



# TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES REPORT

PILKINGTON BROTHERS SUPERANNUATION TRUSTEE LIMITED  
JULY 2023

## 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.

Recent legislative changes have sought to improve and increase reporting of climate-related risks and opportunities amongst pension schemes – 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**”).

This report outlines how the Trustee meets the requirements of those Regulations. In particular, 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, as well as an interim target as described in the member summary and detailed in the report. The Trustee will explain where progress deviates from the targets set. 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. This has been a consideration in the Trustee's decision-making in respect of its future equity investments during the year.

This is the first year producing the report and the metrics have been affected by improvements in data quality. The Trustee will consider the implications for its targets and benchmark over the next year to ensure ongoing progress towards its overall net zero target.

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

Signed on 28 June 2023

## Member Summary

The Scheme is now subject to the Regulations, which means the Trustee is required to take certain actions in relation to climate-related risks and opportunities which are relevant to the Scheme and make disclosures about those actions in line with the Regulations. The aim of the Regulations is to improve and increase reporting of climate-related risks and opportunities amongst pension schemes.

The report's main findings are:

- **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.

- **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 has received training and worked with its advisers in understanding the Scheme's exposure to climate risks and put in place a plan to achieve net zero greenhouse gas emissions by 2050.**

## Member Summary (cont)

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.

- **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.

- **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.

- **Targets:**

The Trustee has set out a long term target of reducing the Scheme's Total Carbon Emissions to net zero by 2050 and a medium-term target of reducing these emissions by 30% by 2030.

The Scheme set its baseline at 31 December 2021 and measured absolute emissions of 209,527 tCO<sub>2</sub>e. At 31 December 2022, the date of this report, absolute emissions were 118,563 tCO<sub>2</sub>e, a fall of 43%. However, a significant part of this change was due to an increase in the amount and quality of data available. During the year the Trustee invested in a second insurance buy-in with PIC using assets from the LDI portfolio with Insight. The net reduction in Absolute Emissions of the buy-in and LDI combined was 32,439 tCO<sub>2</sub>e.

## 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 updated the IC's terms of reference during the current Scheme year to make explicit reference to consideration of ESG Factors, including climate-related risks and opportunities. The IC typically meets three times a year. The Trustee requires the IC to feed back to it at the first Board meeting following the committee meeting and report on climate-related risk and opportunity monitoring and management. Discussions are held with the full Trustee Board regarding these risks 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 face-to-face updates, which are scheduled annually with each manager. The IC requires managers to adhere to the Stewardship Code and is in active discussions with them regarding net zero targets. 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 approach to and engagement on ESG issues, including climate change, within its selection criteria for appointing new managers.

## Governance (cont)

<b>Investment advisers</b>	<b>Scheme Actuary</b>	<b>Covenant Advisers</b>
<p>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.</p> <p>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.</p> <p>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</p>	<p>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.</p> <p>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.</p>	<p>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.</p> <p>The Trustee requested its covenant advisers perform and report on a specific review of the climate-related risks and opportunities identified by the Company.</p> <p>The significant risks were also 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.</p>



## 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 and has taken the decision to transition its equity investments into a fund with a greater focus on ESG Factors in 2023. The Trustee's strategy is to promote carbon reduction across a range of sectors rather than 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.

## Strategy (cont)

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.

### **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.

## 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 overreact 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) 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 2°C warming) and failed transition (between 2-4°C 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.

## 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. In the last two years, 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. For example, during the past year, the Trustee received information from its equity investment manager regarding the carbon intensity of the portfolio in question. This information was used to inform 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.



## Metrics and targets

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	Pilkington agreed metric
1. A metric focussing on actual/absolute emissions	Total Carbon Emissions (tCO <sub>2</sub> e)
2. A metric measuring carbon intensity	Weighted Average Carbon Intensity (tCO <sub>2</sub> e/\$m revenue)
3. An alternative climate metric	Data quality (% manager data vs % proxied by advisor)
4. A metric covering portfolio alignment (under consultation)	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 CO<sub>2</sub> equivalent (CO<sub>2</sub>e). The metric shows the tonnes of CO<sub>2</sub>e 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.

**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 and targets (cont)

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

Each metric calculated uses Scope 1 and Scope 2 emissions. The below table summarises the 3 levels of scope which can be used to measure the varying levels of carbon exposure.

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 the Trustee scrutinised its investment classes and investment managers with the support of the investment consultants. The initial data provoked substantial discussion ultimately enhancing the Trustee's understanding of the relative climate-related risks and opportunities within its portfolio. This has, and will continue to, influence the Trustee's consideration of climate change risks and opportunities and future investment strategy.

