ZF UK Pension Plan – Disclosures in respect of TCFD for the Scheme year ending 31 March 2023

Introduction

This report sets out the approach of the Trustee of the ZF UK Pension Plan (“the Plan”) with regard to assessing, monitoring and mitigating climate-related risks in the context of the Trustee’ broader regulatory and fiduciary responsibilities to their members.

We believe that climate change is a systemic risk and an immediate concern. In order to ensure a sustainable future and to safeguard economic growth, we believe that concerted global action is required to tackle the climate crisis. The Plan is a long-term investor and we believe that improved transparency on climate-related matters will lead to improved investment decisions which in turn will improve member outcomes. This has created focus and an imperative to act.

Therefore, we are supportive of any initiative that helps improve disclosures and enhances transparency. The Taskforce on Climate-related Financial Disclosures (“TCFD”) framework provides a structure for companies, asset managers, asset owners, banks and insurance companies to outline the steps they have undertaken to identify, manage and monitor climate-related risks and opportunities. The framework is designed to increase comparability but allow sufficient flexibility to communicate the specific approach adopted by each entity. As such, we support the TCFD recommendations. From 1 October 2021, pension schemes above a certain size have been required to comply with the TCFD requirements for pension schemes. These requirements applied to the Plan, as a scheme of over £1bn, from 1 October 2022. This report is therefore the first TCFD Report produced for the Plan in line with these requirements.

Background

The Taskforce on Climate-related Financial Disclosures (TCFD) was commissioned in 2015 by Mark Carney in his remit as Chair of the Financial Stability Board. The TCFD was asked to develop voluntary, consistent climate-related financial disclosures that would be useful in understanding material climate-related risks. In 2017 the TCFD released its recommendations for improved transparency by companies, asset managers, asset owners, banks, and insurance companies with respect to how climate-related risks and opportunities are being managed. Guidance was also released to support all organisations in developing disclosures consistent with the recommendations, with supplemental guidance released for specific sectors and industries, including asset owners. For the pensions industry, relevant guidance has been produced by the Pensions Climate Risk Industry Group (PCRIG).

The Task Force’s report establishes recommendations for disclosing clear, comparable and consistent information about the risks and opportunities presented by climate change. Their widespread adoption will ensure that the effects of climate change become routinely considered in business and investment decisions. Adoption of these recommendations will also help better demonstrate responsibility and foresight in their consideration of climate issues, leading to smarter, more efficient allocation of capital, and helping to smooth the transition to a more sustainable, low carbon economy.

The Task Force divided climate-related risks into two major categories: risks related to the transition to a lower-carbon economy; and risks related to the physical impacts of climate change. The TCFD report noted that climate-related risks and the expected transition to a lower carbon economy affect most economic sectors and industries, however, opportunities will also be created for organisations focused on climate change mitigation and adaptation solutions. The report also highlights the difficulty in estimating the exact timing and severity of the physical effects of climate change.

The Task Force structured its recommendations around four thematic areas that represent core elements of how organisations operate: governance, strategy; risk management; and metrics and targets. The four overarching recommendations are supported by recommended disclosures that build out the framework with information that will help investors/stakeholders understand how reporting organisations assess climate-related risks and opportunities. The disclosures are designed to make TCFD-aligned disclosures comparable, but with sufficient flexibility to account for local circumstances.

This report provides details of our approach against the four pillars:

- **Governance**: The Plan's governance and oversight around climate-related risks and opportunities.
- **Strategy**: The actual and potential impacts of climate-related risks and opportunities on the Plan's strategy and financial planning.
- **Risk management**: The processes used by the Plan to identify, assess, and manage climate-related risks.
- **Metrics and targets**: The metrics and targets used to assess and manage relevant climate-related risks and opportunities.

As well as developing our own reporting for TCFD, we expect our underlying investment managers to be aligned with TCFD. We will continue to monitor this through our regular reporting and ongoing dialogue with the Plan's managers.

Italicised words and phrases throughout the report can be found within the Glossary, which provides further explanation and detail.

Report Summary

We have set out a summary of this report and the key highlights across each of the four pillars of TCFD below.

- **Governance**
    - The Trustee has a Responsible Investment policy in place which set out the Trustee's key RI beliefs and the approach which will be taken within the Plan management to implement those beliefs.
    - We consider climate change to be a key risk to the Plan and so have embedded climate-related issues across our strategic decision-making and other governance processes.
    - There are a number of parties that feed into our approach to climate change by way of advice, supporting implementation, training and other means. However, we retain overall responsibility for the approach that we take.
- **Strategy:**
    - Over recent years the Trustee has made considerable progress on its engagement activities with managers to understand processes for taking account of climate-related risks.
    - Work has also been carried out to understand risks within overall strategy.
    - Key risks identified relate to the asset risks resulting from the physical effects of climate change as well as the transition risks where severe and disruptive policies are introduced by governments to tackle climate change.
    - We have undertaken work in order to understand risks within the Plan's overall strategy to climate change. We also have embedded consideration of these risks with the Plan's overall planning and strategy.
    - We have undertaken scenario analysis of the Plan's assets and liabilities in order to test the resilience of the strategy to various climate scenarios. This analysis suggested that, across all scenarios, the Plan is resilient to the risks posed by climate change.
- **Risk management:**
    - We have a clear approach to the management of risks posed to the Plan, which includes climate-related risks.
    - We have identified Environmental, Social and Governance issues (and, within this, climate-related risks) as a risk to the Plan and have clearly identified controls and actions in place to manage and monitor these risks.
    - We have embedded the consideration of climate-related risks into our broader risk management approach and consider climate risks as part of all we do, including investment strategy reviews and ongoing engagement with managers.
- **Metrics and targets:**
    - We have selected a number of climate metrics by which to measure the Plan's position and exposure to climate risks and opportunities.
    - This is the first Plan year for which we have reported these metrics, and we will receive reporting on these metrics on an annual basis.
    - Currently, a proportion of the Plan's holdings are unable to be measured across the different metrics. This is in part due to the nature of some investments and the difficulties in measuring climate metrics across these types of investments. As part of ongoing dialogue with managers, we will strive to improve this over time to ensure we receive a fuller picture of the Plan's position.

- We have set targets for each of the mandates in relation to data quality of data. We will engage with manager to improve the coverage and reliability of data over time.

- **Next steps:**
    - We will regularly review our approach to climate change and thus the policies and processes we have in place to embed climate-related issues across the Plan's management.
    - Consider whether the Plan's climate scenario analysis needs to be refreshed on an annual basis.
    - Consider the impact of climate risks and opportunities in more detail as part of the next Actuarial Valuation.
    - Further develop our risk management approach to climate-related risks and opportunities and include further detail on specific climate-related risks within our risk register.
    - Undertake annual climate metric reporting against the chosen metrics for the Plan and use this to both monitor performance against our targets as well as to aid in our investment decision-making as appropriate.

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We will provide an update on these steps within our next report. The following pages provide detail on our climate risk disclosures for the Plan year ending 31 March 2023.

Governance

Disclosure 1: Describe the board's oversight of climate-related risks and opportunities.
The Trustee agreed a set of Responsible Investment beliefs in February 2022. These beliefs are documented in the Plan's Responsible Investment Policy which was agreed by the Trustee in September 2022.

The Trustees plan to review these beliefs at a high-level on an annual basis, with a more in-depth review being undertaken on a three-year basis.

