De La Rue Pension Scheme – Report in respect of TCFD for the Scheme year ending 05 April 2023

Introduction

This report sets out the approach of the Trustee of the De La Rue Pension Scheme (the Scheme) with regard to assessing, monitoring and mitigating climate-related risks in the context of the Trustee's broader regulatory and fiduciary responsibilities to members.

We (the Trustee) believe that climate change is a systemic risk and an immediate concern. In order to ensure a sustainable future and to safeguard economic growth, concerted global action is required to tackle the climate crisis. The Scheme 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.

We support any initiative that helps improve disclosures and enhance 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've taken 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. Therefore, we support the TCFD recommendations. From 1 October 2021, pension schemes above a certain size (£1 billion) have been required to comply with the TCFD requirements for pension schemes. These requirements applied to the Scheme from 1 October 2022. This is the first TCFD Report produced for the Scheme in line with these requirements.

Background

The 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 managing climate-related risks and opportunities. Guidance was also released to support all organisations in developing disclosures consistent with the recommendations, with supplemental guidance 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. These recommendations will also help to demonstrate responsibility and foresight in consideration of climate issues, leading to smarter, more efficient allocation of capital, while smoothing the transition to a more sustainable, low-carbon economy. The UK Government also issued regulations under the Pension Schemes Act 2021 that require certain schemes to prepare a TCFD report.

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 Task Force's 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 representing core elements of how organisations operate: governance, strategy, risk management, and metrics and targets. The four overarching recommendations are supported by disclosures that build out the framework with information to 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 in terms of the four pillars:

- **Governance**: The Scheme's governance and oversight around climate-related risks and opportunities.
- **Strategy**: The actual and potential impacts of climate-related risks and opportunities on the Scheme's strategy and financial planning.
- **Risk management**: The processes used by the Scheme 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'll continue to monitor this through our regular reporting and ongoing dialogue with the Scheme's managers.

Report summary

Climate change – an overview

Climate change refers to a shift in average weather conditions, such as temperatures and weather patterns, across the world over time. Scientific evidence shows that human activity is responsible for most of global warming over the past 200 years. As a result, the world is warming faster than it has for thousands of years. The average temperature of Earth, or global temperature, is now over 1°C higher than it was in the late 1800s (also known as pre-industrial levels). An increase in global temperature is not the only thing we can expect as climate change occurs. The physical impacts of climate change include droughts, water scarcity, rising sea levels and wildfires. These will affect us in various ways, from agriculture and food supply to floods, migration and conflict over natural resources.

World governments have started to respond to climate change, with many becoming signatories to the 2015 Paris Agreement, which commits to keeping the global temperature to well below 2°C higher than pre-industrial levels, and ideally to no more than 1.5°C higher than pre-industrial levels.

Signatories have agreed to implement actions to reduce greenhouse gas (GHG) emissions across the globe. These efforts are set to strengthen in the coming years, as the world transitions to a low-carbon economy by eliminating as much fossil-fuel use as possible, with the goal of achieving a net zero economy by 2050. Despite this commitment, the world is expected to reach a global temperature of 4°C above pre-industrial levels, which has catastrophic implications for the environment and society.

The Scheme and our objectives

Our primary objective as Trustee is to invest the Scheme’s assets so that they – together with contributions from De La Rue plc (‘the Sponsor’), as required – are sufficient to pay all benefits on time and in full to members and beneficiaries of the Scheme. We act in members’ and beneficiaries’ best financial interests by seeking the best return that’s consistent with a prudent and appropriate level of risk.

How climate change may impact the Scheme’s objectives

Investors, including our pension scheme, are exposed to both climate-related risks and opportunities. We also have a large part to play in supporting the transition to a low-carbon economy and to ensure that the world adapts to the physical impacts of climate change. We can do this by ensuring that the companies we invest in also support the transition to net zero and are otherwise resilient to climate-related impacts.

We recognise that climate change represents a funding risk within the specific timeframe that we’re concerned with. This is the context in which we undertake our assessment of the risks and opportunities from climate change. In practice, it means that we aim for resilience of the Scheme’s strategy and funding, whatever path the world follows in tackling climate change.

The Scheme’s current funding position and future cashflows

The Scheme is a closed pension scheme, which means that new entrants are not accepted. Additionally, the Scheme is closed to future accrual, which means that there are no active members currently accruing pension scheme benefits.

Benefit payments to members are currently around £40 million per year. They are projected to rise to close to £50 million per year by 2030 before declining over the following 50 years.

At the most recent triennial valuation, as at 5 April 2021, the Scheme had a funding level of 90% on the statutory basis (the Technical Provisions basis), with the value of the assets equal to £1,051 million and the liabilities on the Technical Provisions basis equal to £1,171m. As at

31 March 2023, the funding level was 88%, with assets of £708 million and liabilities of £803 million.

Climate-related risks – the member perspective

It's also worth highlighting the question of climate-related risks from the perspective of the Scheme's members. As the Scheme is relatively well funded and benefits from continued support from the Sponsor, the Scheme's members are mostly protected from the effect of any investment underperformance or related climate-change risks. This is because we'd look to the Sponsor to restore the funding position through additional contributions should these impacts manifest and affect the Scheme's position.

This report

We appreciate that this report is long, and that the subject matter included is complex, using technical terms and concepts that members may be reading about for the first time. That's why we've included a high-level member summary below, with page 7 onwards providing full detail on our climate-risk disclosures for the year ended 5 April2023, as well as a glossary of terms in Appendix I.

Governance

We consider climate change to be a key risk to the Scheme and so have embedded climate-related issues across our strategic decision-making, trustee-training activities and wider governance processes.

We are ultimately responsible for oversight of all strategic matters related to the Scheme. This includes approval of the governance framework for the Scheme, as well as how it pertains to climate-related issues, including the oversight of climate-related risks and opportunities. We discuss climate-related risk, responses and reporting regularly, and we receive training on climate change and responsible investment (RI) to ensure that we have the knowledge and understanding to make informed decisions.

