Taskforce on Climate-related Financial Disclosures 2024 Report

Introduction

This statement sets out the approach of the Trustee of the QinetiQ Pension Scheme ("the Scheme") to monitoring and mitigating climate-related risks and to assessing climate-related opportunities.

The Scheme's purpose is to pay pension benefits to members. The investment strategy has been designed to provide a smooth journey path towards the Scheme's long-term objective. The strategy aims to provide funding level stability whilst achieving a strong probability of paying member's benefits as they fall due. A key priority for the Trustee is ensuring that the Scheme's investment managers are cognisant of the climate-related risks and opportunities both where they might be material to the success of the Scheme and the growing importance of responsible investment to Scheme beneficiaries, in financial markets and engaging with those managers about their action plans to mitigate those risks and take advantage of those opportunities.

TCFD Reporting

We believe that climate change is a systemic risk. To achieve a sustainable future and to safeguard economic growth, we believe that concerted global action is required to tackle the climate crisis. We believe that improved transparency on climate-related matters will lead to improved investment decisions and member outcomes. Therefore, we engage with our investment managers on how they integrate climate-related considerations into their investment processes and what actions they are taking to ensure that they are achieving best practice.

The Trustee Board supports any initiative that helps improve disclosures and enhances transparency. The Taskforce on Climate-related Financial Disclosures ("TCFD") framework provides a structure for asset owners to outline the steps taken to identify, manage and monitor climate-related risks and opportunities. The framework is designed to increase comparability but allow flexibility to communicate specific approaches followed.

Background

The intention of the Task Force report is to disclose clear, comparable and consistent information about the risks and opportunities presented by climate change. We are committed to monitoring good practice to learn and develop our approach and help smooth the transition to a more sustainable, low-carbon economy.

The disclosures are designed to make TCFD-aligned disclosures comparable, but with sufficient flexibility to account for local circumstances. We are committed to monitoring the impact of climate change risk but appreciate the difficulty in estimating the exact timing and severity of the physical effects of climate change.

This is our second disclosure in accordance with the requirements of TCFD and represents conversations through to 30 June 2024. This statement is expected to evolve over time as our approach to responsible investment integration develops.

This report provides detail of our actions against the four pillars set out by the TCFD:

- **Governance**: The Scheme's governance around climate-related risks and opportunities
- **Strategy**: The actual and potential impacts of climate-related risks and opportunities for the Scheme
- **Risk management**: The process used by the Scheme to identify, 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 and actively encourage this through our regular reporting and ongoing dialogue with the Scheme's managers. The below pages detail our climate risk disclosures.

Contents

Summary of this year's report

Over the last 12 months through to 30 June 2024, the Trustee has taken steps to assess and measure the climate-related risks present within the Scheme's investment strategy and to explore the options available to mitigate these risks. The Trustee believes that responsible investment issues can have a material impact on the long-term performance of investments and therefore integrating ESG factors and climate-related risks into investment processes should lead to better long-term returns for Scheme assets.

An important part of the mitigation of climate risks will be reducing the greenhouse gas emissions of the Scheme's assets over time – having a high degree of confidence that this objective can be achieved will depend on data availability. There has been an improvement in data coverage and data quality over the last 12 months but further work is required to achieve the desired level of transparency. The Scheme achieved its emissions data coverage target within direct lending and will consider what additional targets could be set following the completion of the long-term strategy planning discussions scheduled for next year.

The key highlights and findings from the 2023/24 TCFD report are set out below:

Governance

The Trustee has overall responsibility for managing, assessing and addressing climate-related risks faced by the Scheme. The Scheme receives support from the Sponsor and its investment, actuarial and covenant advisers. Following the move to professional sole corporate trustee, the Scheme's governance approach was reviewed, and the roles and responsibilities were updated. Over the last 12 months, the Scheme consolidated its existing governance documents to ensure that the priority areas are clearly articulated and can be easily monitored.

Strategy and risk management

Over the last 12 months, the Scheme's investment advisers held engagement meetings with the Scheme's investment managers and discussed the different physical and transitional climate-related risks present within the investment strategy. The Trustee has discussed the expected impact of these risks over different time horizons and the steps that may be taken to address them. The Trustee, via their investment advisers, has engaged with the investment managers over how well they are positioned to take advantage of climate-related opportunities.

Last year, we carried out scenario analysis to test the resilience of the Scheme's funding position under a range of possible scenarios. The analysis undertaken provided us with sufficient comfort that our current strategy has a high degree of resilience to climate change. As the composition of the investment strategy has remained relatively static over the last 12 months, we decided to not re-run the scenario analysis as we did not expect any deviation from the output seen last year.

Metrics and targets

The table below summarises the latest position reached with each of the Scheme's investment managers.

Asset class	Manager	Current approach
Private Equity	Adams Street	Data availability means that the Scheme focuses on WACI[1] data. This information is available quarterly and the manager provides commentary explaining any shifts in output.
Synthetic Equity	Insight	Limited guidance is currently available and Insight do not report any emissions data for equity derivatives. The Scheme will continue to monitor best practice.

[1] WACI: Weighted average capital intensity. Please see Appendix 2 for further information.

Asset class	Manager	Current approach
Private Debt	HPS	The manager uses a third party provider to collect absolute emission and emissions intensity data on underlying loans. Commentary explaining how the position has evolved is also provided by the manager. HPS also provides carbon emissions and WACI figures allowing for Scope 3 emissions.
	Partners Group	The manager was not able to provide any emissions or WACI data this year but has taken steps to rectify this for next year. Key area of engagement is to improve engagement from borrowers in manager's ESG questionnaire.
	Ares	The manager has engaged with Novata to provide emissions data. Engagement has been good with most borrowers being able to report Scope 1 & 2 emissions using Novata's emissions calculator.
CRE Debt	DRC	The manager has illustrated that Scope 1 & 2 emissions are not relevant for this asset class. The manager is currently reviewing process to calculate Scope 3 emissions for CRE Debt but information currently not available.
	M&G	Provision of data is dependent on information collected by borrowers. Limited actual data currently available. Given REDF VI is no longer actively investing, there is limited ability to influence borrowers over emissions reporting. Manager is not comfortable sharing estimated emission figures externally.
LDI	Insight	The manager provides climate data on a quarterly basis. The information provided for the LDI portfolio solely considers government bonds, index-linked gilts and gilt derivatives.
Asset backed securities	Insight	There are currently no reliable external data providers. Insight sends originators a proprietary questionnaire at issuance. The manager is developing their own methodology for providing emissions data for specific sub asset classes within ABS. The initial priority has been RMBS and CLOs.

The remainder of this report provides further detail articulating how the Trustee is meeting its fiduciary responsibilities to its Scheme members from a TCFD perspective.

Signed on behalf of the Trustee:

Governance

How we retain oversight of climate-related risks and opportunities

The Scheme's Responsible Investment Policy sets out the Trustee's key RI beliefs and the approach that will be taken to implement those beliefs. The Policy was last updated in June 2024 and will be reviewed periodically. The Trustee Board has ultimate responsibility for the Scheme's RI policy. This includes ensuring that the Scheme's governance processes are sufficient to ensure the proper management of climate-related risks.

