbon Intensity (tCO2e/$m revenue)
3. An alternative climate metric	Data quality for scopes 1+2 absolute emissions (% reported vs % proxied vs % excluded)
4. A metric covering portfolio alignment	Implied temperature increase

Total Carbon Emissions – This is an 'absolute emissions' metric which gives the total greenhouse gas emissions attributable to the Scheme's assets. It is measured using a CO2 equivalent (CO2e). The metric shows the tonnes of CO2e per £1million assets.

Weighted Average Carbon intensity (WACI) - the carbon intensity figures for each holding in the portfolio are averaged using the portfolio weights. Carbon intensity is calculated as the volume of carbon emissions per million dollars of revenue, adjusting for company size to provide a measurement of the efficiency of output. This metric can be applied across all asset classes and provides a comparison over time. The data coverage for WACI is considered higher at the current time than the data coverage for Carbon Footprint, which is why the Trustee has chosen this metric. The Trustee also believes this metric will demonstrate where portfolio action has been taken.

Data Quality – this measure aims to represent the proportion of the portfolio for which the Trustee has high quality data, and is a key area in which the Trustee is striving for improvement over the coming years. The way this metric is measured was changed over the year from % manager data vs % provided by investment consultant, to investment managers' 'coverage' (data reported and estimated). Investment managers typically provide the following breakdown: % of data directly reported for the underlying assets vs the % of data estimated vs the % of data that has been excluded for scopes 1 and 2 absolute emissions. This change reflects the improvement in the TCFD reporting provided by the Scheme's investment managers.

Implied temperature rise – this is a forward-looking metric, expressed in degrees Celsius, designed to show the temperature alignment of companies, portfolios and funds with global temperature goals.

Metrics

These metrics may change over time to reflect industry best practice and improvements in data provision.

Each metric calculated uses Scope 1, Scope 2 and Scope 3 emissions. The below table summarises the three levels of scope which should be used to measure the varying levels of carbon exposure. We note that in line with requirements, Scope 3 emissions have been included in this year's reporting.

Scope
Scope 1: Direct emissions from a company's owned or controlled sources
Scope 2: Indirect emissions from the generation of purchased energy
Scope 3: All other indirect emissions, including those of suppliers and customers

There is not a single industry standard methodology for calculating these metrics and the methods may evolve. Insight is the manager with the largest holding of the Scheme's assets. Insight manage the LDI Portfolio comprising predominantly of government gilts. Their method for providing emissions data involves taking the UK country-wide emissions and allocating a proportion to the Scheme's portfolio based on its gilt holding.

Key obligation #13: The Trustee understands that it must use the metrics it has calculated to identify and assess the climate-related risks and opportunities which are relevant to the Scheme.

On receiving the baseline data and subsequent annual metrics the Trustee has considered its investment classes and investment managers with the support of the investment consultants. This process has provoked discussion ultimately enhancing the Trustee's understanding of the relative climate-related risks and opportunities within its portfolio and continues to influence the Trustee's consideration of climate change risks and opportunities and future investment strategy.

Metrics

Key obligation #14: The Trustee understands that if it has not been able to obtain data to calculate the metrics for all of the assets of the Scheme, it must describe why this is the case.

It is widely acknowledged that the availability of quality climate change data is in its infancy. The legal requirements are relatively new, and the investment industry has not yet built robust reporting processes.

The investment consultant collected emissions for scope 1, 2 and 3 for all of the Scheme's assets which is an improvement from last year's disclosure, although note that some data for the Scheme's illiquid assets is lagged as at 31 December 2022.

The Trustee uses best endeavours to make as full a disclosure as it can, subject to overriding constraints of reasonable time and cost for doing so. The Trustee is actively working with its investment managers to continue to improve the quality of the data supplied for these purposes over time.

No data has been treated as unobtainable. For the secure income alternative assets, where data was not available, the Trustee has used lagged data to populate the gaps. These figures are highlighted on the following pages.

5. Targets

Key obligation #15: The Trustee must describe the target it has set and the performance of the Scheme against that target to date.

The Trustee has set a long-term target for the Scheme to reduce Total Carbon Emission (Scope 1 and 2) to net zero by 2050 and a medium-term target of reducing these emissions by 30% by 2030. Performance will be measured annually when the Trustee calculates its Total Carbon Emissions. Scope 3 emissions have been reported for the first time this year, and are not currently included in the targets, but the Trustee will keep this decision under review.