Maintaining high standards of governance is a crucial part of our duty in managing the Scheme. Several parties (committees, investment managers, advisers) feed into our management of the Scheme, and we, therefore, take care to ensure that these are the appropriate parties to do so.

We've agreed a Climate Change policy and beliefs that set out the key roles and responsibilities for the Scheme with respect to these issues. The Terms of Reference (ToR) for our committees and broader governance documentation also take ESG and climate-related issues into account

Strategy

The Scheme's strategy across the key areas of funding, investment and covenant has been assessed in terms of the potential climate-related risks and opportunities that may arise over the short, medium and long term. We've also defined these short-, medium- and long-term time horizons to establish clarity across this assessment, as well as other activities such as scenario analysis and target-setting.

Within our investment strategy, we've also spent time identifying and discussing climate-related risks and opportunities specific to each mandate. We recognise that these climate-related risks and opportunities can be addressed and managed in different ways for different asset classes, and we'll bear this in mind as we take forward agreed mitigation actions.

To test the resilience of the Scheme's strategy to climate risk, we've carried out climate scenario analysis, considering the Scheme's assets and market conditions as at 28 February 2023 and liabilities projected from the 5 April 2021 valuation. The results of this scenario analysis show that the Scheme's expected trajectory is unlikely to be significantly affected by any of the three climate scenarios versus the base case. The outputs suggest that across the scenario modelling in the short, medium and long term there is, at most, a 5% difference between the base case and the scenario results when considering the likelihood of success of the Scheme. While any negative impact would not be welcome, and an impact of up to 5% is not ideal, this is not a particularly significant figure in comparison to other risks to which the Scheme is routinely exposed, such as broader market changes. Thus, we are satisfied that the results of the scenario analysis suggest that the Scheme is resilient to climate-change risk.

Risk management

Overall responsibility for risk, including climate-change risk, lies with us, given the interconnectedness of the risks to the Scheme's strategy across funding, investment and covenant.

As we consider climate change to be a material systemic risk and an immediate concern, addressing climate-related risks is an integral part of our approach to risk management. We consider climate risks as part of our broader approach to managing risk within the Scheme and as part of our wider activity – for example, when we carry out a strategy review or when we engage with investment managers. Where it's relevant to do so, we'll further embed climate risk into our processes and activity.

Our risk-management processes have continuous monitoring via our monthly covenant and investment and funding working group reporting. This includes maintaining a risk register, monitoring of IRM metrics and, further to our work this year, a specific climate-related risk dashboard. We monitor and maintain these to ensure we appropriately capture all material risks to the Scheme – of which climate risk is one. Climate risk will also be informed by our scenario analysis, alongside the climate-related metrics we gather for the Scheme's assets.

Metrics and targets

To inform our decision-making, and to meet the requirements set out for the Scheme under TCFD, we've selected and measured a number of climate-related metrics.

However, our choice of climate metrics is still evolving. Due to the immaturity of reporting, and because the methodologies used to calculate the data are still in their infancy, we acknowledge that while these metrics are helpful in terms of understanding the Scheme's current position, the data requires careful interpretation. We've set a target for the Scheme on the portfolio alignment metric ie to increase the % of the assets we hold that have net zero targets in place.

The metrics we've chosen and the target that we've set will be reviewed as appropriate, and we'll report additional data and metrics as the quality and coverage improve.

Governance

Introduction

In this section we report on the governance arrangements in place during the Scheme year ended 5 April 2023. For context, a decision was taken to appoint a sole professional corporate trustee to replace the existing trustee board in early 2023, and this led to a restructuring of the Scheme's governance arrangements. In particular, the new Trustee has assumed full responsibility for the role previously undertaken by the Scheme's Investment Committee, including oversight of the Scheme's climate-related risks and opportunities. Some of the processes may change slightly as a result of this move, but this report focuses on the main governance processes and approaches taken during the year ended 5 April 2023.

Disclosure 1: Describe the Trustee's oversight of climate-related risks and opportunities.

We're aware of climate change and its potential impact not just on the environment but on the Scheme and member outcomes. We've acknowledged this by building climate risk and opportunities – as well as other climate-related issues such as policy directions – into quarterly training, beliefs and wider governance policies and processes. The above relates to actions taken by the Trustee Board during 2022–2023. With the appointment of a Sole Trustee, the policies and beliefs remain in place, with ongoing review of current governance and climate-related issues.

Trustee training

We've undertaken training on climate change and broader RI topics both prior to and during the Scheme year to 5 April 2023. Notably, we received training on climate-related metrics and targets in December 2022, with broader training in April 2023 on TCFD requirements, including governance, strategy and scenario analysis, risk management and metrics and targets.

Further training will be undertaken as required, to maintain suitable knowledge and understanding of the topic and how it applies to the Scheme.

Investment beliefs

We undertook a climate-related investment beliefs workshop during the year at the Q2 Trustee meeting. Following this meeting, the Trustee's climate beliefs were discussed, agreed and then finalised.

These beliefs are documented in a Climate Change Beliefs document and referred to as part of the Trustee's broader investment beliefs in the Scheme's Statement of Investment Principles. These can be found on the De La Rue pensions website.

We expect to review other Scheme documentation, including the objectives and decision-making framework, to embed these beliefs within the Scheme's wider governance.

We plan to review these beliefs annually at a high level, with a more in-depth review on a three-year basis.

Climate Change Policy

We've prepared and agreed a formal Climate Change Policy for the Scheme that outlines our approach to climate-related issues and provides further details on oversight of climate risks and opportunities. The policy also sets out roles and responsibilities relating to climate-related issues and how these are brought to our attention. This includes ensuring all regulatory requirements are met and that the Scheme's governance processes are sufficient as part of the Trustee's broader responsibility to ensure the proper management of ESG-related risks.