On 1 October 2023, the Scheme moved to a professional sole corporate trusteeship. As such, it was agreed that Responsible Investment considerations would be integrated into the new meeting structure. Specifically, individual monthly meetings would be held, focusing on three specific areas: LDI and synthetic exposure; illiquid mandates and governance requirements. To ensure that RI was appropriately embedded in discussions and investment considerations, it was agreed that RI matters should be incorporated into the various monthly meetings as required. Given the move to professional sole corporate trustee, most of the training is carried out in-house and professional standards and knowledge are maintained by the independent trustee firm. This is supported by additional training from the Scheme's investment advisers as necessary.

Ongoing discussions with the Scheme's investment advisers enables the Trustee to remain up to date on best practice and the latest ESG developments. These discussions are used to review the appropriateness of the Scheme's existing responsible investment (RI) beliefs and policies.

The Trustee receives advice and support regarding ESG and climate-related matters from their Investment Adviser and Actuarial Adviser. The Investment Adviser is responsible for embedding climate-related risks and opportunities into investment decisions. The Trustee maintains an ongoing dialogue with the Sponsor to ensure all parties are aware of the current approach for assessing, managing and monitoring climate-related issues.

The Trustee oversees climate-related risks and opportunities relevant to the Scheme through its governance processes and maintains a governance document. This document summarises the key responsibilities for each party from a policy, strategy and monitoring perspective.

Roles and responsibilities in assessing and managing climate-related risks and opportunities

The below section outlines how different parties incorporate ESG considerations into their role and the methods the Trustee uses to assess each party.

Trustee

The Trustee is responsible for monitoring the implementation of the Scheme's RI policy. The Trustee is expected to incorporate RI considerations into its management of the Scheme's assets, identifying and managing ESG related risks and opportunities in all areas including asset allocation decisions, manager appointments and its monitoring of the Scheme's current investment managers. The Trustee will engage with their advisers and investment managers as appropriate to ensure they are sufficient educated on responsible investment issues.

Investment Advisers

The Scheme's Investment Advisers, Hymans Robertson, are responsible for assisting the Trustee to embed climate-related risks and opportunities into all investment decisions. They provide advice and training to the Trustee regarding regulatory requirements and are expected to incorporate RI considerations into any advice regarding any strategy changes or manager appointment. The Trustee reviews their investment adviser regularly and this review includes an assessment of their skills and experience for supporting the Trustee on climate-related issues. The Trustee has also set their investment adviser a set of objectives that are reviewed on an annual basis. These include a specific objective on assisting the Trustee in monitoring climate metrics and engaging with asset managers to assess climate-related risks and opportunities.

Actuarial Advisers

The Scheme's Actuarial Advisers, Aon, are responsible for identifying any RI considerations that should be incorporated into the Scheme's funding strategy. The Trustee reviews their actuarial adviser regularly and this review includes an assessment of their skills and experience for supporting the Trustee in mitigating climate-related risks from an actuarial perspective.

Investment Managers

The Scheme's investment managers are expected to integrate ESG considerations, to the extent possible, into their management of each of the Scheme's mandates. The managers are expected to provide frequent reporting on ESG topics and provide updates at the regular manager meetings.

Scheme sponsor

The Scheme's sponsor QinetiQ Group Plc maintains its own ESG strategy, objectives, and action plan. The Trustee aims to maintain an ongoing dialogue with the Sponsor to ensure both parties are aware of each other's approach in this area.

The below table sets out the key actions each party will take to manage ESG risks - including climate risks.

	Setting policy and governance structure	Education	Strategy	Monitoring
Trustee	Overall ownership of RI Policy and incorporation of RI into Scheme management. Assess all other parties against expectations and actions delegated to them.	Request further information from advisers and investment managers as appropriate to ensure they have the information and education required to fulfil their role.	Approve ESG related targets for the Scheme as a whole and individual investment mandates. Review the manager's ESG practices versus best practice and determine next steps based on materiality of that asset class in the long-term strategy. Review risks identified and ensure processes in place to manage / mitigate these risks.	Approve key RI metric reporting requirements. Consider ESG related targets for the Scheme as a whole and individual mandates as appropriate. Understand the investment advisers' rating processes for investment managers. Approve the Scheme's annual TCFD report.
Investment Advisers	Support Trustee in revising RI policy to reflect latest beliefs and outline the actions needed to achieve beliefs.	Advise Trustee on regulatory requirements.	Integration of RI considerations in review of strategy and risk management frameworks.	Provide information and views on investment manager's RI processes.

	Setting policy and governance structure	Education	Strategy	Monitoring
		Help identify and provide training as required.	Support the Trustee in determining ESG targets for the Scheme as a whole and individual mandates.	Carry out Annual RI Review. Preparation of the Scheme's annual TCFD report.
Actuarial Advisers	Support Trustee with update to policy focussing on actuarial aspects.	Help identify and provide training as required.	Incorporate RI considerations into funding and integrated risk management conversations.	
Investment Managers			Manage each mandate in line with agreed RI objectives and any agreed targets set by the Trustee. Identification of ESG risks and opportunities as part of their investment process. Effective stewardship of Scheme assets. Engaging with investee companies where appropriate and providing periodic updates to Trustee and investment advisers on key engagement topics.	Provide relevant RI reporting to Trustee. Provide updates on RI policies where relevant.
Scheme Sponsor	Inform Trustee of the Sponsor's RI objectives and key actions.			

Strategy

The climate-related risks and opportunities we have identified over the short, medium and long-term

We define climate risk to be the potential impact on future financial returns that may arise from climate change. Climate risk is typically split into two parts:

- Transition risk: the impacts that may arise from policy change and technological advancement; and
- Physical risk: the risk from changing weather patterns or the greater frequency/severity of extreme events

The policy response to a changing climate will present both risks and opportunities. Climate change is likely to be a material consideration to the delivery of our long-term objective. We are currently reviewing the different long-term objectives available to the Scheme and will adjust our definitions of short, medium and long-term following this review. We have currently defined short, medium and long-term as follows:

- Short term: In line with our actuarial valuation cycle - 3 years
- Medium term: long-term objective staging post – currently 5 years to 2028
- Long term: consistent with our long-term funding target date – currently 9 years to 2032

As the Scheme continues along its journey plan, the above timescales will be re-assessed over time. We are currently reviewing our long-term objective and will adjust our definition of "long-term" as appropriate in future reports. Through our risk assessment process and scenario modelling, we expect transition risks to feature more prominently over shorter-time periods. Over longer-term periods, we expect physical risks to feature increasingly. Both transition and physical climate risks will impact the Scheme during its lifetime. The table below sets out a summary of the key risks currently identified by the Trustee for each area of the Scheme's strategy.

Risk areas	Climate Risks			
	Identified Risks	Impact		
		Short term	Medium term	Long term
Investment	Managers do not take account of climate risks. Mandates are overly exposed to climate risk. Limited data from investment managers.	Low	Low	Medium
Funding	Longevity impact from climate change and potential uncertainties in the funding assumptions introduced by climate risk.	Low	Low	Medium
Covenant	Inability to keep pace with changing global policies from a climate change perspective. Sponsor not meeting climate targets.	Low	Medium	Medium

Please note that the level of risk is assessed after expected mitigating action.

Our assessment of climate related risks at a strategic level has remained unchanged from last year. However, we continue to monitor the impact of different climate change related risks through an integrated risk management lens and whether any additional mitigation steps need to be taken.