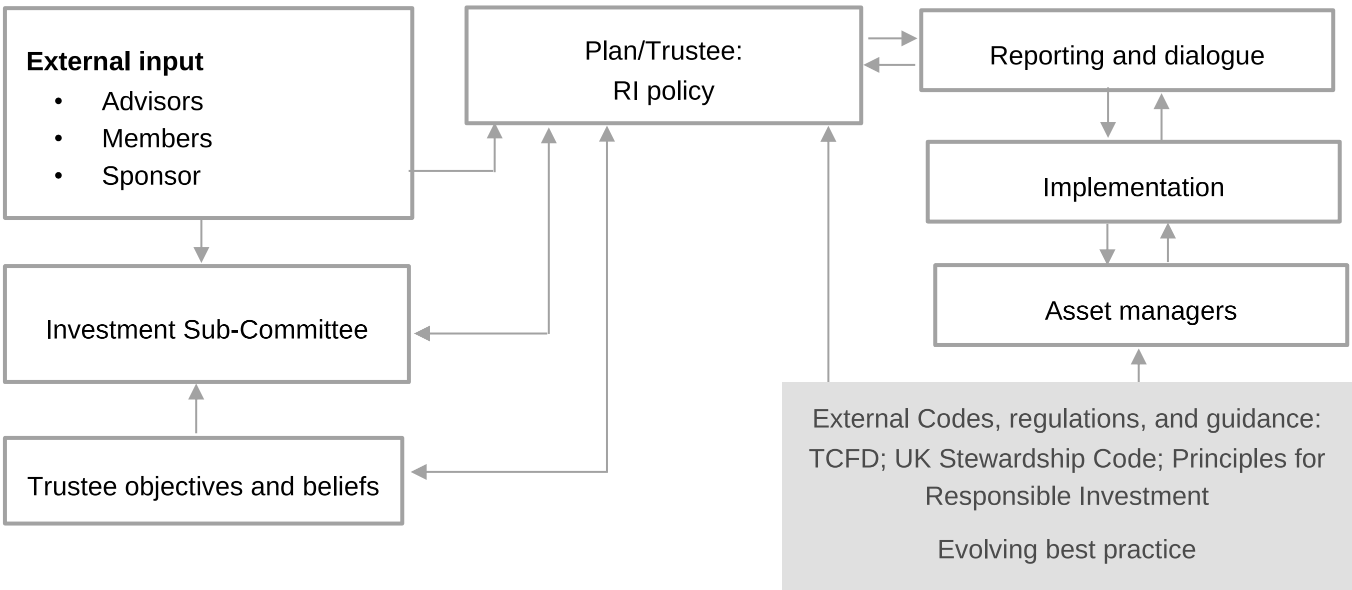
The Plan's Responsible Investment (RI) Policy sets out the Trustee's key RI beliefs and the approach which will be taken within the Plan management to implement those beliefs. The Trustee has overall responsibility for ensuring that RI considerations, including climate change, are taken into account, where relevant, in all areas of the Plan's management and retains overall responsibility for the setting and implementation of the Plan's RI Policy. This includes responsibility for ensuring all regulatory requirements are met and that the Plan's governance processes are sufficient to ensure the proper management of all ESG-related risks.

The Scheme's RI policy considers the whole ESG spectrum. However, this includes climate change and the Trustee gives climate change due consideration given its financial materiality. Within this report, we refer to climate change, however relevant sections in the RI policy may instead refer to ESG more broadly.

In fulfilling our duties, we delegate certain responsibilities to other parties.

The parties with a role in the Scheme's management, how they incorporate the identification, assessment and management of climate-related risks and opportunities into that role and the methods the Trustee uses to assess each party is set out in this document and in the section below.

There are a number of responsibilities delegated to the investment managers of the Plan's assets. These asset managers are monitored on an ongoing basis by the Trustee with a specific focus on climate-related issues undertaken by the Investment Committee. The Trustee's investment consultant assists with the ongoing monitoring of the investment managers, including rating the approach of the managers with respect to climate-related issues. Further details on these responsibilities are also included under Governance disclosure 2.



Disclosure 2: Describe management's role in assessing and managing climate-related risks and opportunities.

There are a number of parties with a role in the Plan's management and how they incorporate the identification, assessment and management of responsible investment, and in particular climate-related risks and opportunities. These parties and their role in the Plan's overall approach to climate-related issues, including the assessment and management of climate risks and opportunities, is set out below alongside with the methods we use to assess each party.

Additionally, the Trustee maintains ongoing dialogue with the Plan Sponsor, including updates provided by a Sponsor representative at each quarterly meeting. This dialogue includes the Sponsor's approach to climate-related issues to ensure those relevant to the Plan are considered where appropriate and ensure synergy between the Plan and Sponsor's approach to climate-related issues.

Investment Committee (IC)

The Investment Committee is a committee of the Trustee Board and employer representatives. The Trustee delegates implementation of its overall investment strategy to the IC, which will include implementation of this RI Policy.

The IC is expected to incorporate RI considerations into its management of the Plan's assets, identifying and managing ESG-related risks and opportunities in all areas including asset allocation decisions, manager appointments and its monitoring of the Plan's current investment managers. The IC relies on information provided by the Plan's investment advisers, actuarial advisers and investment managers in making these assessments.

The Trustee has oversight of the IC's activities and is responsible for appointing members of the IC and the Committee Chair. In practice, decisions are expected to be taken by the Trustee during the IC meetings.

With respect to Responsible Investment, the key aims of the IC are to identify and carry out all key tasks required to enable the Trustee to:

- Act in line with the beliefs and principles set out in the Trustee's agreed RI policy.
- Continue to progress towards becoming more active in all areas of RI.
- Meet the requirements of the new climate-related regulations that came into force from October 2022.
- The IC have agreed a Terms of Reference (ToR) which sets out the composition and key responsibilities of the IC. The Terms of Reference will be updated to reflect the Responsible Investment activities owned and undertaken by the IC.

Pensions Manager

The Pensions Manager supports the Trustee and Investment Committee in the arranging of meetings and taking forward agreed actions between meetings.

Investment Advisers

The Plan's investment advisers, Isio, are responsible for assisting the Trustee and the IC to ensure climate-related risks and opportunities are embedded into all investment decisions. They provide advice and training to the Trustee and the IC regarding regulatory requirements and are expected to incorporate RI considerations into any advice regarding strategy changes or manager appointments.

The investment advisers will also assist by producing the initial TCFD reporting. This TCFD reporting has been produced with the help of the Plan's previous investment advisers, Hymans Robertson, as they were the advisers during the period covered by the reporting.

The Trustee has set objectives for its Investment Adviser which include objectives relating to the adviser's support in all RI considerations. The Investment Adviser is assessed against these objectives annually and the objectives themselves are assessed regularly to ensure they remain appropriate. The current Investment Adviser objectives are available as separate document and are updated on a regular basis.

Actuarial Advisers

The Plan's Actuarial advisers, Hymans Robertson, are responsible for identifying any RI considerations which should be incorporated into the Plan's funding strategy (both short and long term) and in the Plan's integrated risk management plan. This will include the setting of individual financial and demographic assumptions, and also the Trustee's assessment of the covenant of the Principal Employer.

Investment Managers

The Plan's investment managers are expected to integrate ESG considerations, to the extent possible, into their management of each of the Plan's mandates.

On the appointment of any new manager, the IC assesses each manager's RI capabilities, with assistance from their Investment Adviser, to determine if that manager's approach is aligned with the Trustee's policies and beliefs. Once appointed, the IC monitors all managers regularly, assessing each manager's RI processes and policy at regular manager meetings and challenging managers on any issues identified. The IC also liaises with the investment managers in relation to RI matters, as required.

Plan Principal Employer

The Plan's Principal Employer and parent company have their own sustainability strategy including regular reporting. The Trustee and IC ensure that there is an ongoing dialogue with the Principal Employer to ensure both parties are aware of each other's approach in this area. The Trustee ensures those issues relevant to the Plan are considered where appropriate and ensures synergy between the Plan and Principal Employer's approach to climate-related issues.

Strategy

Disclosure 1: Describe the climate-related risks and opportunities the Trustee has identified over the short, medium and long-term.

When considering the impact on the Plan, climate risk can be defined as the potential impact on future financial returns that may arise from climate change. Climate risk is typically split into two parts – transition risk and physical risk. These risks may vary in likelihood and intensity over different time horizons and dependent on how quickly and well the world transitions to a low-carbon economy. This is laid out in the diagram below:

Aggressive mitigation — Business as usual

Transition to a low carbon economy - transition risks dominate.

- Policy changes, e.g. *carbon pricing*, seek to create the changes needed in society.
- Technology development, e.g. renewable energy, and adoption enable the changes to be adopted.

Physical risks and impacts dominate.