Governance policy and structure

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 we use to assess each party are set out in this document. Trustee effectiveness reviews are carried out periodically, which include assessment of the governance structures in place.

There are various responsibilities delegated to the investment managers of the Scheme's assets. We monitor these asset managers on an ongoing basis, with a specific focus on climate-related issues. Our investment adviser assists with the monitoring of the investment managers, including rating their approach to climate-related issues. Further details on these responsibilities are also included under Governance disclosure 2.

This includes delegating the formal monitoring of the Scheme's investments to the Scheme's Investment Committee, who met regularly during the year to discuss the investment objectives, investment management structure and policy direction of the Scheme's assets, including the overall RI strategy of the Scheme and its implementation.

As explained above, the Trustee (as a result of the sole trustee model) has assumed full responsibility for the role previously undertaken by the Investment Committee. The following comments set out the approach before the sole professional corporate trustee was appointed.

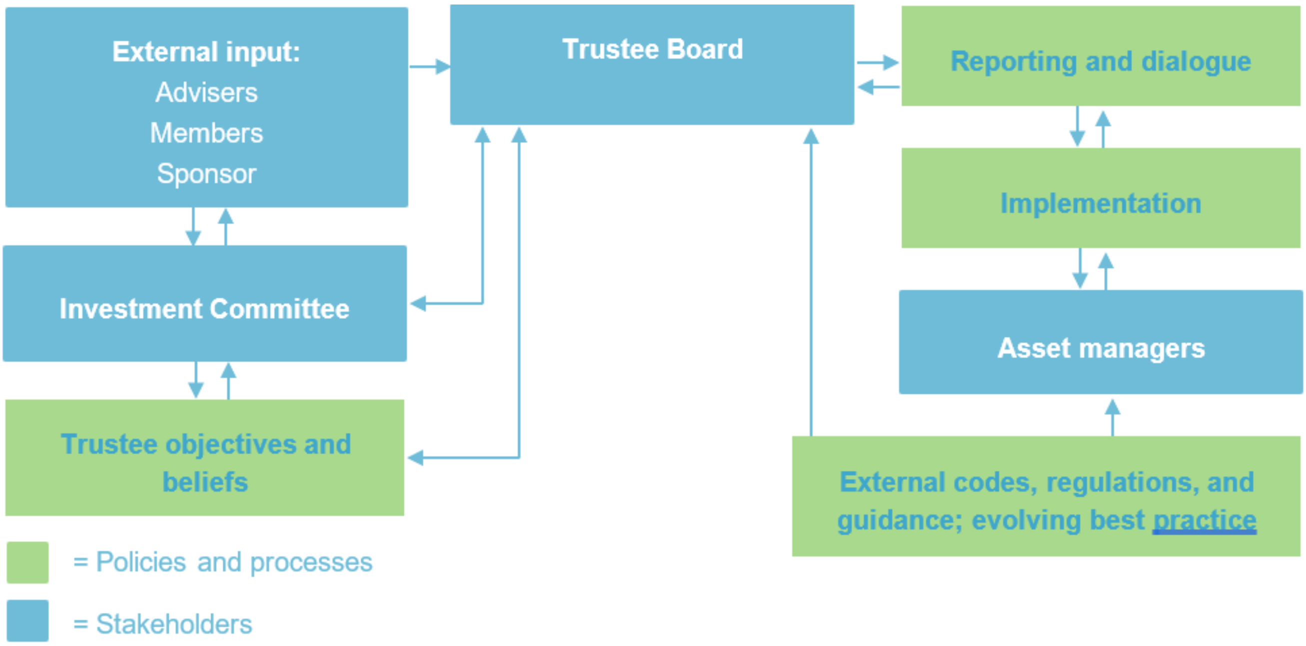
Responsibility for oversight of the Scheme's climate-change policy was delegated to the Investment Committee, with roles and responsibilities outlined in the ToR. The Investment Committee received advice and support regarding ESG and climate-related risks and opportunities from its investment and actuarial advisers, Hymans Robertson. As part of their work, the Scheme's advisers also identify climate-related risks and opportunities for the Scheme and report to us as appropriate.

We recognise that the overall responsibility for managing the Scheme, including managing the Scheme with respect to climate-related issues and oversight of any delegated responsibilities, lies with the Trustee.

The Scheme's Sponsor maintains its own sustainability report and plan. We maintain an ongoing dialogue with the Sponsor to ensure both parties are aware of each other's approach in this area. We ensure those issues relevant to the Scheme are considered where appropriate and aim to ensure synergy between the Scheme and the Sponsor's approach.

The governance structure of the Scheme during the year and key relationships are illustrated in the chart below. Following the move to Sole Trustee, this structure has changed somewhat, with the Investment Committee's remit being absorbed into the Trustee's overall remit.

However, for the majority of the reporting period in question and decisions made during this period, the following structure was in place:



Disclosure 2: Describe the Trustee’s role in assessing and managing climate-related risks and opportunities.

Numerous parties have roles in the Scheme’s management and incorporation of RI, particularly climate-related risks and opportunities. These parties and their role in the Scheme’s overall approach to climate-related issues, including the assessment and management of climate risks and opportunities, are set out below alongside the methods we use to assess each party.

The Scheme’s climate-change policy also notes those individuals and organisations (including our advisers) that have oversight, accountability and management responsibilities for climate-related risks and opportunities. We take an active role in assessing and reviewing the Scheme’s advisers. Feedback on service levels and performance in general is provided periodically, both formally and informally. The adviser reviews we undertake include questions about the advisers’ expertise and performance in relation to climate-related risks and opportunities. Additionally, the investment advisers to the Scheme have annual objectives against which they are formally assessed; these objectives include ensuring that the investment adviser supports us in understanding the TCFD governance and reporting requirements, and how to manage climate-related risks within the strategy.