Climate risks by asset class

The table below summarises the key risks and opportunities identified and monitored by the Trustee. Although the risks and opportunities identified below are expected to remain broadly unchanged, the Trustee continues to engage with managers on identifying emerging risks and opportunities. The wording highlighted in bold within the below table captures developments since our last report.

<table>
<tr><th colspan="7">Climate risks</th><th>Opportunities</th></tr>
<tr><th rowspan="2">Asset Class</th><th rowspan="2">Climate Risk Category</th><th rowspan="2">Identified Risks</th><th colspan="3">Impact (RAG)</th><th rowspan="2">Mitigation</th><th rowspan="2">Identified Opportunities</th></tr>
<tr><th>Short term impact</th><th>Medium term impact</th><th>Long term impact</th></tr>
<tr><td rowspan="2">Private Equity</td><td>Physical</td><td>Droughts / floods

Sea level rises

Water stress / wildfires</td><td rowspan="2">Medium</td><td rowspan="2">Low</td><td rowspan="2">Low</td><td>Scenario analysis

Stress testing

Risk Appetite</td><td rowspan="2">Not applicable given run-off period and no plans to recommit to private equity.</td></tr>
<tr><td>Transitional</td><td>Policy changes.

Policy implementation differences across locations/industries.

Ability to influence / evolve legacy assets.</td><td>Active engagement with relevant stakeholders</td></tr>
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<tr><th>Short term impact</th><th>Medium term impact</th><th>Long term impact</th></tr>
<tr><td rowspan="2">Direct Lending</td><td>Physical</td><td>Extreme weather events – impacting specific industries.

Air quality / pollution / water contamination

Exposures to companies with long supply chains and risk of supply chain disruption.</td><td rowspan="2">Medium</td><td rowspan="2">Medium</td><td rowspan="2">Low</td><td>Proprietary ESG assessment tool

ESG sustainability linked loans

Carbon data requirements imposed for new investments</td><td rowspan="2">Identifying assets that stand to benefit from long-term transformative trends.

Focus on low-carbon investments.

Avoiding certain sectors expected to suffer because of climate risk.

Continued use of sustainability linked loans with ESG margin ratchets tied to specific portfolio company ESG targets.</td></tr>
<tr><td>Transitional</td><td>Lack of actual company climate data disclosure.

Technological development impacting business prospects

Regulatory changes making existing companies less attractive.</td><td>Active engagement with companies on net zero alignment

Monitoring and engaging with high-emitting sectors defined by the One Earth Climate Model</td></tr>
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<tr><th>Short term impact</th><th>Medium term impact</th><th>Long term impact</th></tr>
<tr><td rowspan="2">Real estate debt</td><td>Physical</td><td>Capital expenditure to repair damage caused by wildfires, floods or storms

Drought and extreme heat implications on operational costs.</td><td rowspan="2">Medium</td><td rowspan="2">Medium</td><td rowspan="2">Low</td><td>Instruct 3rd parties to undertake building survey and environmental risk assessment</td><td rowspan="2">Potential reduction to ongoing operational costs due to improved energy efficiency.

Given the Scheme’s current positioning, no further commitments are expected to be deployed into commercial real estate debt markets.</td></tr>
<tr><td>Transitional</td><td>Increasingly stringent government regulation and market defined standards on building energy and carbon efficiency (asset stranding risk).

Changing occupier requirements on building carbon and energy performance (asset stranding and rate of asset depreciation risk).</td><td>Monitor existing and forthcoming regulatory requirements

Equity cushion provides downside protection against depreciation risk

Continued due diligence and engagement on energy efficiency of buildings</td></tr>
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<tr><th>Short term impact</th><th>Medium term impact</th><th>Long term impact</th></tr>
<tr><td rowspan="2">Asset Backed Securities</td><td>Physical</td><td>Extreme weather events (e.g., wildfires, floods) increasing risk to collateral.

Policy and market risks are expected to rise in the next decade.</td><td rowspan="2">Medium</td><td rowspan="2">Medium</td><td rowspan="2">Medium</td><td>ESG questionnaires sent to every issuer

Use post code data to build picture of carbon emissions within residential mortgages

Geographical diversification within RMBS helps to mitigate the impact of climate risks</td><td rowspan="2">Range of new green ABS bonds in the market. Increase in number of 'Green' ABS deals conducted this year with expectation this will continue.

Emerging ‘brown penalty’ for older/inefficient residential homes in key markets for RMBS.</td></tr>
<tr><td>Transitional</td><td>Reputational risks</td><td>Liaising with all ABS managers on standardising and improving the quality of data</td></tr>
<tr><td></td><td colspan="6"></td><td></td></tr>
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Climate risks							Opportunities
Asset Class	Climate Risk Category	Identified Risks	Impact (RAG) Short term impact	Medium term impact	Long term impact	Mitigation	Identified Opportunities
Hedging Portfolio	Physical	Long term increases in temperatures generating pressure on the economy which would feed through to the mandate.	Low	Low	Medium	ESG assessment - creditworthiness of banks	Green gilts provide the mandate with a climate-related opportunity where the proceeds from the bonds they buy are specifically linked to the financing of green initiatives.
	Transitional	Policy and legal risks. Technology risk as no new carbon technologies developed. Government not meeting its climate objective				Engagement through banks and Department for Work and Pensions (DWP) Engaging with the government as appropriate	

Other assets held by the Fund

In addition to the asset classes captured within the above table, the Scheme also has an asset backed funding arrangement with the Company. This contract provides the Scheme with annual payments that increase in line with inflation based on specific criteria being met. We acknowledge that having this arrangement in place with the Company increases the reliance on the covenant and therefore we maintain regular dialogue with the Company to understand what actions are being taken to monitor climate-related risks and opportunities.

The Scheme also holds annuity policies with Scottish Widows and Legal & General. These assets are not considered relevant when determining the assets under management of the Scheme for TCFD purposes due to the limited influence that we have over the specific assets that the insurers choose to invest in. However, it is important that we understand how these insurers monitor and mitigate climate related risks and opportunities. Both Scottish Widows and L&G produce their own TCFD report that clearly outlines how they identify climate related risks and opportunities.

How climate-related risks and opportunities impact the Scheme's business, strategy and financial planning

The systemic nature of climate change risk has the potential to reduce returns across all asset classes. Equally, the need to transition to a low-carbon economy and the innovation which that will require presents several investment opportunities. Understanding how these investment opportunities align with the Scheme's other objectives will influence how the Scheme's investment strategy will evolve.

Over recent years we have dedicated considerable time and resource to ensuring that climate risk is appropriately embedded within our investment processes. This has largely been in the form of engaging with investment managers; scrutinising their processes and reporting and analysing the resilience of our strategy to climate-related risks. For example:

- The research team of the Scheme's investment adviser engages periodically with each of the Scheme's investment managers and the key conclusions are then summarised to the Trustee as part of the monthly workshop meetings. The main discussion points over the last 12 months have focussed on net zero progress; evolution of processes to keep pace with improving best practice and approach to tackle issues associated with Scope 3 emissions.
- Consolidated the Scheme's RI related governance documentation to ensure that the salient climate related risks can be monitored and mitigated.
- Reviewed and refined ESG and climate related risks within the objectives of the Trustee's investments advisers.

Looking ahead, the Scheme will continue to place a high degree of importance on identifying, managing and monitoring climate-related risks. This is evident by the Scheme's business plan and clear focus on responsible investment matters including climate change.

How resilient is our investment strategy to climate change risks?