- Chronic changes, e.g. sea level rise, agricultural systems impact economic and social systems.
- Acute changes, e.g. storms, wildfires create damage and give rise to costs of adaptation and reconstruction.

The Plan is a long-term investor. Given the nature of climate change and the time-horizons over which impacts of climate change may be felt, it can be expected that climate risk will impact the Plan in various ways. However, it is important first to define the different time-horizons which we may consider, in order to clarify whether the different risks and opportunities arising from climate change may impact the Plan in the short-, medium- or long-term.

In the context of the Plan, we consider short, medium and long-term time horizons. We have defined what these time-horizons mean in more detail as set out below:

Short-term time horizon: 1 years (i.e. to 2024)

- We chose 1 years as the short-term time horizon because this this is the period from 31 March 2023 to the next actuarial valuation as at 31 March 2024.

Medium-term time horizon: 7 years (i.e. to 2030)

- The medium-term horizon has been chosen to represent a staging post half-way to the long-term target.

Long-term time horizon: 15 years (i.e. to 2038)

- The long-term time horizon of 15 years aligns to the likely time horizon over which the Plan is expected to reach ‘significant maturity’ under The Pensions Regulator’ new DB funding code.

Transition risks are expected to feature more prominently over shorter-time periods. This view is predominately driven by the likely escalation in climate change regulation over the short to medium term. Over longer-term periods, we expect physical risks to feature increasingly – however the balance between the transition risks and physical risks experienced will depend on the approach taken to climate change and the speed with which the world transitions to a low-carbon economy. Both transition and physical climate risks will impact the Plan during its lifetime.

Risks relating to climate change are identified through the various processes involved in managing the Plan, which are set out in the Risk Management section of this report.

Climate risks may be identified, assessed and monitored in a number of different ways. These approaches include looking at climate risks and opportunities in detail for each asset in which the Plan invests. We consider climate risks at both an overall strategy level as well as with respect to each asset in which the Plan is invested. We then engage with their individual managers on these assets and improvements that can be made.

We assess climate-related risks and opportunities when setting investment and funding strategy, taking into account covenant, to ensure a holistic and consistent approach. The tables below and overleaf set out a summary of the key ESG risks we have identified and monitor. We also consider how the impacts of these risks will manifest over the short-, medium- and long-term. Further detail on the risk management processes in place for the Plan are set out in the next section of this report.

Overall strategy risks

<table>
<tr><th>Risk</th><th>Description</th><th>Examples</th><th>Possible controls/ management techniques</th></tr>
<tr><td>1. Transition - Assets - policy and legal</td><td>Risks (short- to medium-term) that may impact company earnings in the shorter term, e.g. policy risks arising from carbon pricing or taxes.</td><td>Increased pricing of GHG emissions; Enhanced emissions-reporting obligations; Mandates on and regulation of existing products and services; Exposure to litigation.</td><td rowspan="4">Underlying investee companies should provide an indication of the potential climate-related impact on their assets and liabilities, particularly long-lived assets.

Using a wide range of metrics and techniques to assess the risks posed by climate change to their portfolio.

Undertake scenario analysis and asset/liability stressing to assess the risk posed by climate change across the Plan.

Require asset managers to provide carbon footprinting and scenario analysis of transition risks, consider exposure to physical risks and engage with issuers, where relevant/possible.

Consider pathway alignment and how the Plan could align with certain pathways.

Require fund managers to understand and integrate material climate-related risks into their analysis and investment process.

Regularly monitor and review manager activities (including voting & engagement with issues and reporting) regarding climate-related issues.</td></tr>
<tr><td>2. Transition - Assets - Technology</td><td>Risks and opportunities (medium- to long-term) as companies develop, or don't adopt, superior technology to build industry-based solutions.</td><td>Substitution of existing products and services with lower emissions options; Unsuccessful investment in new technologies; Costs to transition to lower emissions technology. Continuation of BAU and wasted investment; delay in change.</td></tr>
<tr><td>3. Transition - Assets - Market</td><td>Risks (short- to medium-term) of shifts in supply and demand for certain commodities, products, and services as climate-related risks and opportunities are increasingly taken into account, resulting in poor asset performance.</td><td>Changing customer behaviour – Uncertainty in market signals – Increased cost of raw materials changes in consumer behaviour and therefore purchasing decisions.</td></tr>
<tr><td>4. Transition – Reputation*</td><td>Reputational risk (short- to medium-term) tied to changing perceptions of an organization’s contribution to or detraction from the transition to a lower-carbon economy.</td><td>Shifts in consumer preferences; Stigmatization of sector; Increased stakeholder concern or negative stakeholder feedback.</td></tr>
<tr><td>5. Transition - Liabilities</td><td>Risk (long-term) that the transition to a low carbon economy and supporting technology resulting in</td><td>Legal action from stakeholder on breaches of fiduciary duty by directors.</td><td>Bake risk into funding assumptions/technical provisions as additional prudence.</td></tr>
</table>

Risk	Description	Examples	Possible controls/ management techniques
	longer life-spans and increasing the liabilities.		
6. Transition – social	Risk (short-, medium- and long-term) that the transition to a low carbon economy is achieved in a way that negatively impacts social elements of society.	Inability to recruit, collective action, protest, reputational damage, impact of job losses in declining sectors.	Regularly monitor and review manager activities (including voting & engagement with issues and reporting) regarding climate/social-related issues and in particular issues that link to the just transition.
7. Physical risks (acute)	Risks (medium- to long-term) of physical damages to real assets and resource availability due to acute physical impacts of climate change.	Short term risks from more frequent and extreme weather events and associated insurance losses. Disruption to BAU economic activity as a consequent of extreme weather event, e.g. agricultural supply chain. Increase prevalence of diseases from destruction of biodiversity and risk of zoonotic diseases.	See above (risks 1 – 4)
8. Physical risks (chronic)	Risks (medium- to long-term) of physical damages to real assets and resource availability due to chronic physical impacts of climate change.	Rising mean temperatures. Rising sea levels. Changes in precipitation patterns and extreme variability in weather patterns leading to impact on agricultural, economic and social impacts.	See above (risks 1 – 4)
9. (Missed) Opportunity risk	Risk (short-, medium- and long-term) that the Plan does not capitalise on opportunities within some asset classes, resulting in not keeping pace with the market.	Opportunities such as sustainable forestry assets that offer a viable nature-based solution to climate change mitigation.	See above (risks 1 – 4) - works for both risks and opportunities

<table>
<tr><th>Risk</th><th>Description</th><th>Examples</th><th>Possible controls/ management techniques</th></tr>
<tr><td>10. Transition - Covenant</td><td>Risk (medium- to long-term) of deterioration of sponsor covenant strength due to not keeping up with the market transition. This could be short term, e.g car companies will fail if they don’t change to EVs</td><td>Similar to the asset risks but focused on sponsor performance.</td><td rowspan="2">If the Plan is well funded – i.e. reducing remaining dependency on sponsor covenant;

Incorporate sponsor risk into funding assumptions/technical provisions as additional prudence

Covenant monitoring & scenario modelling of sponsor covenant.</td></tr>
<tr><td>11. Physical - Covenant</td><td>Risk (medium- to long-term) of deterioration of sponsor covenant due to the physical risks of climate change directly impacting the sponsor’s business.</td><td>Physical risks may have financial implications for organizations, such as direct damage to assets and indirect impacts from supply chain disruption.</td></tr>
<tr><td>12. Governance/ Compliance</td><td>Risk (short- to medium-term) that the scheme does not keep pace with the inevitable policy response leading to a breach of requirements.</td><td>Fail to put in place necessary governance requirements/publish a mandatory TCFD report</td><td>Ensure climate risk is embedded within scheme governance, include important deadlines within business plans, ensure kept up to date by advisors, have climate risk (and related actions) regularly feature on the agenda.</td></tr>
</table>