We maintain ongoing dialogue with the Sponsor, including updates provided by a Sponsor representative at Trustee meetings. This dialogue includes the Sponsor’s approach to climate-related issues, to ensure those relevant to the Scheme are considered where appropriate and ensure synergy between the Scheme and the Sponsor’s approach to climate-related issues.

The Trustee

Our role is to oversee the management of the Scheme’s strategy, assets and investments. A decision was taken to appoint a sole professional corporate trustee to replace the existing trustee board in early 2023, which led to a restructuring of the Scheme’s governance arrangements. In particular, the Trustee (as a result of the sole trustee model) has assumed full responsibility for the role previously undertaken by the Scheme’s Investment Committee, including oversight of the Scheme’s climate-related risks and opportunities.

Investment Committee

The Investment Committee was a subset of the full Trustee Board, and its responsibilities were to:

- Maintain an ongoing understanding of legislative changes and all minimum regulatory requirements to be adhered to by the Scheme.
- Maintain a climate change policy to be approved by the Trustee.
- Develop a project plan to ensure all TCFD reporting recommendations are met and manage implementation progress against the plan, providing regular status updates to the Trustee.
- Consider longer-term climate change opportunities that extend beyond the minimum reporting and governance requirements, for approval by the Trustee.
- Manage the budget approved by the Trustee, promptly escalating any requirements for additional resourcing/funding to deliver agreed goals.
- Appoint and manage external advisers directly supporting climate change related goals and activity.

- Ensure appropriate focus for climate change is brought to Trustee meetings, and investment managers (and insurance companies appointed by the Trustee where relevant) are clear on the climate-change policy and reporting and governance expectations.
- Establish and maintain processes that allow the Trustee to satisfy themselves that those managing the Scheme are assessing climate-change-related risks and opportunities on an ongoing basis.
- Maintain oversight of climate-change-related risks and opportunities and ensure appropriate mitigation plans are developed and kept up to date.
- Identify the most effective ways to provide training for the Trustee to ensure the Trustee maintains the required knowledge of climate-change-related developments and associated reporting and governance requirements.
- Identify key metric reporting requirements for approval by the Trustee and establish reporting processes to report against approved metrics on required timescales.

The composition and responsibilities of the Investment Committee were set out in its ToR.

Investment advisers

The Scheme's investment advisers, Hymans Robertson, are responsible for assisting the Trustee to ensure climate-related risks and opportunities are embedded into all investment decisions. They provided advice and training to the Investment Committee and us regarding regulatory requirements and are expected to incorporate climate considerations into any advice regarding any strategy changes or manager appointment.

We are confident in our advisers' ability to identify and assess climate-related risks and opportunities through their own in-house RI team, which regularly reports and provides training on relevant climate and governance topics. We also expect to put in place a specific climate-related strategic objective for our investment adviser for annual performance monitoring. This objective will be aligned to our agreed climate-related investment beliefs.

Actuarial advisers

The Scheme's actuarial advisers, Hymans Robertson, are responsible for identifying any climate considerations that should be incorporated into the Scheme's funding strategy (both short and long term) and in the Scheme's integrated risk management plan. This will include the setting of individual financial and demographic assumptions.

Covenant advisers

Our assessment of the Sponsor's covenant is undertaken through dialogue with the Sponsor and formal covenant reviews undertaken by Cardano. Cardano (and the Sponsor, as outlined above) are responsible in their reviews for identifying any climate considerations that should be incorporated into the Scheme's strategic discussions and in the Scheme's integrated risk management framework, including consideration of the covenant provided by the Sponsor. This will be discussed in greater detail in the Strategy and Risk Management sections of this report.

Investment managers

The Scheme's investment managers are expected to integrate ESG considerations, including climate change, into their management of each of the Scheme's mandates.

On the appointment of any new manager, the Trustee 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 Climate Change Policy. Once appointed, the Trustee monitors all managers regularly, assessing each manager's RI processes and policy, and challenges managers on any issues identified.

The Investment Committee and the Trustee also liaised with the investment managers in relation to RI matters. The Trustee maintains a record, which is updated based on information provided by and discussions held with the investment managers. This document records the Trustee and investment adviser's views on each manager's RI policy and integration of ESG considerations into the investment process. It also sets out the approach and actions the Trustee plans to take to address any risks identified.

Along with reporting on metrics and discussions of improving reporting standards for in relation to TCFD, the managers regularly report ESG-related issues, which we review annually in our implementation statement. We are currently satisfied that managers are adequately identifying and assessing climate risks and opportunities.

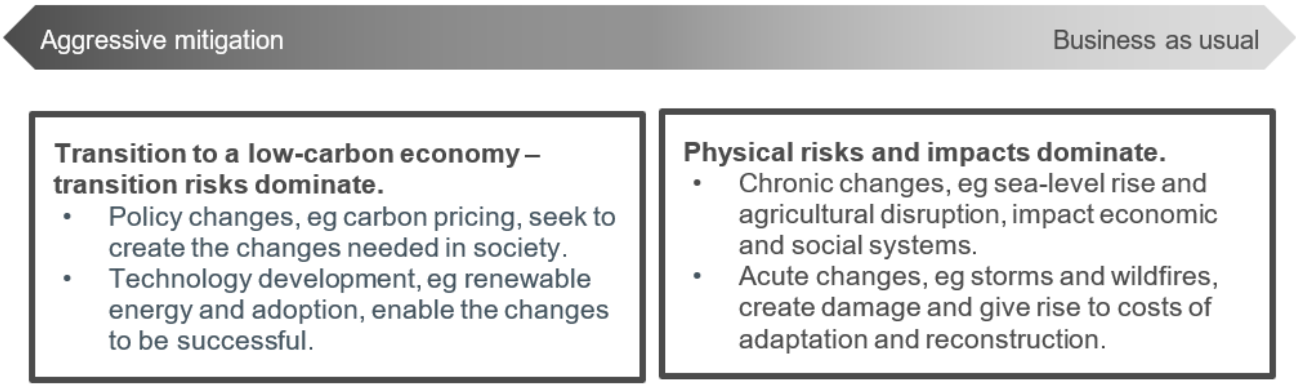
Strategy

Introduction

The Scheme's strategy across the key areas of funding, investment and covenant has been assessed in terms of the potential climate-related risks and opportunities that may arise over the short, medium and long term. We've also defined these short-, medium- and long-term time horizons to establish clarity across this assessment, as well as other activities such as scenario analysis and target-setting.