Last year, we undertook climate scenario analysis based on the Scheme's assets and market conditions as at 31 March 2023 to test the resilience of the Scheme's investment strategy to climate risk. This analysis was done following the investment strategy review conducted by the Scheme's Investment Advisers. We decided to not re-run the analysis over the last 12 months as we do not believe the output will have changed materially, as the investment strategy has remained broadly static given the type of assets held within the portfolio. We continue to review the necessity of updating the analysis on an ad hoc basis as required.

Risk Management

The processes we use for identifying and assessing climate-related risks

As part of the Trustee's responsibility for the setting and implementation of the Scheme's RI Policy, the Trustee takes steps to identify and assess climate related risks. Furthermore, the Trustee monitors how the management of these risks is integrated into the overall risk management framework for the Scheme. ESG risks are identified as part of the following processes:

- **Individual mandates and investments –** The investment managers on behalf of the Scheme will undertake risk analysis at the individual asset level. This analysis will focus on existing climate-related risks and opportunities as well as identifying emerging risks. These risks will be identified via:
    - Regular reporting.
    - Manager engagement meetings.
    - Provision of relevant scenario analysis.
- **Investment strategy reviews -** the Trustee will consider ESG risks as part of regular strategy reviews that are carried out alongside each Actuarial Valuation and on an ad hoc basis as required. The Scheme's Investment Advisers are expected to highlight any key risks that are included within any potential investment strategy. As part of this work the Trustee will carry out scenario analysis to assist in the identification and measurement of climate-related risks in the Scheme's overall strategy.
- **Considering asset classes –** when assessing new asset classes, potential ESG risks will be assessed and discussed as part of the training provided to the Trustee. Key ESG risks will be considered when comparing alternative options.
- **Selection of investment managers –** when appointing new investment managers, the Scheme's Investment Adviser will provide information and their view on each manager's ESG policy and capabilities. Each manager will also be asked to provide information on their own ESG risk management processes as part of the selection process.
- **Valuation and covenant review –** the Trustee will consider ESG risks as part of the triennial Actuarial Valuation process ensuring that this analysis considers the funding, covenant and investments risks in an integrated risk management manner.

The process we use for managing climate-related risks

Management of climate-related risks has shaped our policies and processes. The Scheme's RI policy indicates the impact that climate risk can have on long-term returns and the importance of understanding how ESG factors can impact the Scheme's long-term objectives. The RI policy also outlines what expectations the Trustee has imposed on its investment managers with respect to embedding ESG considerations into their investment processes. The management of climate-related risks is achieved as follows:

- Engagement meetings (undertaken by Investment Adviser's research team and separate Trustee sessions)
- Discussions with Investment Adviser
- Climate Risk dashboard
- Risk register

We expect our investment managers to exercise good stewardship practices to help reduce climate-related risks.. At each engagement meeting, the manager is asked to provide case studies on their engagement and escalation approach and what actions are being taken to mitigate the key ESG risks facing the mandate.

Based on information provided by investment managers and the Scheme's Investment Adviser, climate-related risks are prioritised based on the following factors:

- Type of risk (transitional or physical)
- Materiality of risk (importance to asset class and significance within asset allocation)
- Likelihood of risk materialising (what threat does the risk event pose to the Scheme)

Once the priority order has been identified, the Trustee will then liaise with the necessary investment managers and request periodic updates as appropriate. Furthermore, the high priority risks will be the focus of attention at future engagement meetings. Once sufficient information has been obtained, the Trustee will determine what action is appropriate to manage the identified risk.

How our processes for identifying, assessing and managing climate-related risks are integrated into our overall risk management framework

The Scheme's risk-management framework comprises a risk register, included on the agenda at every governance meeting, alongside other supporting documentation. Once risks are identified, they are then evaluated based on the overall threat posed to the Scheme. This helps the Trustee build up a picture of the Scheme's risks more widely and where ESG risks sit in the overall risk management framework.

Risks that are deemed to be high in likelihood, impact, or both after allowing for mitigating controls are deemed to take priority. The Trustee expects that any action taken to manage climate-related risks should introduce an additional control to mitigate the likelihood of a risk occurring or reduce the impact of a risk should it occur.

When best practice ESG risk management techniques are clearly established for an asset class then the Trustee expects all other managers within the space to follow this approach. This is particularly important for emerging risks that are deemed to be high in likelihood or impact. The management of ESG risks is integrated into the Scheme's current processes in the following ways:

- Monitoring current investment managers / mandates
- Setting strategy and choosing asset classes
- Selection of investment managers
- Valuations and covenant reviews

The Trustee's expectations of the investment managers with regards to the integration of ESG risks are set out in the Scheme's Statement of Investment Principles (SIP). The Trustee monitors the ESG activities of all managers through regular reporting and meetings, as set out above.

The Trustee engages with current investment managers where risks have been identified to agree a plan of action. This may include more regular monitoring of mandates at higher risk.

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 and engage with the managers in this area.

Metrics and targets

Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process

We believe it is important to consider a variety of metrics, covering both forward and backward-looking metrics. We want the metrics monitored to be decision useful. We focus on metrics that provide information that help us better understand the risks faced and make informed decisions about the resulting actions to be taken.

This report focusses on the mandatory metrics which all pension schemes are asked to monitor and report against for TCFD purposes. We appreciate that no single metric is perfect and therefore we monitor a suite of metrics. This approach enables us to take a more holistic view of the risks facing the Scheme's investment strategy. This report focuses solely on carbon emission metrics, but we understand the importance of monitoring broader environmental, social and governance metrics when engaging with the Scheme's investment managers.

Given the importance of understanding forward looking actions plans for the underlying companies held within the Scheme's investment mandates, we are supportive of monitoring portfolio alignment metrics where sufficiently good quality data is available. We acknowledge that forward looking metrics can help us better understand the Scheme's carbon journey plan and how our investment exposure to climate-related risks and opportunities will evolve over time. The metrics considered within this report are summarised below:

Type	Metric	Measurement
Absolute Emissions Metric	Total Greenhouse Gas (GHG) emissions*	The volume of scope 1 and scope 2 emissions from the Scheme's assets – Measured in tons of CO2e
Emissions Intensity Based Metric	Carbon footprint	The volume of scope 1 and scope 2 emissions per unit of capital invested from the Scheme's assets – Measured in tons CO2e per $m invested
	Weighted Average Carbon Intensity (WACI) – assessment of the efficiency of portfolio carbon emissions	The volume of scope 1 and scope 2 emissions per unit of sales for each portfolio company, weighted by the size of allocation to each company within the Scheme's assets – Measured in tons CO2e per $m sales
Additional climate change metric (non-emissions based)	Data quality – A measure of the level of estimated and actual data available from the Scheme's managers	Measured per mandate - % of mandate for which we have actual, estimated or no data
Portfolio alignment metric	Alignment to Net-Zero	Measured as the % of portfolio at year end with specific Net-Zero targets

*Scope 3 emissions have been included within separate reporting where possible

Emissions data we have gathered so far

Over the last 12 months, data coverage and data quality continues to be the main engagement topic from a metric monitoring perspective – as outlined in our report last year, data availability continues to be in its development phase and further work is required to achieve the desired level of transparency and comparability. This is particularly true for the Scheme's illiquid managers whereby there has historically been limited appetite from companies to provide this information.