Asset specific risks

Asset Class	Manager	Identified Risks	Impact		
			Short term impact (1-2 years)	Medium term impact (7 years)	Long term impact (15 years)
ABS	M&G	Holdings are heavily concentrated in the UK and Europe (c.80% total), which exposes the mandate to the risk of increasing regulation in the UK/Europe. Exposure broad sectorally, but exposure to materials, healthcare equipment, commercial & professional services. As of so far, only estimated data provided by manager, so emissions metrics uncertain	Low	Medium	Medium
European Loans	M&G	Holdings are heavily concentrated in the UK and Europe, which exposes the mandate to the risk of increasing regulation in the UK/Europe. Diversified sector spilt, some potential to be impacted by physical risk (e.g. food) but limited Risk that ability of underlying investee companies to service debt could be impacted by both transition and physical risks, particularly given breadth of credit ratings invested in.	Low	Medium	Medium

Asset Class	Manager	Identified Risks	Impact		
			Short term impact (1-2 years)	Medium term impact (7 years)	Long term impact (15 years)
Private Lending	Arcmont	Holdings are concentrated in Europe, which exposes the mandate to the risk of increasing regulation in the Europe. Most sectors included within software, healthcare, services etc - so potentially less exposed to climate risk Risk that ability of underlying investee companies to service debt could be impacted by both transition and physical risks. As of so far, only estimated data provided by manager, so emissions metrics uncertain	Medium	Medium	Medium
	Barings	Risk that ability of underlying investee companies to service debt could be impacted by both transition and physical risks. As of so far, no carbon data provided by manager, so difficult to measure exposure in more detail.	Medium	Medium	Medium

<table>
<tr><th rowspan="2">Asset Class</th><th rowspan="2">Manager</th><th rowspan="2">Identified Risks</th><th colspan="3">Impact</th></tr>
<tr><th>Short term impact
(1-2 years)</th><th>Medium term impact
(7 years)</th><th>Long term impact
(15 years)</th></tr>
<tr><td rowspan="2">Multi Asset Credit</td><td>Schroders</td><td>Significant exposure to US (c.30%) where climate reporting and disclosure typically lags Europe.

Significant exposure to Europe, which exposes the mandate to the risk of increasing regulation in Europe.

Exposure (c.33%) to industrials sector which could be acutely impacted by effects of climate change.</td><td>Medium</td><td>Medium</td><td>Medium</td></tr>
<tr><td>Barings</td><td>Large exposure to US (c.60%) where climate reporting and disclosure typically lags Europe.

Exposure to Europe (c.20% total), which exposes the mandate to the risk of increasing regulation in the Europe.

Risk that ability of underlying investee companies to service debt could be impacted by both transition and physical risks.

As of so far, low data coverage across holdings, and so difficult to measure exposure in more detail.

.</td><td>Medium</td><td>Medium</td><td>Medium</td></tr>
</table>

Asset Class	Manager	Identified Risks	Impact (RAG)		
			Short term impact (1-2 years)	Medium term impact (7 years)	Long term impact (15 years)
CDS	LGIM	As of so far, no data provided by managers, therefore difficult to measure exposure in more detail. Also given mandate type, data will be more difficult to collect, so may take a while to build up a better picture of exposure.	Medium	Medium	Medium
LDI	LGIM	As of so far, data covers only physical bonds, so total emissions picture unclear. Also given mandate type, data more difficult to collect, so may take a while to build up a better picture of exposure. Climate change impact on government borrowing and expenditures. Government not meeting its climate objectives. No standardised approach for reporting on derivative climate exposure - given could be facing counterparties using profits to fund carbon intensive businesses.	Medium	Medium	Medium

The Trustees note that climate-related risks and opportunities will evolve over time as more information and new investment products come to the fore.

Disclosure 2: Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning.

The systemic nature of climate change risk has the potential to reduce returns across all asset classes and will have a macro-economic impact that could affect the entire Plan. Equally, however, the need to transition to a low carbon economy and the innovation which that will require presents a number of potential investment opportunities.

Over recent years we have dedicated considerable time and resource to ensuring that climate risk and opportunities are appropriately embedded within our investment processes. This has largely been in the form of engaging with the Plan's investment managers and when setting investment strategy, considering the resilience of our strategy to climate change risks.

We have identified a number of actions that will be important to undertake to manage climate risk as well as progress against the targets and commitments we have agreed for the Plan.

The actions identified to manage and mitigate climate and ESG risks are set out below:

- Enhance the management of ESG issues and climate change, including new potential investment products;
- Continue to engage with investment managers regarding their processes for taking account of climate risk and steps being taken to improve availability of climate data;
- Comply with the processes and policies set out in the Trustee's Responsible Investment policy;
- Monitor position of Government's approach to directing investment strategies via statutory guidance and legislation;
- Increase the visibility of the Plan's approach to climate change risk.

We have already been undertaking a number of activities to support these actions and manage climate risk to the Plan. These actions include:

- The Investment Committee holds meetings from time-to-time with each of the Plan's investment managers to understand how that manager integrates climate change and other ESG risks and opportunities into their investment process.
- When assessing strategy changes to be taken for the Plan, we have taken into account the climate risks and ESG characteristics of each mandate when selecting the types of investment to increase/reduce exposure to.
- We undertook climate scenario analysis in the review of investment strategy (covered further in the section below).
- We established a set of Responsible Investment beliefs.

Further examples of the actions we have been undertaking are included across other sections of this report.

Disclosure 3: Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, include a 2C or lower scenario.

In order to test the resilience of the Plan's investment strategy to climate risk, we carried out climate scenario analysis, considering the Plan's assets and market conditions as at 31 October 2022 and liabilities projected from cashflows produced as at 30 November 2021. This analysis was undertaken in order to assess the resilience of the Plan's strategy over the short-, medium- and long-term time horizons to a number of different climate scenarios. These climate scenarios estimate the impact to the Scheme of temperature rises roughly equivalent to 1.5°C, 2°C and 4°C above pre-industrial times, as detailed in the scenario graphic below.

The high-level results of the scenario analysis are:

Overall, the Plan's current strategy is generally resilient to climate scenarios, with impacts across the different time horizons being within +/- 5% of the base case results.

- According to the analysis a 2°C or below scenario would not have a significant impact on the Plan over the short and medium terms. A 4°C scenario would have a slight impact on the medium term.
- Over the longer term the analysis shows that the 2°C or below scenarios could be expected to slightly positively impact the Plan's outcomes.
- A 4°C would be expected to more materially negatively impact outcomes over the longer term.

The scenario analysis was based on top-down analysis of the Plan's strategy, using a model produced by Hymans Robertson. The scenario analysis considers the impact of an investment strategy under three scenarios, which differ by how quickly and decisively the world responds (or fails to respond) to climate change. In the table below we summarise these scenarios and how they correlate to the variance of the world's transition to a low carbon economy as outline under Strategy disclosure 1.

Aggressive mitigation ← → Business as usual

Green Revolution	Delayed Transition	Head in the Sand
Concerted policy action starting now e.g. carbon pricing, green subsidies Public and private spending on "green solutions" Improved disclosures encourage market prices to shift quickly Transition risks in the short term, but less physical risk in the long term Expectation of achieving c.1.5°C warming	No significant action in the short-term, meaning the response must be stronger when it does happen Shorter and sharper period of transition Greater (but delayed) transition risks but similar physical risks in the long-term High expectation of achieving <2°C warming	No or little policy action for many years Growing fears over ultimate consequences leads to market uncertainty and price adjustments Ineffective and piecemeal action increases uncertainty Transition risks exceeded by physical risks Low/no expectation of achieving <2°C warming

Timing of disruption: Immediate → 10+ years

Intensity of disruption: High → Very high

Scenario analysis includes testing a number of elements of the Plan's overall strategy, such as the current investment strategy as well as alternative investment strategies and different levels of expected sponsor contribution rates.

Further information on what was modelled is included within Appendix II.