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 Scheme, 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 – but both parts are financial risks in their own right. These risks may vary in likelihood and intensity over different time horizons and are dependent on how quickly and well the world transitions to a low-carbon economy. This is laid out in the diagram below:



The Scheme is a long-term investor, and all relevant asset classes within scope have been covered by the scenario analysis. Given the nature of climate change and the time horizons over which impacts of climate change may be felt, climate risk could impact the Scheme in various ways. However, it's important to first define the different time horizons, to clarify whether the different risks and opportunities arising from climate change may impact the Scheme in the short, medium or long term.

In the context of the Scheme, we consider short, medium and long-term time horizons. We have defined what these time horizons mean in more detail as set out below, taking account of the liabilities of the Scheme and the obligation to pay benefits:

- Short term: in line with our actuarial valuation cycle – three years (ie to 2026)
- Medium term: broadly aligned with the Scheme's target date for approaching full funding as well as being halfway between now and the long-term time horizon as set out below – five years (ie to 2028)
- Long term: consistent with the period within which the Scheme should be able to fully insure all liabilities based on current expectations – 10 years (ie to 2033)

Transition risks are expected to feature more prominently over shorter time periods. This view is predominantly 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 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 Scheme during its lifetime.

Risks relating to climate change are identified through the various processes involved in managing the Scheme, which are set out in the risk management section of this report. We maintain a climate risk dashboard, which records the risks identified through these processes and is used to prioritise areas for action.

Climate risks may be identified, assessed and monitored in different ways. These approaches include looking at climate risks and opportunities in detail for each asset in which the Scheme invests. We consider climate risks at both an overall strategy level and with respect to each asset in which the Scheme 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 table below and overleaf sets 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 Scheme are set out in the next section of this report.

Risk Area	Climate Risks					Action owner & Timescales for next steps	Identified Opportunities
	Identified Risks	Impact			Mitigation/Actions		
		Short term	Medium term	Long term			
Investment	Short/medium term – exposed to risk through remaining equity exposure and credit asset allocations, although these allocations are expected to decline as part of strategic journey plan. Medium- to long-term plans will see exposure to UK government through liability-driven investment (LDI), plus investment grade credit and insurance contracts. Risk that ability of underlying investee companies to service debt could be impacted by transition or physical risks. Short, medium and long term – climate scenario analysis results highlighted that the investment strategy appears resilient, with the Green Revolution scenario having the most potential to disrupt returns over the expected duration of the Scheme.	Low	Low	Medium	Trustee and investment advisers to liaise with managers across a range of topics, most notably data quality improvements, manager integration of ESG and climate considerations, and further potential risks to assets via regional, sectoral or other exposures. Updated climate scenario analysis to be performed to take into account potential new strategies. New mandates to include specific RI/climate-related targets/guidelines – focus on alignment with net zero commitments. Insurance regime provides protection for buy-ins and insurers who are also subject to TCFD reporting requirements, with many setting net zero goals. Climate scenario analysis highlighted strategy appears resilient.	Owner: Trustee / Hymans Robertson Timescale: 2023 – revisit as part of buy and maintain credit allocation	Limited given relatively low risk strategy and strong funding position. Will be considered as part of any new mandates given agreed target to have minimum allocation to issuers without net zero commitments. We expect insurers will be seeking out opportunities as part of their own climate risk and opportunities assessments under TCFD, due to their long-term investment horizons and economies of scale.

Risk Area	Climate Risks					Action owner & Timescales for next steps	Identified Opportunities
	Identified Risks	Impact			Mitigation/Actions		
		Short term	Medium term	Long term			
Funding	Long term – longevity impact from climate change and potential uncertainties in the funding assumptions. Long term – impact of climate change on longevity trends will take time to emerge so might expect minimal impact short term with the greatest potential impacts in the longer term. Short, medium and long term – inflation and interest-rate changes impact liabilities but the Scheme has high levels of hedging to protect the funding level against movements in these market factors.	Low	Low	Medium	The Scheme's buy-in with Scottish Widows hedges a proportion of longevity risk, dampening funding impacts. Further buy-ins will continue to help mitigate. Strengthening funding level provides buffer to mitigate impact of future longevity improvements. To be updated with advice provided by Hymans Robertson during next valuation cycle.	Owner: Trustee / Hymans Timescale: In line with valuation cycle	Potential for further buy-ins to hedge increased proportion of longevity risk and mitigate risk. Otherwise limited.

Risk Area	Climate Risks					Action owner & Timescales for next steps	Identified Opportunities
	Identified Risks	Impact			Mitigation/Actions		
		Short term	Medium term	Long term			
Covenant	Short, medium and long term – risk of Sponsor not meeting climate-risk targets, which may impact profitability and strength of covenant. Longer-term physical risks could impact Sponsor assets and infrastructure leading to destruction of value. Short, medium and long term – reliance on Sponsor covenant could increase in importance if funding level were to fall due to other risks outlined above.	Medium	Medium	Medium	Strengthening target funding position reduces Scheme's reliance on Sponsor over time. Trustee engages with the Sponsor on a regular basis as part of regular covenant monitoring. Sponsor has set strong business goals aligned to UN's Sustainable Development Goals and reports regularly against its targets. Sponsor has set net zero targets verified by Science Based Targets initiative. Long-term success is reliant on achieving these targets, therefore flagged as medium risk over the long term. Climate risk to be considered further in future covenant assessments.	Owner: Trustee / Sponsor Timescale: Ongoing – Trustee to engage with Sponsor in 2023 on progress against stated net zero targets. Consider whether further independent covenant assessment is required.	Limited

Disclosure 2: Describe the impact of climate-related risks and opportunities on the Scheme's 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 macroeconomic impact that could affect the entire Scheme. Equally, however, the need to transition to a low-carbon economy and the innovation that will require presents potential investment opportunities.