Furthermore, "best practice" from a methodology perspective is still to be formalised for specific sectors. Therefore, some managers are reluctant to share emission data given the uncertainty associated with the accuracy of the figures. Subsequently, where information is available, we have summarised the calculation methodology followed to reduce the ambiguity associated with the numbers.

Given the importance that the Scheme places on monitoring emissions data, there has been various discussions held with the Scheme's investment managers on their approach followed from an emissions data perspective. Some of the key recent engagement meetings have been summarised in the below table:

Date	Manager	Topics discussed
March 2024	Ares – private debt	Conclusions drawn from the Novata questionnaire and plans for future emissions reporting
March 2024	DRC – CRE Debt	Emission data availability
April 2024	Partners Group – private debt	Engagement with portfolio companies regarding driving sustainable practices and decarbonisation, manager actions to improve coverage of climate related forward-looking targets
June 2024	M&G – CRE Debt	Concerns over PCAF database output and traction from borrowers to provide actual data
September 2024	Adams Street – Private Equity	Data coverage progress, actions taken to improve data availability and reporting
September 2024	HPS – private debt	Persefoni reporting and plans to share data on alignment to net zero targets
September 2024	Insight – LDI / ABS	Emissions reporting within LDI and how post code analysis can be used for RMBS and CLOs, improvement of data availability
October 2024	Insight – synthetic equity	Emission reporting for equity derivatives and latest guidance issued by industry bodies

The below sections outline our conversations with managers from an emission data perspective. Where limited data is available, we have outlined how we have engaged with managers on this topic and the target timescales for managers to provide this information. It is important to note that we have focussed our attention on asset classes that we expect will form part of the Scheme's long-term investment strategy.

Private equity

The Scheme made commitments to private equity funds between 2007 and 2010. Private equity funds typically have a term between 12 and 16 years and therefore most of the capital has been returned to the Scheme with only the tail of the portfolio remaining.

Adams Street Partners

QinetiQ invests in 13 different private equity vintages managed by ASP. ASP has determined that due to low data coverage, they cannot report absolute carbon emissions or portfolio carbon footprint estimates at this time. However, Adams Street are starting to see an improvement in the coverage of absolute carbon emissions data due to increased availability of company fundamentals used in estimations from underlying companies. In addition, ASP is exploring an additional dataset that they believe will significantly improve the coverage of estimates, allowing for reporting of absolute emissions. The manager has confirmed that they will provide periodic updates to the Scheme and relevant commentary will be included in the Scheme's report next year.

The below table summarises the WACI information for the Scheme's private equity mandates managed by ASP:

Private equity vintages	*31 Dec 2022 WACI* (tCO2e per $1 million)*	*31 March 2024 WACI* (tCO2e per $1 million)*
2007 Non US Fund	141.7	121.4
2008 US Fund	90.7	91.2
2008 Non US Fund	115.3	98.2
2008 Direct Fund	273.7	287.5
2009 US Fund	111.6	113.6
2009 Non US Developed Fund	118.3	96.3
2009 Emerging Markets Fund	71.5	67.9
2009 Direct Fund	390.9	376.9
2010 US Fund	99.8	106.7
2010 Non US Developed Fund	185.3	151.9
2010 Emerging Markets Fund	69.2	66.3
2010 Direct Fund	254.9	306.8
Direct Co-Investment II Fund	1,254.7	1,351.3

*Weighted Average Carbon Intensity – Refer to Appendix 2 for full definition

The WACI across the Scheme's overall private equity portfolio managed by ASP is summarised in the below table. The table also outlines what types of data has been used to derive this WACI figure.

Metrics	*Adams Street private equity portfolio as at 31 March 2024*
WACI	328.84 tCO2e per $1 million
Data quality	Estimated = 84.7%; Unavailable = 15.3%

The WACI figure across the Scheme's private equity holdings with ASP has slightly increased over the last twelve months. The manager has confirmed that the increase is predominately attributable to increased WACI figures across Energy companies within the portfolio. The manager expects emissions to decrease on an absolute basis as these companies exit over 2025 and 2026.

The high WACI figure for the Direct Co-Investment II Fund is primarily due to an energy portfolio company representing 78% of the remaining portfolio — Baffin Holdings. ASP have outlined that they are targeting an exit in 2025 for this position.

	31 December 2022		31 March 2024	
	Weight	**WACI**	**Weight**	**WACI**
Business Services	5.6%	46.4	5.2%	31.4
Consumer	11.3%	78.2	11.0%	64.5
Energy & Natural Resources	20.8%	1,308.4	20.8%	1,401.1
Financial Services	6.3%	25.9	6.8%	20.9
Healthcare	7.8%	31.3	7.6%	26.4
Industrial	3.5%	97.6	3.0%	90.6
IT	43.2%	22.4	44.3%	21.6
Other	1.5%	45.5	1.3%	51.4

The private equity portfolio is in run off and therefore only the tail of the portfolio remains. ASP have confirmed their existing exit plans for the holdings within the Energy & Natural Resources sector and have outlined that they are actively exploring alternative exit options should they be sufficiently attractive from a financial return perspective. The above information solely focuses on WACI figures. ASP have outlined that to generate estimates for absolute emissions, they would need meaningful revenue data for a relatively high proportion of the overall portfolio, which they do not possess at present.

Synthetic equity

The Scheme's synthetic equity exposure comprises equity total return swaps and equity options. In June 2024, the Trustee concluded that they would retain their structured equity approach for another year and would review the appropriate implementation approach at the beginning of 2025.

Insight synthetic equity

Whilst it is relatively commonplace for emission data to be readily available for physical public equity mandates, there has been limited guidance released with respect to reporting emissions for equity-based derivatives.

Limited industry wide guidance has been issued on reporting carbon emissions for equity-based derivatives. Over the last 12 months, there has been increased discussions on whether it is appropriate to adopt a zero emissions approach for synthetic equity as this implementation approach still facilitates the market. However, it can be argued that the Scheme has no ownership of any underlying equity holdings and therefore no emission data should be attributed to the Scheme.

Through discussions with Insight, they flagged that as derivatives do not contribute to the financing of underlying issuers, they believe that they do not add or subtract from the carbon intensity of a portfolio. Therefore, they don't set portfolio targets in relation to carbon for derivatives. In addition, Insight has highlighted that they will continue to monitor whether industry bodies establish best practice with respect to reporting on equity-based derivatives and update their stance as appropriate.

Based upon the information and guidance available, the Trustee has not reported against emission metrics for the Scheme's synthetic equity mandate. We will continue to liaise with Insight to assess the appropriateness of providing emissions information for future reports.

Private debt

The nature of private debt investing means that emissions data has been challenging to acquire but the Trustee, with support from their investment advisers, has engaged with each manager to evolve their reporting and better monitor the emissions attributed to the companies held within the various private debt mandates.

HPS

HPS has worked with Persefoni, an ESG software vendor that specialises in climate disclosure, to estimate the carbon emissions of the investments held in the Scheme's private debt investments.

Persefoni has applied the Partnership for Carbon Accounting Financials ("PCAF") methodology to calculate estimated emissions from the investment activities of the underlying companies during the measurement period. The PCAF methodology is based on the Greenhouse Gas Protocol standards.

The analysis undertaken includes some approximations based on the industry / geography classification provided by HPS. The actual carbon emissions of the portfolio companies may be higher than the approximation derived from this methodology. The data included within the below table exclude Scope 3 emissions.