Climate Scenarios – Outputs

We considered two key outputs when understanding the resilience of the Plan to each of the climate scenarios:

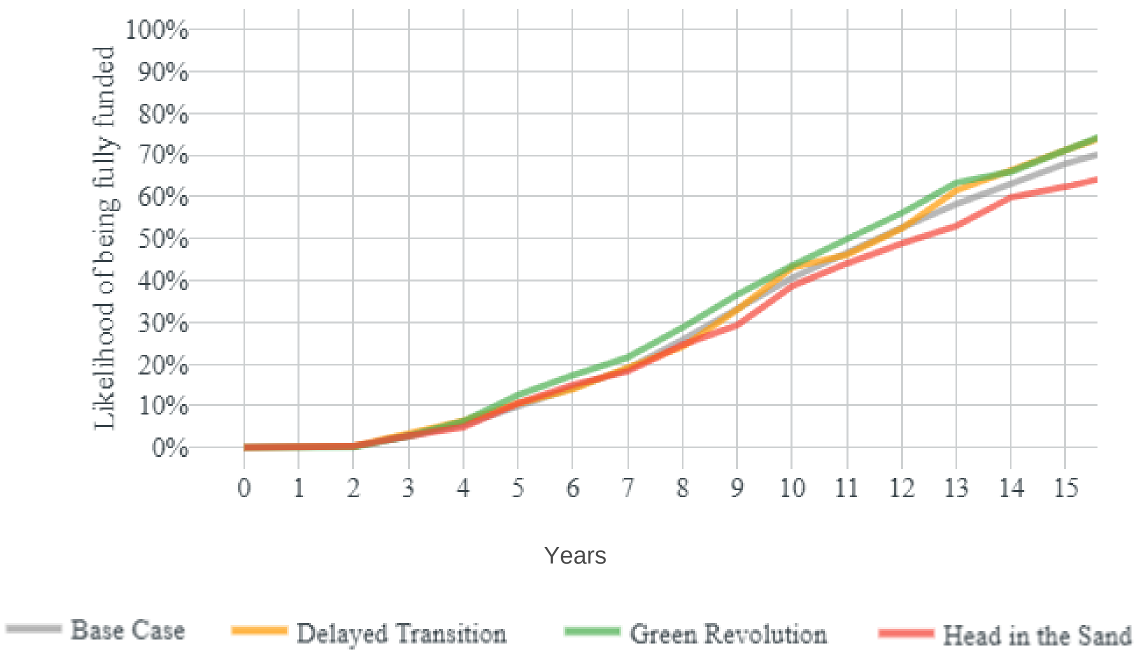
- **'Likelihood of success':** by this we mean the probability that the Plan will be 100% funded (i.e. assets are at least equivalent to the liabilities) over time.
- **'Downside risk':** by this we mean the possible funding level over time in the worst 5% of cases.

The graphs below set out the results of the scenario analysis for the Plan.

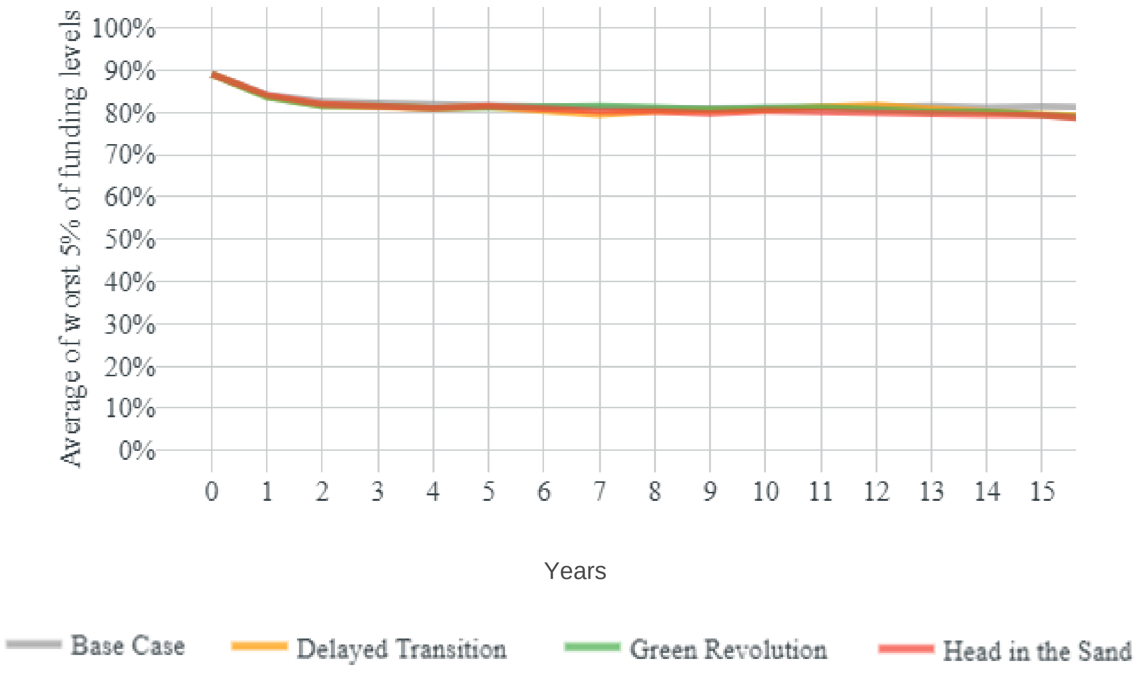
From this analysis we were able to conclude that there was a lower likelihood of success for the Plan under the 'Head in the sand' scenario – this is likely due to the impacts of this scenario typically being felt in the longer term. However, overall, there was no material difference in results, suggesting that the investment strategy is resilient to a range of climate change scenarios.

The charts below show the likelihood of success and downside risk based on the strategic allocations effective in October 2022, and assuming no sponsor contributions are paid.

Likelihood of Success – Progression over time



Downside risk – Progression over time



Climate Scenarios – Conclusions

Overall the Plan's investment strategy is generally resilient to the climate scenarios, with the impacts across the different time horizons being within +/- 5% of the base case results.

For short term time horizons, the climate scenarios are not expected to materially impact the distribution of outcomes.

In the medium term, the impact of a delayed transition begins to feed through negatively on the probabilities of success as a result of policymakers taking more extreme action to limit rising global temperatures such as carbon pricing. This disruption is expected to impact growth-seeking assets more significantly.

Over the medium to long term, the 'green revolution' scenario positively impacts outcomes as companies and economies have successfully transitioned to a sustainable footing, improving the long-term prospects of the companies, with some harnessing the positive economic potential of green industries.

Under the 'head in the sand' scenario however, medium- and long-term outcomes are materially worse than under the base case as a result of the impacts of more severe physical climate risks feeding through.

An additional strategy was also assessed which targeted a higher investment return that the current strategic allocation. This portfolio was more exposed to climate transition risks than the current portfolio in the medium term. This was a result of the higher allocation to growth assets (such as equity) compared to the current strategic allocation.

Based on the output of the scenario analysis, we agreed that no further action was required in respect of the Plan's strategy at this stage, however it was noted that any future strategy changes to increase exposure to growth assets should take account of the climate risk of the mandate(s) to be added in order to minimise potential transition risks.

We will also continue to measure its exposure to climate risk through the annual carbon footprinting exercise, which will flag up specific risks and opportunities in portfolio companies.

This analysis will be carried out on at least a triennial basis, alongside each future investment strategy review or shortly thereafter, and triennial Actuarial Valuation. In the interim years, the Trustee will consider whether to refresh the analysis, stating whether or not they choose to do so and why in the relevant TCFD report covering that period.

Risk management

Disclosure 1: Describe the processes for identifying and assessing climate-related risks.

As part of the Trustee's responsibility for the setting and implementation of the Plan's Responsible Investment Policy, the Trustee must ensure that ESG-related risks, including climate change, are identified, assessed and effectively managed. Therefore, it is crucial that the management of these risks is integrated into the overall risk management of the Plan. The Trustee delegates aspects of this responsibility to other parties, but retains overall oversight, as set out previously in the Governance section of this report. Below, where we have referred to ESG risks more broadly, this will include consideration of climate change risks.

The Plan's risk management framework takes the form of a Climate Risk Dashboard which is monitored regularly.

At a simple level, the Trustee's risk management process comprises identification, assessment, monitoring and control of risk. The Trustee currently takes a top-down approach to risk management, which uses their strategic objectives as the starting point for their risk management process.