Over recent years, we've 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 Scheme's investment managers and, when setting investment strategy, considering the resilience of our strategy to climate-change risks.

Across the different time horizons, we've identified actions that will be important to manage climate risk as well as progress against the targets and commitments we have agreed for the Scheme.

Climate change and broader ESG issues have been included in the Scheme's risk register as requiring action. While this is discussed in further detail in the Risk Management section of this report, the actions identified to manage and mitigate climate and ESG risks are set out below:

- Establishing our RI policy and beliefs, including a specific climate change policy and beliefs.
- Manager selection – consideration of the ability to integrate RI and climate objectives into the mandates held, which forms part of the manager selection and implementation process.
- Ongoing engagement with the Sponsor on its own climate-transition plans and commitments. While the current funding and investment strategy is expected to reduce the Scheme's reliance on the Sponsor over time, climate change and the transition to net zero are highly relevant to its key business activities.
- Consideration of RI and climate change as part of the assessment of insurance transactions.

We've already undertaken activities to support these actions and manage climate risk to the Scheme. These actions include:

- We hold meetings with each of the Fund's investment managers to understand how that manager integrates climate change and other ESG risks and opportunities into their investment process.
- We have agreed climate targets and will monitor performance against these targets on an ongoing basis, with this performance being considered as part of regular strategy reviews.
- When assessing strategy changes to be taken for the Scheme, we take 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 earlier this year (covered further in the section below).
- By including specific references to ESG and climate-related risks within the objectives of our strategic advisers, as well as part of our defined approach to training, we receive frequent training on the management of climate-related risks and opportunities.

Further examples of our actions are included in other sections of this report.

We expect investment managers to engage with investee companies on climate transition plans and alignment with the Paris Agreement, and we will seek feedback on their engagements.

We aim to decarbonise the Scheme's investment portfolio in a way that's consistent with achieving global net zero GHG emissions by 2050 or sooner, in line with the Paris Agreement. To achieve this, we'll monitor investment managers' own targets and efforts to collaborate at industry level on this topic.

The Scheme's asset allocation has been determined using appropriate long-term economic and financial assumptions from which expected risk/return profiles for different asset classes have been derived. These assumptions apply at the asset class level rather than to individual stocks. We'll update these assumptions in line with industry practice as its understanding of climate risk improves, and we will use scenario analysis periodically to optimise the resilience of the investment strategy.

We will share this climate change policy with investment managers and insurance companies appointed. We'll also review this climate change policy at least annually to adapt to changes in the investment strategy, regulation, industry guidance and best practice.

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

In order to test the resilience of the Fund's investment strategy to climate risk, we carried out climate scenario analysis, considering the Scheme's assets and market conditions as at 28 February 2023. This analysis was to assess the resilience of the Scheme's strategy over short-, medium- and long-term time horizons to different climate scenarios. These scenarios estimate the impact to the Scheme of temperature rises equivalent to 1.5°C, 2°C and 4°C above pre-industrial times, as detailed in the scenario graphic below.

The scenario analysis was based on top-down analysis of the Fund's strategy, using a model produced by the Scheme's investment adviser, 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 outlined under Strategy Disclosure 1. The scenarios used were chosen for a few reasons, including the availability of analysis on these scenarios, the nature of these scenarios providing insight across a range of potential scenarios, and meeting the scenario analysis TCFD reporting requirements.

1.5°C — 4°C

Aggressive mitigation — Business as usual

Green Revolution	Delayed Transition	Head in the Sand
Concerted policy action starting now eg 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. High expectation of achieving <2°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 elements of the Scheme's current investment strategy. To illustrate the potential implications of climate risk, we considered the above three climate scenarios and the impact on assets, liabilities, covenant and overall strategy. When developing the assessment, we considered the impact of the climate scenarios and used a combination of qualitative and quantitative assessment to consider which downside scenarios could disrupt or materially impair the Scheme's ability to meet benefit payments.

Quantitative analysis was used to illustrate the potential impact on the expected return from our investment strategy under the scenarios. This was considered for all asset classes that the Scheme held as at 31 January 2023, but did not include analysis on the Scheme's buy-in policy. The scenario analysis was carried out via financial risk modelling by the Scheme's investment adviser. The analysis is not entirely bespoke, as it's based on a model pension scheme with a similar investment strategy, but we deem this to be appropriate given the Scheme's circumstances. We then considered this quantitative analysis alongside qualitative views on the material downside risks for each scenario in relation to liabilities and covenant.

Further information on what was modelled and the outputs is included in Appendix II.

Outcomes of the scenario analysis

As outlined above, while the scenarios modelled indicate a potential impact to the Scheme in the future versus the base case, we're satisfied that the results of the scenario analysis suggest that the Scheme is resilient to climate-change risk.

The reason why the impact of the climate scenarios is unlikely to be significant is in part due to the level of diversification in the Scheme, which is intended to mitigate certain levels of volatility, as well as the hedging arrangements in place through the buy-in with Scottish Widows and the investment in LDI.

The nature of the scenarios reflected and how they manifest with respect to additional volatility that may be experienced by the Scheme over different time periods is reflected by the outputs above. The Green Revolution, which assumes that the majority of impacts to the Scheme are linked to short-term transition risks, results in more volatility over a 0–5-year period. In comparison, the effects of the risks that may occur under the delayed transition and head in the sand scenarios are anticipated to occur around 5 years and around 10 years from now, respectively.