Metrics as at 31 December 2023	HPS SLF 2016 portfolio
Total carbon emissions	1,429.0 tCO2e
WACI	46.2 tCO2e/$M revenue
Data quality	Reported = 58%, Estimated = 42%

Metrics as at 31 December 2023	HPS SLF V portfolio
Total carbon emissions	7,120.8 tCO2e
WACI	62.8 tCO2e/$M revenue
Data quality	Reported = 48%, Estimated = 52%

HPS has confirmed that between 2022 and 2023, the total carbon emissions figure for SLF 2016 decreased due to the various positions they realised over the last 12 months. WACI for SLF 2016 decreased over the last 12 months because the majority of the exited positions had a higher carbon intensity than the weighted average of the portfolio. HPS has confirmed that for SLF 2016, the top 5 emitters contribute 80% of Scope 1 and 2 emissions for the overall portfolio – this emissions position is expected given the portfolio is currently in run off.

It is important to note that the WACI figure for HPS SLF V is also lower than the comparable leveraged loan index and meaningfully lower than the WACI figure for the comparable US High Yield index.

For most private credit investment opportunities, the manager includes questions concerning Net Zero alignment in HPS's ESG Checklists. Upon request, HPS can provide an extended Carbon Footprint Report for the SLF 2016 and SLF V vintages, which includes an analysis on the issuers in the portfolio against the high-emitting sectors defined by the One Earth Climate Model ("OECM"), and how many issuers in these sectors have a transition plan. HPS has confirmed that this reporting has evolved to reflect conversations that they have had with various investors on reporting requirements – this includes conversations that the Scheme has had with HPS.

Partners Group

Partners Group has collated TCFD information for their Sustainable Finance Disclosure Regulation (SFDR) Article 8 funds - which includes MAC VI & MAC VII. The Scheme made a commitment to the Partners Group

MAC IV private debt mandate and given the inception date of this fund; Partners Group is not intending to obtain SFDR Article 8 classification for this mandate.

Partners Group noted that they were unable to replicate the successful data collection process for Private Credit assets in MAC IV for the 2023 period, as they did in 2022. Partners Group had requested the data from each of their non-controlling assets but were unsuccessful in obtaining any GHG emissions data in response.

Reflecting on their inability to obtain any data on the underlying loans, Partners Group highlighted that they plan to give borrowers more time to complete the questionnaire and will be more engaged to ensure that responses are received in the coming year. Partners Group highlighted that they whilst they can request data from each non-controlling asset in the portfolio, they are unable to force them to gather and provide the GHG emissions data. Through discussions with the manager, the Trustee has reiterated the importance of obtaining emissions data and this will continue to be a key area of engagement from an RI perspective with the manager. The Trustee also acknowledges that the vintage is in run-off and therefore the number of underlying loans is reducing year on year.

Partners Group considered joining the Science Based Targets initiative (SBTi). While SBTi has released an initial framework for private equity, there is still no guidance for private debt. In particular, the framework presents challenges in fully addressing the complexities of private markets across asset classes such as infrastructure and credit sections. Therefore, Partners Group has chosen to implement the Net Zero Investment Framework (NZIF) as a more suitable approach. Developed by the Institutional Investors Group on Climate Change (IIGCC), the NZIF provides a structured framework for aligning their portfolio with net-zero emissions, offering comprehensive guidance for both direct and indirect investments.

Key elements of the NZIF implementation include:

1. **Portfolio Coverage Targets (PCTs):** In 2023, Partners Group set PCTs and interim targets for their Private Equity and Infrastructure portfolios in line with NZIF principles. They will refine these targets in 2024 to support decarbonization efforts across portfolio companies. Whilst not directly impacting the Scheme's private debt commitment, this illustrates that the manager is evolving their approach to align with best practice and helping overcome the challenges historically seen across private markets.
2. **Development Approach:**
    - Investment Manager Insights: Partners Group consulted investment managers to explore achievable carbon reduction paths by 2030.
    - Feasibility Analysis: Partners Group modeled various decarbonization pathways and trends, ensuring that targets are realistic and resilient.
    - Collaboration with Anthesis: Partnering with sustainability expert Anthesis helped Partners Group align their strategies with best practices for private markets.
3. **Active Ownership**: Partners Group use their influence to drive decarbonization at portfolio companies, aligning investments with net zero goals while managing dynamic portfolios through acquisitions and divestments.

Partners Group is also an active member in Initiative Climate International (ICI), a global community of private equity firms and investors that seek to better understand and manage climate risks and opportunities across private markets.

Due to limited governance rights, Partners Group's main sustainability goal for debt investments is predominantly risk mitigation. To ensure portfolio companies make progress on their sustainability goals, Partners Group use Sustainability-Linked Loans (SLLs). Given the inception date of MAC IV, the Scheme does not hold any SLLs but

Partners Group has structured loans in more recent vintages to including financial incentives for companies to reduce energy consumption, develop decarbonisation strategies and improve reporting. This illustrates their commitment to improve sustainability profiles and achieve specified ESG goals.

For the year to 31 December 2023, Partners Group was not able to provide a metric measuring the percentage of the mandate with climate-related forward-looking targets.

The Trustee Board, via their investment adviser, is continuing to engage with Partners Group on the provision of emissions data and other social and governance metrics.

Ares

Over the year to 30 June 2024, Ares confirmed that their second annual edition of the Ares EDL Portfolio ESG Data Program expanded to over 60 ESG metrics, which were collected using their ESG data software solution. Similar to last year, the completion rate of the ACE V portfolio was over 85%.

Ares expanded their metrics to align to evolving industry frameworks including the Principal Adverse Impact indicators ("PAIs") and the ESG Data Convergence Initiative ("EDCI"). The manager has noted that these metrics allow them to track the decarbonization progress of their portfolio companies in line with the Initiative Climate International ("iCI")'s Private Markets Decarbonization Roadmap ("PMDR"). The below dashboard includes a selection of metrics where Ares had sufficient, internally consistent data for ACE V. The data is as of 31 December 2023.

88% COMPLETION RATE	26% FEMALE EXECUTIVES	19% UNADJUSTED GENDER PAY GAP	20% ANNUAL ATTRITION	76% EMPLOYEE SURVEY
5.9 NUMBER OF BOARD MEMBERS	0.8 NUMBER OF WOMEN BOARD MEMBERS	14% PERCENTAGE OF WOMEN BOARD MEMBERS	47% AT LEAST ONE WOMAN BOARD MEMBER	78% CODE OF ETHICS
90% CODE OF CONDUCT	94% DATA PRIVACY POLICY	89% CYBER POLICY	61% ESG POLICY	59% DEI POLICY

Since our last report, Ares launched the Ares Climate Transition Program which focuses on helping companies take the necessary action to make a significant step forward in climate change strategic planning. As part of this program, Ares partnered with ESG-focused software vendor, Watershed, to improve the increase data coverage.

The manager has also provided Scope 1, 2 and 3 emissions data alongside a data quality score using the Partnership for Carbon Accounting Financials ("PCAF") framework designed to facilitate data transparency. The score, which measures the reported emissions, physical activity-based emissions and economic activity-based emissions, ranks from one as the highest quality, most granular data source available to five as the lowest credibility data source based on top-down estimates. This is shown in the table below:

Metrics as at 31 December 2023	ACE V Emissions (tCO2e)	Data quality
Scope 1	6,470.4	2.4
Scope 2	6,986.9	2.5

Commercial real estate debt

The Scheme has implemented a commercial real estate debt portfolio via two different managers. The nature of commercial real estate debt investing means that emissions data is not readily available and the vast majority of emissions are classified as Scope 3. The Trustee, with support from their investment advisers, has engaged with each manager to understand what actions they undertake to assess environmental performance and how this can be integrated into regular reporting.