In 2022, the carbon emissions for the Scheme reduced by 43% from the baseline of 209,527 tCO2e in December 2021.

There were two main reasons for this.

1. The Trustee entered into an additional buy-in insurance transaction with PIC during the year. It funded this from its LDI portfolio, which is predominantly government gilts which uses UK-wide emissions for the metric. PIC has a more diversified portfolio and reports a lower emissions metric.
   Therefore this reduction in emissions is due to a risk-management transaction, rather than a specific carbon reduction effort.

2. The Trustee received data in respect of 99.3% of its assets in 2022 versus 88.5% in the baseline 2021 figure. Emissions across equities and listed infrastructure reduced by 52,779 tCO2e (63%), which the Trustee believed may be more to do with the amount and quality of data available rather than specific carbon reduction efforts within these funds in the year.

The Trustee believed that these metrics presented a misleading picture of the scheme's progress. It has therefore decided to make the following changes:

1. Emissions associated with LDI, the buy-ins, the longevity swap, cash and other residual balances have been excluded from the target reporting. The Trustee does not believe that it is appropriate to include these assets in a target against which it is to be measured due to the estimated nature of these emissions and the limited scope for the Trustee or investment manager to influence the figures. This is consistent with the approach taken by many other schemes.

2. The baseline date has been revised to 31 December 2022. While it is acknowledged that there are likely to be ongoing improvements to the quality of data, this change removes reliance on the poor data available in the first year.

The new baseline emissions as at December 2022 are 39,686 tCO2e. During the year there has been a 11% reduction to 35,425 tCO2e as at 31 December 2023. The key reasons for the reduction are a reduction in the emissions from equity funds (from 13,407 tCO2e to 10,413 tCO2e), the disposal of reinsurance funds (with estimated emissions of 959 tCO2e in 2022) and the better analysis of the secure income alternatives, whereby most of their emissions are now classified as scope 3, leading to the scope 1 and 2 emissions reducing from 1,129 tCO2e to 13 tCO2e. These improvements were offset by an increase in emissions relating to the listed infrastructure fund from 16,997 tCO2e to 18,057 tCO2e.

The Trustee intends to achieve its carbon emission targets through active engagement with investment managers to promote carbon reduction across all business sectors it invests in. It intends to prioritise the spirit of carbon reduction over the achievement of targets, as demonstrated by the transfer of the regional equity funds to the MSCI ACWI Adaptive Capped ESG Index Fund. This fund was chosen as, in addition to certain ESG exclusions, it excludes companies which derive ten percent or more of their revenues from certain thermal coal related activities.

The adaptive cap limitation applied to the holding of each individual company within the index reduces holdings in certain tech and finance companies, which have a high market capitalisation. These companies by their nature tend to have lower carbon emissions, and the effect of their capping on the tCO2e figures was expected to outweigh the effect of the thermal coal exclusions leading to an increase in the overall tCO2e figure for the Scheme. The Trustee decided that notwithstanding the expected impact on carbon metrics, this investment was a positive move from a climate perspective, and in fact the overall emissions for equities have fallen (from 13,407 tCO2e to 10,413 tCO2e) over the year despite the move.

The Trustee meets with each of their investment managers on at least an annual basis where they are each expected to confirm their approach to climate reporting and how they expect to achieve their carbon reduction targets. The Trustee's investment consultant also engages with the managers, both on the Scheme's behalf when collecting climate data and as part of their general research discussions, to stress the importance of accurate and timely reporting of emissions data.

Climate Metrics – 31 December 2022 (Revised Baseline)

We set out below the agreed upon metrics for the Scheme as at 31 December 2022.