Climate risks are identified by Trustee and their advisors as appropriate. Information from a number of sources is used to help identify risks and the Trustee and their advisors are responsible for identifying risks as appropriate.

Once risks are identified, they are then evaluated and prioritised based on the overall threat posed to the schemes. This helps the Trustee build up a picture of the Plan's risks more widely and where climate-related risks sit in the overall risk management framework.

The Trustee will also undertake risk analysis at the individual asset level. This is known as a bottom-up analysis. In this instance, the Plan's investment managers are also responsibly for the identification and assessment of climate-related risks and opportunities. This approach will use available information to assess the potential impact of climate-related risks to investment performance.

ESG and, in particular, climate-related risks can be identified by various parties including the Trustee, any other parties as outlined in the governance section, e.g. sub-committees, investment managers or the Plan's advisers as part of the ongoing management of the Plan. ESG risks are identified as part of the following processes:

- **Investment strategy reviews** – The Trustee considers ESG risks as part of the Plan's regular investment strategy reviews that are carried out alongside each Actuarial Valuation and on an ad hoc basis as required. These reviews cover the extent to which social, environmental and governance considerations are taken into account in the selection, retention and realisation of investments. The Plan's Investment Advisers are expected to integrate ESG considerations into their strategy advice and to highlight any key risks that are included within any potential investment strategy.
- **Valuations and covenant reviews** – We also consider ESG risks as part of the triennial Actuarial Valuation process ensuring that this analysis considers the funding, covenant and investment risks in a joined-up way. The Scheme Actuary will incorporate the consideration of ESG risks in the actuarial assumptions advice and any projections which are considered to evaluate the possible long-term funding outcomes for the Plan. When assessing the employer's covenant we take into account the ESG risks to the employer.
- **Considering asset classes** – When assessing new asset classes, potential ESG risks are assessed and discussed as part of the training provided to the Trustee. Key ESG risks are taken into account when comparing alternative options.
- **Selection of investment managers** – When appointing a new investment manager, the Plan's Investment Adviser provides information and their view on each manager's ESG policy and capabilities. Each manager is also asked to provide information regarding their own ESG risk management processes

as part of the selection process. This information allows the Trustee to identify potential risks when comparing potential providers. The Plan's policy also requires Investment Managers to engage on ESG issues, rather than divest.

- **Individual mandates and investments** – The Trustee also undertakes risk analysis at the individual asset level and has adopted enhanced management of ESG issues and climate change, including new potential investment products. In this instance, the Plan's investment managers are responsible for the identification and assessment of ESG, including climate-related risks and opportunities and will be expected to identify and disclose these risks to the Trustee in the following ways:
  - As part of their regular reporting as investment strategy is subject to continuous review by the Plan and quarterly by the IC;
  - During their presentations when meeting with the IC;
  - As part of their more in-depth responsible investment meetings with the IC;
  - By providing climate metric data in line with the TCFD requirements; and
  - By providing any relevant scenario analysis.

We have met with each of the Plan's current investment managers to gain a more in-depth understanding of each manager's process and the risks inherent in each of the current mandates.

Any key risks identified are discussed by the IC and are listed on the Plan's climate risk dashboard to be monitored on an ongoing basis.

We note that evaluation of ESG-related risks and opportunities is based on relevant information and tools being available, as well as the quantification of ESG and climate-related risks and opportunities being a developing area based on continuously emerging information. We actively engage with all managers to promote improvement in this area.

Disclosure 2: Describe the organisation's processes for managing climate-related risks.

Prioritising risks and agreeing actions

Once risks are identified and added to the climate risk dashboard, they are then evaluated and prioritised based on the overall threat posed to the Plan.

The Trustee prioritises risks based on the size, scope and materiality of the risk event. This includes rating the likelihood and impact of the risk event to produce a score reflecting the threat that the risk event poses to the Plan, then making a decision on the appropriate action (mitigation, control or acceptance) based on this score and available courses of action. Rating the risk's likelihood and impact may be informed by scenario analysis and calculated metrics where relevant. This helps the Trustee build up a picture of the Plan's risks more widely and where ESG risks sit in the overall risk management framework.

Risks and opportunities should be considered in absolute terms and in relation to the risk appetite of the Plan. Risk appetite can be defined in terms of a willingness to take risk or the acceptability of risk.

Once the risks facing the scheme have been considered and prioritised, mitigation strategies will be established and monitored to ensure that they remain effective. We will delegate the management of certain risks to other parties, as set out in the Governance section. Risks that are deemed to be high in likelihood, impact, or both after allowing for mitigating controls are deemed to take priority for future action.

An action in the context of risk management will aim to either introduce an additional control to mitigate the likelihood of a risk occurring or reduce the impact of a risk should it occur. This discussion will also consider whether additional Trustee training is required.

Expectations of investment managers

The Trustee's expectations of the investment managers with regard to the integration of ESG risks are set out in the Plan's Statement of Investment Principles (SIP) and Responsible Investment policy. These documents are shared with the Plan's investment managers who are asked to report regularly on how their strategy is aligned with the Trustee's intentions and to discuss with the Trustee any investments which do not comply with these policies. The Trustee monitors the ESG activities of all managers through regular reporting and meetings, as set out above.

In summary, the Trustee will expect all of its investment managers to:

- be aware of the investment risks and opportunities associated with climate change;
- incorporate climate considerations into the investment decision making practices and processes;
- monitor and review companies and assets in relation to their approach to climate change; and

The Trustee engages with current investment managers where risks have been identified to agree a plan of action through the IC. This may include setting specific targets for certain mandates and more regular monitoring of mandates at higher risk. In some circumstances, this could include instructing managers to disinvest from certain investments or by disinvesting from specific investment mandates.

In addition, the Trustee, with the assistance of its Investment Advisers, prepares an annual Implementation Statement which assesses the engagement and voting activities of investment managers and is used to monitor managers' activities in this area.

The Plan's approach to stewardship is also a key aspect of the management of climate-related risk. The Trustee expects their investment managers to consider and take appropriate steps to manage climate-related risks within their funds, including engagement with underlying investee companies on their management of climate risks.

The Trustee receives reporting from their investment consultant on engagement and voting activities of investment managers as part of the delivery of the Implementation Statement and uses these to monitor performance in line with the agreed beliefs and resulting expectations for investment managers as well as any requirements within mandates in place. Where investment managers are not performing in line with expectations, the Trustee engages further with the manager to understand why and work to improve the performance, further to which the Trustee undertakes a formal review if this does not occur.

Disclosure 3: Describe how processes for identifying, assessing and managing climate-related risks are integrated into the overall organisation's risk management.

As set out under Risk Management Disclosure 1, the management of ESG risks is integrated into the Plan's current risk management processes in the following ways, with all risks considered in the context of the overall risks inherent in any strategy:

- **Valuations and covenant reviews** – When assessing the employer's covenant we review the employer's plans to manage the ESG risks identified. We consider the extent to which any adjustment is needed to the funding approach or strategy as a result of any ESG risks identified through the "identifying" stage described above. This will be considered in the context of the investment and covenant risks faced by the Plan and may consider the appropriateness of actuarial assumptions and of overall security provided to the Plan.
- **Setting strategy and choosing asset classes** - Determining whether exposure to any asset class should be reduced, increased or avoided in light of the ESG risks identified.

- **Selection of investment managers** – The Trustee considers whether or not to invest with managers whose mandates are expected to introduce an unacceptable level of risk or who do not have adequate processes for the identification and management of ESG risks.
- **Monitoring current investment managers / Individual mandates and investments** – The Trustee expects its investment managers to manage the ESG risks identified within their own mandates by:
    - Integrating the analysis of these risks into the overall assessment of any potential investment.
    - Engaging with investee companies where risks have been identified, to understand and encourage their management of ESG and in particular climate-related risks.

The Trustee sets the overall strategy and risk budget for the Plan and covers responsible investment matters, including the integration of climate change within the Plan's investment strategies.

Climate change is included within the Plan's Risk Register in the context of the risk of the investment strategy or investment managers underperforming. Relevant controls and mitigating actions are also intended to be documented in the Risk Register. The Risk Register is reviewed regularly by the Trustee. As set out above the Plan will continuously monitor and challenge all of its Investment Managers to support the targets set by the Plan.