M&G

The Partnership for Carbon Accounting Financials (PCAF) launched its European building emission factor database in February 2022. In March 2023, PCAF published some guidance on emissions reporting within real estate which has provided some helpful clarification in areas which was previously highly subjective. Specifically, it states that all emissions should be classified as Scope 3 emissions as Scope 1 and 2 emissions are not applicable for this asset class. This indicates that when emissions data for this mandate becomes available, it will not be directly comparable with the emissions data shared by the Scheme's other investment managers.

Following receipt of the guidance, M&G explored the appropriateness of providing estimated emissions figures for real estate loans. However, on sense checking the outputs from this exercise, they were not comfortable with the reasonableness of the estimates and therefore are not willing to share estimated data externally. Therefore, M&G solely focus on actual data where available. **We continue to believe that M&G should proactively engage with borrowers to acquire as much actual data as possible**

M&G reiterated that real estate lenders do not have direct control over the properties they finance and do not have the ability to capture emissions data directly themselves. As such, lenders are dependent on the level of data that is collected by borrowers to obtain this information. M&G's engagement with various borrowers has shown that they are currently not in a position to be able to provide this data.

As REDF VI is no longer actively investing, there are no reporting requirement for the loans remaining in the portfolio. Through our discussions over the last 12 months, M&G highlighted that the point in the investment process where lenders have the greatest potential to try and influence borrower activity is at origination. Therefore, for newer commercial real estate debt vintages, M&G are embedding objectives to improve EPC ratings and having a minimum allocation to sustainability linked loans.

The nature of the asset class means that current carbon emissions data is not readily available. However, the Trustee will continue to engage with the manager to improve their reporting disclosures as a priority .

DRC

When engaging with the investment manager on emissions data, DRC has stated that they do not hold any of the carbon emissions data for the CRE debt mandate at present.

DRC has stated that emissions from the CRE debt mandate does not fall into Scope 1 and Scope 2 requirements – instead all emissions would be classified as Scope 3. Given the Scheme's focus on Scope 1 and 2 emissions, any future reporting will not be directly comparable with the information supplied by the other managers.

Last year, DRC stated that they were gathering data for new investments on greenhouse gas emissions, energy efficiency and water pollution. Recent engagement with the manager has confirmed that they are expecting to mobilise a new data platform for debt in early 2025 which will contain some of the metrics previously stated.

On net zero, DRC has indicated that they intend to set energy reduction targets across all assets. However, this commitment only applies to assets in new commercial real estate debt funds that they manage.

The manager has previously illustrated that they believe they are not obligated to provide carbon emissions data. The Trustee plans to continue to engage with the manager with a particular focus on the new data platform that is expected to be launched.

LDI

The Scheme's LDI portfolio is designed to manage interest rate and inflation sensitivity associated with the Scheme's liabilities. Subsequently, the Scheme purchases a combination of physical fixed and index-linked government bonds to hedge against movements in interest rate and inflation markets. In addition, the Scheme utilises derivatives to obtain the desired exposure in a capital efficient manner.

Insight currently provided quarterly metric reporting calculated on gilt exposure held in the LDI portfolio. The latest information available is summarised in the below table:

30 June 2024	Market value of long exposure (£m)	Absolute emissions tCO_2e
Funded gilts only	409	68,416
Gilts on repo / TRS	296	49,555
Combined gilt exposure	706	117,971

Metrics as at 30 June 2024	LDI portfolio*
Total carbon emissions	117,971 tCO2e
Carbon footprint	167.1 tCO2e / market value of gilts in issuance
WACI	98.1 tCO2e / GK$m GDP
Data quality	Actual data = 100% reported
Net-Zero target	N/A

*The climate data for the LDI portfolio solely considers government bonds; index-linked government bonds and gilt derivatives. Physical gilts posted out as collateral are included in gilts valuations whilst gilts received as collateral are excluded. Derivatives, cash and short gilt positions has been excluded. The data quality metric is unverified by a third party.

Given the nature of the assets held in the LDI portfolios, the funds are performing in line with expectations from an emissions perspective. Insight also provide analysis on UK emission trends to provide some context to the emissions data reported on a quarterly basis.

Since the last TCFD update, Insight has also included Scope 1 and 2 absolute carbon emissions data using the Partnership for Carbon Accounting Financials (PCAF) method. We have included this in the table below:

30 June 2024	Market value of long exposure (£m)	Absolute emissions tCO_2e using PCAF method
Funded gilts only	409	59,002
Gilts on repo / TRS	296	42,701
Combined gilt exposure	706	101,848

Asset backed securities

The Scheme has implemented a collateral waterfall framework which includes asset backed securities (ABS). These assets are held within the investment strategy to support the Scheme's LDI portfolio and act as the first port of call to meet any collateral calls that might materialise under a rate rising environment.

In last year's report, we articulated the complexity associated with integrating ESG analysis into securitised markets and the challenges in obtaining emissions data. Since that report, Insight has continued to develop their offering and now are able to report carbon metrics for specific sub asset classes such as UK RMBS.

To determine data for UK RMBS, Insight has undertaken post code analysis and liaised with various industry bodies to help establish best practice within this space. These carbon metrics are limited to total GHG emissions as a lack of 'sales' results in there being no WACI or carbon footprint analysis. As there are no reliable external data providers, Insight calculated emissions based on issuer 'data tapes', and public data sources – e.g., provision of energy performance certificates (EPCs) by originators and other publicly available information by postcode. The Trustee acknowledges that this approach does introduce a degree of estimation but is comfortable that it still provides a good approximation given the narrow focus.

Insight has also provided an update on carbon reporting for CLOs and other sub asset classes included within the asset backed securities mandate held by the Scheme. Carbon reporting for CLOs are in the final stages of validation (that aims to follow PCAF methodology) and Insight expect these to be ready for client reporting towards the end of 2024. There has been a significant degree of engagement at the annual ABS conference with positive feedback from originators to collaborate and enhance their ESG reporting and improve completion of Insight's proprietary questionnaires. Insight has noted that they will continue to evolve their ESG questionnaire to increase originator coverage and ensure questionnaires are bespoke by asset class to new issues.

Insight will continue to work towards greater reporting transparency via regular ESG updates and individual case studies. To mitigate the data challenges, Insight has confirmed that they intend to engage directly with originators, work with industry working groups such as ICMA and lobby with regulators included ESMA to improve data standards and increase transparency.

The targets we have set to manage climate-related risks and opportunities

In last year's report, the Trustee highlighted that they were looking to target an overall portfolio coverage of at least 50% across the Scheme's direct lending mandates. The strong progress that has been made by HPS and Ares over the last 12 months has meant that emissions data is now reported for most of their underlying loans. Whilst Partners Group has not been able to provide emissions data for this report, this mandate is in run off and therefore represents a small proportion of the Scheme's overall direct lending allocation. Therefore, across the Scheme's direct lending allocation, the Scheme has met the emissions data coverage target. Looking ahead, the Trustee plans to consider what additional data quality and data coverage targets are appropriate to set.