Manager	Fund	% of assets	Absolute Emissions (tCo2e)	WACI (tCo2e/$m revenue)	Implied Temperature Increase
SSgA	UK Equity	1.4	1,715	167.2	3.2
	Europe ex UK Equity	1.9	2,134	150.1	2.4
	North America Equity	4.1	2,262	191.9	2.8
LGIM	Asia Pacific ex Japan Equity	0.7	1,307	285.7	2.9
	Japan Equity	0.3	375	90.9	2.9
	Japan Equity (GBP Hedged)	0.3	360	88.6	2.9
	Emerging Markets Equity	1.7	5,254	459.9	3.5
	Listed Infrastructure	5.3	16,997	1,103.6	3.0
Nephila	Iron Catastrophe Fund (Reinsurance)	0.7	959	555.0	2.5
CBRE	Property	0.0	1	2.0	1.4
AXA	Long Term Credit Fund	16.7	7,193	76.9	2.1
Alpha Real	Index Linked Income Fund (as at	3.5	522	149	1.9
Aviva	Lime Property Fund (as at 31/12/21)	3.0	607	809.0	1.9
Insight	LDI	32.7	61,129	124.8	1.8
PIC	Buy-in Policy	22.9	17,748	181.9	2.1
Overall Scheme		**100.0**	**118,563**	**217.2**	**2.1**
Overall Scheme (excluding LDI and Buy-ins)		**39.9**	**39,686**	**323.4**	**2.4**

Absolute Emissions Data Quality

99.3%

% of assets is stated excluding the value of the longevity swap, longevity collateral and cash. Alpha Real and Aviva did not provide updated data in time for this report and as such values are given as at 31 December 2021. WTW estimates in red as at 31 December 2022 based on WTW's SI Tool. Data quality is based on the % of total assets where the asset manager provided absolute emissions data. Totals may not sum due to rounding.

Climate Metrics – 31 December 2023

We set out below the agreed upon metrics for the Scheme as at 31 December 2023. This has been constructed using data provided by the Scheme's asset managers only.

Manager	Fund	% of assets	Absolute Emissions Scopes 1+2 (tCo2e)	Absolute Emissions Scope 3 (tCo2e)	WACI Scopes 1+2 (tCo2e/$m revenue)	WACI Scope 3 (tCo2e/$m revenue)	Implied Temperature Increase
LGIM	Adaptive Cap with ESG Equity	11.5%	10,413	98,109	136.1	1,211.8	2.9
	Infrastructure Equity	5.6%	18,057	35,618	1,043.1	2,454.4	2.8
AXA	Long Term Credit Fund	17.9%	6,942	9,266	73.0	94.0	1.9
Alpha Real	Index Linked Income Fund (L)	2.9%	0	489	0.0	312.0	3.5
Aviva	Lime Property Fund (L)	2.8%	13	582	6.4	287.2	3.9
Insight	LDI (funded gilts only)	36.0%	65,965	n/a	112.2	n/a	1.8
PIC	Buy-in Policies	23.1%	17,242	35,860	171.0	546.0	1.9
Overall Scheme		**100.0%**	**118,632**	**179,923**	**167.7**	**684.6**	**2.1**
Overall Scheme (excluding LDI and Buy-in)		**40.8%**	**35,425**	**144,064**	**214.7**	**763.2**	**2.6**
Previous year comparison:							
Overall Scheme 31 December 2022		*100.0%*	*118,563*	*n/a*	*217.2*	*n/a*	*2.1*
Overall Scheme (exc LDI and Buy-in) 31 December 2022		*39.9%*	*39,686*	*n/a*	*323.4*	*n/a*	*2.4*

Absolute Emissions Scope 1+2 Data Quality: 84%

Absolute Emissions Scope 1+2 Data Quality (excluding LDI and Buy-in): 87%

% of assets is stated excluding the value of the longevity swap, longevity collateral, cash and residual assets. Alpha Real and Aviva data is as at 31 December 2022. Data quality has been updated to reflect the % of data directly reported for the underlying assets vs the % of data estimated vs the % of data that has been excluded for scopes 1 and 2 absolute emissions. Totals may not sum due to rounding.

Data quality

		Data quality - % reported	Data quality - % proxied	Data quality - % excluded
LGIM	Adaptive Cap with ESG Equity	91%	6%	3%
LGIM	Infrastructure Equity	94%	2%	3%
AXA	Long Term Credit Fund	81%	0%	19%
Alpha Real	Index Linked Income Fund (L)	68%	0%	32%
Aviva	Lime Property Fund (L)	93%	0%	7%
Insight	LDI (funded gilts only)	0%	100%	0%
PIC	Buy-in Policies	51%	4%	45%
Overall Scheme		**47%**	**38%**	**16%**
Overall Scheme (excluding LDI and Buy-in)		**85%**	**2%**	**13%**

PSS Carbon Target Framework

Below, we illustrate the 31 December 2023 total emissions for the Scheme against the updated carbon target framework. From a baseline of 39,686 tCo2e as at 31 December 2022, the Scheme's emissions have reduced by 11%.