Climate risks are identified by the Trustee and their advisors as appropriate. These risks are then added to the Plan's risk register which forms part of the Plan's overarching Integrated Risk Management approach and framework. This includes rating the likelihood and impact of the risk event to produce a score reflecting the threat that the risk event poses to the Plan, then making a decision on the appropriate action (mitigation, control or acceptance) based on this score and available courses of action. Appropriate controls and mitigating actions are determined and put in place as part of the process to add these risks to the Risk Register.

Metrics and targets

Disclosure 1: Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management processes.

We commissioned the first report on climate metrics for the Plan in 2022. We acknowledge that the climate metrics chosen to provide information on the Plan may change over time. This may be in order to better meet future requirements as well as to provide further information on the Plan's position with respect to climate risks and opportunities over time taking into account how Plan's priorities may change.

We receive reporting on a regular basis from our managers which includes a variety of climate-related metrics. We believe it is important to consider a variety of metrics on a holistic basis, covering both forward and backward-looking metrics.

Carbon equivalent risk metrics will expect to form an important part of the Plan's investment decision-making process to measure, manage and disclose climate risk. The selected metrics will also aid the Trustee in identifying opportunities for further engagement with investment managers and underlying investee companies.

The TCFD requirements have set out clearly defined expectations for the categories of metrics that must be measured and reported on. For clarity, we have set out those requirements below, as well as the metrics chosen by the Trustee for the Plan that align to the requirements:

- One **absolute emissions metric** is to be chosen and monitored;
  - There is only one choice of absolute emissions metric – Total Greenhouse Gas (GHG) emissions.
- One **emissions intensity metric** is to be chosen and monitored;
  - There is a choice of Carbon Footprint or Weighted Average Carbon Intensity for the emissions intensity-based metric.
- An **additional climate change metric** that is non-emissions based; and
  - There is a wide variety of outcome based and process-based metrics that may be chosen.
- A **forward-looking portfolio alignment metric:**
  - There are three different portfolio alignment metrics that may be chosen from

The following metrics are included in this report in line with the above requirements:

Type	Metric	Measurement
Absolute Emissions Metric	Total Greenhouse Gas (GHG) emissions	The volume of scope 1 and scope 2 emissions from the Plan's assets – Measured in tons of $CO_{2e.}$
Emissions Intensity Based Metric	Carbon footprint	The volume of scope 1 and scope 2 emissions per unit of capital invested from the Plan's assets – Measured in tons CO_{2e} per £m invested.
Additional climate change metric (non-emissions based)	Data quality – A measure of the level of actual and estimated data available from the Plan's managers.	Measured per mandate - % of mandate for which we have actual, estimated or no data.
Portfolio alignment metric	Binary target measurement	Measured as the % of portfolio at year end with specific net zero targets

Many climate-related metrics are based on the level of Greenhouse Gas (GHG) emissions that are related to a particular asset or investment. Greenhouse Gas emissions are categorised into 3 scopes:

- **Scope 1** - All direct GHG emissions from sources owned or controlled by the company (e.g., emissions from factory operations).
- **Scope 2** - Indirect GHG emissions that occur from the generation of purchased energy consumed by the company.
- **Scope 3** - Indirect emissions that arise as a consequence of the activities of the company e.g. supply chains and the use and disposal of their products. These are sometimes the greatest share of a carbon footprint, covering emissions associated with business travel, procurement, production of inputs, use of outputs, waste and water.

Although we are currently gathering scope 3 data for the Plan's investments where available, this is currently not well reported on and we have split out the scope 3 data in this year's report in order to be more clear as to where data gaps lie.

The Trustee acknowledges that there are limitations in data available from investee companies on emissions of greenhouse gases, particularly for scope 3 emissions as noted above. Where these limitations in data exist, the data may be estimated or not yet reported. The Trustee will seek to obtain information, where it is currently missing, for future assessments. In the meantime, the results of the above metrics have been understood to be reflective of the portfolio, but the limitations of data availability is noted when using the metrics for decision-making purposes.

Disclosure 2: Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.

The table below sets out a summary of the greenhouse gas emissions data provided by our investment managers and the measurement of each metric using this data.

Mandate	Measurement date	Total carbon emissions (tCO2) – Scope 1+2	Carbon footprint – Scope 1+2
M&G Loans	**31/12/2023**	**7,096**	**65.7 tCO2/$m EVIC**
M&G ABS	**13/03/2023**	**3,020**	**53.8tCO2/£m**
LGIM LDI	**31/03/2023**	**10,354**	**59.5 tCO2e/$m**
Schroder ISF Sustainable Global Multi Credit	**31/03/2023**	**1,618**[1]	**33.3 tCO2e/$m**
Arcmont Senior Loan Fund II	**31/12/2022**	**587**[1]	**11.5 tCO2e/£m**
Barings Global Multi Credit	**31/03/2023**	**26,659**[1]	**177.7 tCO2/$m EVIC**

Source: Investment managers. [1] Estimated by Hymans Robertson using asset value at measurement date and carbon footprint provided by investment manager.

The scope 3 emissions, where available, have been set out separately in the table below. It is noted that the data and methodology for scope 3 emissions is a lot less well defined currently than scope 1 and 2 emissions; therefore this has been kept separate.

Mandate	Measurement date	Total carbon emissions – Scope 3	Carbon footprint – Scope 3
Schroder ISF Sustainable Global Multi Credit	**31/03/2023**	**9,669[1]**	**199 tCO2e/£m**
Arcmont Senior Loan Fund II	**31/12/2023**	**2,040[1]**	**40 tCO2e/£m**

Source: Investment managers. [1] Estimated by Hymans Robertson using asset value at measurement date and carbon footprint provided by investment manager.

The other metrics chosen for the Plan were also measured, as shown in the table below:

Mandate	Measurement date	Reported emissions data (%)	Estimated emissions data (%)	Binary target measurement (%)
M&G Loans	31/03/2023	57.3%	40.6%	n/a
M&G ABS	13/03/2023	0%	21.9%	n/a
LGIM LDI	31/03/2023	100%	0%	n/a
Schroders Global Multi Credit	31/03/2023	78%		n/a
Arcmont Senior Loan Fund II	31/12/2023	0%	100%	n/a
Barings Global Multi Credit	31/03/2023	17%	13%	n/a

Currently, a proportion of the Plan's holdings are unable to be measured across the different metrics. This is in part due to the nature of some investments and the difficulties in measuring climate metrics across these types of investments. As part of ongoing dialogue with managers, we will strive to improve this over time to ensure we receive a fuller picture of the Plan's position.

Currently data is not available for the Barings Global Private Loans Fund. Total fund level data is also not available for The Partners Fund.

We are also continuing to engage with managers regarding the availability of data relating to the binary target measurement (the proportion of portfolio asses with specific net zero targets).

The highest contributor to the Plan's overall carbon emissions is the Barings Multi-Asset Credit mandate. The data coverage across this mandate is currently limited, and it will be important to monitor change in carbon footprint of this mandate in future years.

The smallest contributor to overall carbon emissions (of the mandates with any available data) is the Arcmont fund. We note however that the emissions data for this portfolio is fully based on estimates, therefore this may impact on its reliability.

In future reports, the Trustee will monitor the metrics on an at least annual basis and identify whether performance has improved or deteriorated over time. Where performance has deteriorated, the Trustee will engage further to understand the reasoning and undertake any appropriate remedial actions. The metrics will also be used to monitor the Plan's performance in line with climate-related targets (see Metrics and Targets Disclosure 3).

The Trustee acknowledges that at this point, limited data is available on industry wide comparisons and the Trustee has relied heavily on the market knowledge of its advisers in understanding how well the funds are performing and whether further improvements could be made at this stage.

Metrics and Targets Disclosure 3: Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets

As set out above, we are currently working through our investment mandates to agree specific sets of ESG metrics and where appropriate, related targets, including climate-related targets. Given the nature of the assets and availability of data, we consider targets on a mandate-by-mandate basis in order to appropriately reflect the action that can be taken and the key priorities for that mandate. For example, for some mandates our current priority is to improve data in the first instance to enable us to set more meaningful targets, whereas for other mandates, agreeing a path towards net zero for all holdings is our key priority.