If the Green Revolution were the scenario that occurred in practice, it may result in small negative impacts over the Scheme's chosen short- and medium-term time horizons, but a recovery could be expected thereafter. The Delayed Transition scenario could be expected to have a small negative impact to the Scheme over the Scheme's chosen medium- to long-term time horizons. Finally, the Head in the Sand scenario would be more likely to result in financial impacts to the Scheme beyond the Scheme's currently selected long-term time horizon – hence the lower impacts for this scenario in the tables above.

Overall, however, it's worth noting that the impact to the Scheme across all scenarios and time horizons could be considered low – this supports the conclusion that the Scheme is generally resilient to potential impacts of climate risk under the modelled scenarios.

Climate Scenarios – Conclusions

From this analysis, we concluded that the returns and downside risk are not significantly worse under any of the scenarios. However, this doesn't mean that climate risk isn't important or that the Scheme is 'immune' to its effects. Instead, it implies that if the level of risk in the funding and investment strategy was acceptable, and since the scenario results suggest that this risk level is not materially different even when the model is significantly stressed, we concluded that the funding and investment strategy are resilient to climate risk.

The high-level results of the scenario analysis concluded that, based on the specific scenarios considered and considering potential funding impact, we think the current strategy and maturity of the Scheme provides sufficient buffer to withstand potential risks, and even some combination of risks, while still securing the underlying benefits. However, if impacts were more severe in practice, there could be a risk of not meeting benefit payments in full if this happened in combination with covenant failure.

Potential impact of more extreme scenarios

The impact on the assets in the scenarios above is based on analysis that allows for increased volatility in markets. Recognising that this quantitative analysis assumes financial systems continue to exist in their current form, more extreme scenarios leading to breakdowns of systems could have more severe impacts. Examples of extreme events that would significantly impair the Scheme's ability to meet benefits are:

- Failure of an insurer with which Scheme liabilities have been secured: ordinarily the insurance regime would step in and provide protection. If the situation were so severe that the regime collapsed, around 30% of the Scheme's assets could be unavailable. In this event, the Scheme would become significantly more reliant on the covenant and the Trustee may require the Sponsor to intervene.
- Failure of existing financial systems, given climate change is a new and emerging risk.
- Default of UK government on its debt.

Taking the scenario analysis forward

We will continue to measure the Scheme's exposure to climate risk through the chosen climate metrics, which will flag specific risks and opportunities in portfolio companies.

The scenario analysis set out within this disclosure will be carried out on at least a triennial basis, alongside each future investment strategy review and triennial actuarial valuation as appropriate within the broader triennial cycle of Scheme activities. In the interim years, we will consider whether to refresh the analysis, stating whether or not we choose to do so, and why, in the relevant TCFD report covering that period.

Scenario modelling, while an important tool in assessing the possible effects of climate change, should be used with care. This analysis, as with any scenario modelling, uses simplified models of the world and relies on the assumptions and data that underpin the model. The scenarios considered may or may not occur in practice and are used by us in order to inform decision-making more broadly, rather than being the sole basis for decisions. We're also aware that the data and methodologies used within climate scenario modelling are evolving rapidly.

Further information on the reliances and limitations of the climate scenario modelling are set out in Appendix II.

Risk management

Introduction

The Risk Management section of the report sets out the process by which climate-related risks are identified and how these risks are evaluated, prioritised and managed. We also cover expectations of what we expect from managers holding assets for the scheme. Both physical and transition risks follow the same process under the overall approach to risk management.

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

As part of our responsibility for the setting and implementation of the Scheme's RI policy, we must ensure that ESG-related risks, including climate change, are identified, assessed and effectively managed. Therefore, it's crucial that the management of these risks is integrated into the overall risk management of the Scheme. We delegate aspects of this responsibility to other parties, but we retain overall oversight, as set out previously in the Governance section. Below, where we have referred to ESG risks more broadly, this will include consideration of climate-change risks.

Risk-management framework

The Scheme's risk-management framework takes the form of a risk register, which is monitored under the Sole Trustee framework of regular meetings, as well as supporting documentation such as the climate-risk dashboard that we have in place for the Scheme and IRM metrics. We retain all oversight over risk management and continue to receive regular updates including risk management annual reports.

At a simple level, our risk-management process comprises identification, assessment, monitoring and control of risk. We currently take a top-down approach to risk management, which uses our strategic objectives as the starting point for our process.

Identification of risks

Information from various sources is used to help identify risks, and we and our advisers are responsible for identifying risks as appropriate.

With respect to climate-related risks, we also undertake risk analysis at the individual asset level. This is known as a bottom-up analysis and is informed by the climate metrics that we have put in place as well as scenario analysis. In this instance, the Scheme's investment managers are also responsible for the identification and assessment of risks and opportunities. This approach will use available information to assess the potential impact of climate-related risks on investment performance.

Additional details of the Scheme's approach to the identification, reporting and management of risk is set out as follows:

- The risk register is reviewed regularly by the Trustee.
- A summary of risks is noted in the Funding Strategy Statement and Investment Strategy Statement regarding the risks subject to both strategies, respectively.
- A Risk Assessment Methodology is adopted based on net risk, which is ranked on a scale of Critical, High, Moderate and Minor.

Identification of climate-related risks across Scheme processes

ESG, particularly climate-related, risks can be identified by various parties including us, our advisers and managers as outlined under the Governance section of this report as part of the ongoing management of the Scheme. ESG risks are identified as part of the following processes:

- **Investment strategy reviews** – We consider ESG risks as part of the Scheme’s regular investment strategy reviews that are carried out alongside each actuarial valuation and on an ad hoc basis. These reviews cover the extent to which ESG considerations are taken into account in the selection, retention and realisation of investments. The Scheme’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 can incorporate the consideration of ESG risks in the actuarial-assumptions advice and any projections that are considered to evaluate the possible long-term funding outcomes for the Scheme. When assessing the Sponsor’s covenant, we take into account the ESG risks to the Sponsor.
- **Considering asset classes** – When assessing new asset classes, potential ESG risks are assessed and discussed as part of our training. Key ESG risks are factored in when comparing alternative options.
- **Selection of investment managers** – When appointing a new investment manager, the Scheme’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 us to identify risks when comparing potential providers. The Scheme’s policy also requires investment managers to engage on ESG issues, rather than divest.
- **Individual mandates and investments** – We also undertake risk analysis at the individual asset level and have adopted enhanced management of ESG issues and climate change, including new potential investment products. In this instance, the Scheme’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 us in the following ways:
    - As part of their regular reporting as investment strategy is subject to continuous review by the Trustee.
    - During their presentations when meeting with the Trustee and Scheme advisers.
    - By providing climate-metric data in line with TCFD requirements.