## Metrics and targets (cont)

**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.

In this report, data quality is assessed on the *availability* of carbon emissions data provided by investment managers. The industry is assessing how to report consistently on the underlying quality of the emissions data.

Scope 1 and 2 are more commonly available and reported against by underlying investee companies. Due to this, the investment consultants have focussed on collecting and reporting scope 1 and 2 emissions wherever possible. Over time, as disclosure improves, this will be widened to include scope 3. The proportion of assets for which Scope 1 and 2 emissions are available is 99.3% increased from 88.5% in 2021, and the proportion for which there is no data is 0%.

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 improve the quality of the data supplied for these purposes over time.

No data has been treated as unobtainable. Where data was not available, the Trustee has obtained estimates from its investment consultant to populate any gaps in data obtained from investment managers based on data available for similar funds. These estimates are highlighted on the following pages. The Trustee will consider the use of the estimates in the baseline data when considering any change to future 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 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.

As shown on the graph on page 23, the carbon emissions for the Scheme have reduced by 43% from the baseline of 209,527 tCO<sub>2</sub>e in December 2021 to 118,563 tCO<sub>2</sub>e in December 2022.

There are 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. As mentioned in #12, the LDI portfolio 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. The Trustee will reflect on the impact of this change for its targets over the next year. One option may be to exclude LDI and buy-in policies from the metrics.
2. The Trustee has received data in respect of 99.3% of its assets versus 88.5% in the baseline. Emissions across equities and listed infrastructure have reduced by 52,779 tCO<sub>2</sub>e (63%). The Trustee believes this 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 intends to achieve its carbon emission targets through active engagement with investment managers to promote carbon reduction across all business sectors it invests in. Since the year end, the Trustee has transferred its equities to an index that incorporates ESG considerations.

## Climate Metrics Baseline – 31 December 2021

We set out below the agreed upon metrics for the Scheme as at 31 December 2021. This has been constructed using a mixture of manager data and WTW estimates, with the values in red corresponding to WTW's estimates.

			Climate Metrics 31 December 2021		
Manager	Fund	% of assets	Absolute Emissions (tCo2e)	WACI (tCo2e/\$m revenue)	Implied Temperature Increase
SSgA	UK Equity	1.4	4,062	200.0	4.8°
	Europe ex UK Equity	2.0	5,244	184.1	2.3°
	North America Equity	4.6	4,986	166.8	2.3°
LGIM	Asia Pacific ex Japan Equity	0.9	3,528	372.2	4.2°
	Japan Equity	0.4	1,817	89.7	3.3°
	Japan Equity (GBP Hedged)	0.4	1,886	89.2	3.3°
	Emerging Markets Equity	1.8	11,488	395.0	4.3°
	Listed Infrastructure	5.8	50,172	2,331.1	4.2°
Nephila	Iron Catastrophe Fund	2.1	201	1.0	1.5°
CBRE	Property	0.1	6	49.0	3.4°
AXA	Long Term Credit Fund	16.1	13,691	111.0	1.9°
Alpha Real	Index Linked Income Fund	2.3	522	114.0	3.0°
Aviva	Lime Property Fund	2.2	607	809.0	3.0°
Insight	LDI	47.8	100,843	124.8	1.8°
PIC	Buy-in Policy	11.9	10,473	204.0	2.4°
<b>Overall Scheme</b>		<b>100.0</b>	<b>209,527</b>	<b>282.8</b>	<b>2.2°</b>

Absolute Emissions Data Quality  
88.5%

PIC data as at 30 October 2021, other asset manager data as at 31 December 2021. WTW estimates in red as at 31 December 2021 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. There is no specific uncertainty regarding any data provided however there is a general expectation that data quality will improve over time.

## Climate Metrics – 31 December 2022

We set out below the agreed upon metrics for the Scheme as at 31 December 2022. This has been constructed using a mixture of manager data and WTW estimates, with the values in red corresponding to WTW's estimates.

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
<b>Overall Scheme</b>		<b>100.0</b>	<b>118,563</b>	<b>217.2</b>	<b>2.1</b>
<b>Overall Scheme (excluding LDI and Buy-ins)</b>		<b>39.9</b>	<b>39,686</b>	<b>323.4</b>	<b>2.4</b>

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.

## Pilkington Carbon Target Framework

Below, we illustrate the 31 December 2022 total emissions for the Scheme against the agreed carbon target framework. From a baseline of 209,527 tCO<sub>2</sub>e as at 31 December 2021, the Scheme's emissions have fallen significantly. The current trajectory suggests the Scheme is on track to achieve net zero carbon emissions by 2050 and has already surpassed its interim target of a 30% reduction by 2030. This has predominantly been driven by a significant increase in the amount and quality of data reported by asset managers.