Data Quality Target

Given the currently low levels of data available from some of our investment managers and our focus on engagement with managers to improve this data, we have set a data quality target for each of the Plan's mandates. For all mandates, we are targeting an increase from the current score to the next level up by the end of the next scheme year.

To date, we have agreed the following targets for our investment mandates:

The Trustee agreed to use the scoring system outlined below for monitoring and assessing the managers' progress and setting data quality targets. Please note that all percentages refer to portfolio coverage, i.e., for what % of the portfolio the given type of data is available.

Score	Emissions data requirements
4 – Excellent	At least 75% of actual data available OR >95% overall coverage including at least 65% actual data
3 – Good	At least 65% actual data available OR >70% overall coverage including at least 45% actual data
2 – Adequate	At least 45% of actual data available OR >60% overall coverage using estimates
1 – Poor	Less than 45% of actual data available OR <60% overall coverage using estimates

The targets set by the Trustee for the mandates in line with the above scoring system are below:

Mandate	31/03/23 Allocation	Total data available (reported and estimated)	Current data availability score	Short term target (1-2 years)	Medium term target (7 years)	Long term target (15 years)
LGIM LDI	36.1%	100%	3 – Good*	3 – Good	4 – Excellent	4 – Excellent
M&G ABS	18.2%	21.2%	1 – Poor	2 – Adequate	3 – Good	4 – Excellent
M&G European Loans	13.3%	97.9%	2 – Adequate	3 – Good	4 – Excellent	4 – Excellent
Schroders Credit	5.0%	78%	3 – Good	4 – Excellent	4 – Excellent	4 – Excellent
Arcmont Loans	5.2%	100%	2 – Adequate	3 – Good	4 – Excellent	4 – Excellent
Barings MAC	13.3%	30%	1 – Poor	2 – Adequate	3 – Good	4 – Excellent
Barings GPLF	5.8%	0%	1 – Poor	2 – Adequate	4 – Excellent	4 – Excellent
The Partners Fund	1.2%	0%	1 – Poor	2 – Adequate	4 – Excellent	4 – Excellent

*Further refinements can be expected with regards to carbon reporting on derivatives.

The above targets have been agreed based on the baseline calculated in the carbon footprint analysis as set out under Metrics and Targets disclosure 2.

We will undertake an annual review of the targets, including interim targets, to ensure that they remain appropriate and challenging, given the ever changing, economic, environmental and technological environment. These reviews will look for opportunities to introduce Net Zero targets where this is considered reasonable.

As the above targets were set during the 2022/23 Plan year, we are not yet able to report performance against each target. Progress against these targets and any other targets set for the Plan's other mandates will be included in future reports.

The ability for diversified investors (such as pension funds) to set meaningful climate targets is inhibited by the limited availability of credible methodologies and data currently available. Like most investors, the Plan is supportive of the development of target-setting methodologies, and of the increasing completeness of carbon datasets. The Plan wishes to set meaningful and challenging climate targets for its investment portfolio and work is underway to assess options within the limitations of currently available data.

Appendix I: Glossary and definitions

Fiduciary responsibilities
The responsibilities of the committee to act in the best interests of the Plan's beneficiaries (i.e. Plan members).

Systemic risk
Systematic risk refers to a risk that impacts the entire market, not just a particular stock or industry.

Carbon neutral
Carbon neutrality is the state where the amount of carbon emissions being emitted is balanced out by the removal of the same amount of emissions. It can be achieved through carbon offsetting.

Net Zero
Net zero refers to the amount of all greenhouse gases (which includes but is not limited to carbon dioxide) being emitted being equal to those removed. It typically also includes reduction of total emissions as much as possible, with only the remaining unavoidable emissions being offset.

Carbon pricing
Carbon pricing assesses and quantifies the external costs of greenhouse gas emissions, for example damage to crops or loss of property from flooding and sea level rises, and relays these costs back to the source of the emissions through a price, usually in the form of a price on the carbon dioxide (CO2) emitted.

Macro-economic
The area of economics concerning with large-scale (e.g. national or international) or general economic factors, such as interest rates and inflation.

Low carbon economy
An economy based on energy sources that produce low levels of greenhouse gas (GHG) emissions.

Stewardship Code
The UK Stewardship Code 2020 sets high stewardship standards for those investing money on behalf of UK savers and pensioners, and those that support them. Stewardship is the responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society. To become a signatory to the Code, organisations must submit to the FRC a Stewardship Report demonstrating how they have applied the Code's Principles in the previous 12 months.

Scope 1:
All Direct Emissions from the activities of an organisation or under their control. Including fuel combustion on site such as gas boilers, fleet vehicles and air-conditioning leaks.

Scope 2:
Indirect Emissions from electricity purchased and used by the organisation. Emissions are created during the production of the energy and eventually used by the organisation.

Scope 3:
All Other Indirect Emissions from activities of the organisation, occurring from sources that they do not own or control. These are usually the greatest share of the carbon footprint, covering emissions associated with business travel, procurement, waste and water.

IIGCC

Institutional Investor Group on Climate Change: membership body for investor collaboration on climate change, comprising 330+ members, mainly pension funds and asset managers responsible for €39+ trillion in assets under management.

Responsible Investment

The integration of ESG factors into investment decision making and asset stewardship practices.

Transition pathways

Technologically achievable, scientifically-derived, decarbonisation roadmaps which are being developed for high-emissions sectors.

TCFD

Taskforce on Climate-Related Financial Disclosures.

Financial Stability Board

The Financial Stability Board is an international body that monitors and makes recommendations about the global financial system. It was established after the G20 London summit in April 2009 as a successor to the Financial Stability Forum.

Greenhouse Gases ("GHG")

Greenhouse gases are gases in the Earth's atmosphere that are capable of absorbing infrared radiation and thereby trap and hold heat in the atmosphere. The main greenhouse gases are:

- water vapour
- carbon dioxide ("CO_2")
- methane ("CH_4")
- nitrous oxide ("N_2O").

Metrics used

Total Carbon Emissions

This represents the portfolios estimated Scope 1 + Scope 2 greenhouse gas emissions. This is expressed in terms of thousand tons of CO2 equivalent emitted by the companies invested in by the portfolio, weighted by the size of the allocation to each company.

Carbon Footprint

The volume of scope 1 and scope 2 emissions per unit of capital invested from the Plan's assets – measured in tons CO2e per £m invested.

Appendix II: Reliances and limitations

This modelling is a form of asset-liability modelling (“ALM”).

The following two investment strategies were modelled.

	Strategic target	Higher return alternative
Equities	-	7.5%
Private Equity	-	-
Total Growth	**-**	**7.5%**
ABS	15%	10%
Loans	8%	5%
Multi-Credit	12%	10%
Illiquid Debt	6.5%	10%
Buy and Maintain Credit	-	22.5%
Total Income	**41.5%**	**57.5%**
CDS notional (exposure)	*9%*	*5%*
LDI and collateral	**58.5%**	**35%**

Assets are projected forward from 30 November 2021 using membership data at that date under 5,000 different outcomes for future market and economic conditions.

For each outcome (5,000 per scenario), we calculate the funding position annually throughout the projection period.

The funding position uses the same methodology as at the 2021 formal valuation.

We then rank the 5,000 outcomes from best to worst and we plot the outcomes graphically (as shown in the following two pages).

We can then compare the range of outcomes with other scenarios.

The ALM combines the Plan’s cashflows, an investment strategy including any hedging, contributions into the Plan and stochastic economic scenarios from our economic model (ESS) to create stochastic projections of the funding positions.

While the model allows for the possibility of scenarios that would be extreme by historical standards, including very significant downturns in equity markets, large systemic and structural dislocations are not captured by the model. Such events are unknowable in effect, magnitude and nature, meaning that the most extreme possibilities are not necessarily captured within the distributions of results.

We would be happy to provide fuller information about the scenario generator, and the sensitivities of the results to some of the parameters, on request.