The Trustee has also agreed to adopt a net zero target of 2050. This approach was consistent with the RI beliefs of the Scheme and the approach adopted by the Sponsor. Last year's report highlighted that an interim target was also going to be implemented to reflect the Scheme's target time horizon. Given the introduction of the new sole trustee model, it was agreed that this interim target would be revisited following long-term strategic conversations with the Sponsor were finalised. We will include further detail in next year's report as appropriate.

Appendix 1 – Scenario Analysis – Results and assumptions

Scenarios considered

The scenario analysis was carried out using a model produced by the Scheme's Investment Adviser. The scenario analysis considered the impact 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:

Immediate Transition	Delayed Transition	No/limited transition
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. Assumes a high likelihood of achieving an emissions trajectory consistent with limiting the average global temperature increase to at or below 2°C. The intensity of the disruption is high and immediate.	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. Assumes a high likelihood of achieving an emissions trajectory consistent with limiting the average global temperature increase to at or below 2°C. The intensity of the disruption is high and in the medium term.	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. Assumes a very low likelihood of achieving an emissions trajectory consistent with limiting the average global temperature increase to at or below 2°C. The intensity of the disruption is very high and in the long term.

Scenario analysis results

The below analysis considers the probability of success of being fully funded on a gilts flat basis over different time horizons and assumes that the current investment strategy remains in place throughout the projection period. At the time of writing this report, the Trustee has agreed to provisionally target being fully funded on a solvency basis by 2032. Hymans Robertson has estimated that this objective broadly equates to being 102% funded on a gilts flat basis by 2032. Therefore, the scenario analysis reflects this probability of success target over a 10-year period.

Probability of being 100% funded on gilts flat basis			
	Short term **3 years**	**Medium Term** **6 years**	**Long term** **10 years**
Current strategy	**Base: 23%** Immediate Transition: **20%** Delayed Transition: **25%** No/limited transition: **23%**	**Base: 51%** Immediate Transition: **46%** Delayed Transition: **48%** No/limited transition: **52%**	**Base: 76%** Immediate Transition: **74%** Delayed Transition: **73%** No/limited transition: **73%**

Furthermore, the Trustee has agreed to incrementally de-risk the investment strategy by transitioning from illiquid credit into liquid credit once distributions become available. Therefore, additional analysis was undertaken to ascertain how different climate scenarios impact the probability of success of achieving the long-term objective allowing for the planned long-term de-risking of the investment strategy. The output has been shown in the below table:

Probability of being 102% funded on gilts flat basis		
	Current strategy	**Planned de-risking**
Long term 10 years	**Base: 74%** Immediate Transition: **73%** Delayed Transition: **71%** No/limited transition: **71%**	**Base: 63%** Immediate Transition: **61%** Delayed Transition: **60%** No/limited transition: **62%**

Under the three climate scenarios analysed, there was minimal deviation in the expected probability of success of achieving the Scheme's long-term objective of being 102% funded by 2032. This provided reassurance that the investment strategy is relatively resilient under negative climate scenarios.

The below table looks at how the downside risk for the Scheme differs under different climate scenarios.

Average Funding level of 5% worst case modelling outcomes			
	Short term 3 years	**Medium Term 6 years**	**Long term 10 years**
Current strategy	**Base: 66%** Immediate Transition: **63%** Delayed Transition: **64%** No/limited transition: **65%**	**Base: 66%** Immediate Transition: **65%** Delayed Transition: **63%** No/limited transition: **64%**	**Base: 68%** Immediate Transition: **65%** Delayed Transition: **64%** No/limited transition: **66%**

The Trustee is currently reviewing the different long-term objectives available to the Scheme and will adjust their definitions of short, medium and long-term following this review. As the Scheme continues along its journey plan, the above timescales will be re-assessed over time. Therefore, the Trustee will adjust their definition of "long-term" as appropriate in future reports.

The analysis has been conducted by Hymans Robertson. Their Economic Scenario Service (ESS) model produces stochastic projections for a wide array of asset class returns and other economic factors, which can be used as part of any quantitative risk management exercise. The ESS models are regularly updated to capture the latest market conditions and are maintained and documented by a specialist team. The models don't make explicit assumptions for climate change or any other economic/political factors like trade wars, pandemics, etc.

However, climate change can be factored in indirectly by weighting the existing ESS outputs to 'tilt towards' possible climate scenarios. For each climate scenario, each of the 5,000 trials run for the ALM exercise is assigned a specific weight – one weight per trial per model calibration date. Weights are determined to achieve higher volatility in the periods specified. In each scenario (immediate transition, delayed transition and no/limited transition), a disruptive period of high volatility is assumed. This disruption is either linked to the response to climate risk (transition risks) or the effects of it (physical risks). The specific volatility criteria used for each of the scenarios is summarised in the below table:

ESS input	Volatility criteria			
	Year 1-5	Years 6-10	Years 11-15	Years 16-20
Immediate Transition	Very high	Moderate	Moderate	
Delayed transition		Very high	High	
No/limited transition			High	Very high

The impact of climate change on longevity and sponsor covenant is **not** included in the analysis.

Appendix 2 – metric explanation

Absolute emissions
The formula for this metric attributes a share of each underlying investment's GHG emissions to the Scheme based on the Scheme's share of that investment, as follows:

$$\sum_{i=1}^{i=n} \frac{Scheme's\ value\ of\ asset_i}{Total\ equity\ and\ debt\ of\ asset_i} \times GHG\ emissions\ of\ asset_i$$

This metric is dependent on the issuer's disclosure of its GHG emissions. Whilst this metric is relatively straightforward to calculate and communicate, there is no normalisation between funds. Subsequently, it is important to consider carbon intensity metrics.

GHG 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 as it covers emissions associated with business travel, procurement, production of inputs, use of outputs, waste and water.

Carbon footprint
The carbon footprint is effectively the total GHG emissions normalised by the size of the portfolio. The formula used for this metric is as follows:

$$\frac{\sum_{i=1}^{i=n} \left(\frac{Scheme's\ value\ of\ asset_i}{Total\ equity\ and\ debt\ of\ asset_i} \times GHG\ emissions\ of\ asset_i \right)}{Current\ portfolio\ value}$$

This metric provides the Scheme with the ability to monitor relative carbon intensity at an overall strategy level, sector level and company level. However, this metric does not take into account differences in the size of companies and hence the importance to monitor this metric in conjunction with Weighted Average Carbon Intensity (WACI).

WACI
The weighted average carbon intensity measures the exposure to carbon intensive assets expressed in tons of CO2e per millions of pounds of revenue. The formula used for this metric is as follows:

$$\sum_{i=1}^{i=n} \left(\frac{Scheme's\ value\ of\ asset_i}{Current\ portfolio\ value} \times \frac{GHG\ emissions\ of\ asset_i}{Issuer's\ revenue_i} \right)$$

This metric relies on historical carbon data and analysis and therefore is backwards looking. This means that it doesn't take into account any action plans that companies have agreed to reduce their carbon emissions or achieve environmental objectives. Therefore, this metric needs to be reviewed in conjunction with forward looking metrics.

Portfolio alignment – Science Based targets
The proportion of the portfolio at year end whereby a specific Net-Zero target has been set.

Data quality

This metric measures the proportion of the portfolio for which high quality data is available. This looks at the proportion of the portfolio whereby emissions data has been verified, reported, estimated or unavailable.