Prior to and over the reporting period, the Investment Committee met with the Scheme’s current investment managers or received information provided by the investment advisers on the approach being taken by the investment managers, to gain a more in-depth understanding of each manager’s process and the risks inherent in each of the current mandates. The Trustee is expected to undertake this role directly following the move to a Sole Trustee.

Any key risks identified are discussed by the Trustee and are listed on the Scheme’s risk register and/or the climate risk dashboard, to be monitored on a regular basis.

Evaluation and prioritisation

Once risks are identified, they are evaluated and prioritised based on the overall threat posed to the Scheme – this is described in more detail under Risk Management Disclosure 2 below.

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 Scheme's processes for managing climate-related risks.
Prioritising risks and agreeing actions.

Once risks are identified and added to the risk register, they are evaluated and prioritised based on the overall threat posed to the Scheme.

We prioritise 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 Scheme, 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 us build up a picture of the Scheme'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 Scheme. 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 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

Our expectations of the investment managers with regard to the integration of ESG risks are set out in the Scheme's Statement of Investment Principles (SIP) and Climate Change Policy. Our investment managers are asked to report on how their strategy is aligned with our intentions and to discuss any investments that do not comply with these policies. We monitor the ESG activities of all managers through regular reporting and meetings, as set out above.

In summary, we expect all of our 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.

We engage with current investment managers where risks have been identified to agree a plan of action. 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.

We maintain a record of information provided by and discussions held with their investment managers via meeting minutes and through other documentation.

Stewardship, engagement and voting

In addition, we, with the assistance of our investment adviser, prepare an annual implementation statement, which assesses the engagement and voting activities of investment managers and is used to monitor managers' activities in this area.

In the annual implementation statement, we receive a summary from the investment adviser on key engagement and voting activities of the Scheme's investment managers. We use this to inform our monitoring of investment manager stewardship practices. Where investment managers are not acting in line with expectations, we engage further with the manager to understand why and work to improve the stewardship practices and/or performance. If this does not occur, we undertake a formal review.

The Scheme's approach to stewardship is also a key aspect of the management of climate-related risk. We expect our investment managers to consider and take appropriate steps to manage this in their funds, including engagement with underlying investee companies on their management of climate risks.

There are processes in place by which investee companies are engaged with on climate-related issues on our behalf. This is done through delegated engagement via the investment managers and ongoing monitoring of this engagement activity by us and our investment adviser. This includes understanding the asset managers' approach to voting in relation to climate-related issues and engaging with those asset managers where we feel that the manager's approach is not aligned with our agreed objectives for the Scheme.

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

As set out under Risk Management Disclosure 1, the management of ESG risks is integrated into the Scheme'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 Sponsor's covenant, we review the Sponsor'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 Scheme and may consider the appropriateness of actuarial assumptions and of overall security provided to the Scheme.
- **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** – We consider 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** – We expect our 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, particularly climate-related risks.

We set the overall strategy and risk budget for the Scheme and cover RI matters, including the integration of climate change within the Scheme's investment strategies.

Given the wide variety of risks, as well as the complexity of these risks and how they may interact with each other, there is significant uncertainty about the net impact of climate risk and how it may affect the Scheme's strategy across the IRM areas of funding, investment and covenant.

We use both scenario analysis and the climate-related metrics chosen and collected for the Scheme to help inform our approach to this uncertainty, as well as to better understand the resilience of the Scheme to climate change. The scenario analysis and climate-related metrics are covered in more detail under the Strategy and Metrics and Targets sections of this report. These have also informed the climate-risk dashboard under Strategy Disclosure 1 and Appendix II.

Climate change is included in the Scheme's risk register in the context of risk to the strategy or of investment managers underperforming. Relevant controls and mitigating actions are also documented.

As set out above, the Scheme will continuously monitor and challenge all of its investment managers to support and meet the targets set by us for the Scheme.

Metrics and targets

Introduction

The Metrics and Targets section of the report sets out what climate-related metrics and targets are, the limitations in reporting on metrics, and climate-related targets that have been set. This section also provides climate-related data, from which we're working with managers to align the Scheme with our targets – set out later in this section. The metrics we've chosen and the target that we've set will be reviewed as appropriate, and we'll report additional data and metrics as the quality and coverage improves.

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.

Carbon equivalent risk metrics will form an important part of the Scheme's investment decision-making process to measure, manage and disclose climate risk. The selected metrics will also help us identify opportunities for further engagement with investment managers and underlying investee companies.

This report focuses on the mandatory metrics that all pension schemes are asked to monitor and report against for TCFD purposes. We appreciate that no single metric is perfect. 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.

Climate-related metric limitations

The climate metrics that we've chosen, as is the case with climate metrics more broadly, are still evolving. Due to the immaturity of reporting, the data underpinning metrics and the methodology used to calculate them is still in its infancy. Therefore, while we acknowledge that these metrics are helpful in terms of understanding the Scheme's current position, they require careful interpretation.

In particular, there are limitations to what data is available from investee companies on emissions of greenhouse gases, particularly for Scope 3 emissions, as noted below. Given the complexity, time and resource required to obtain accurate Scope 3 emissions data, we expect that it will take time for reporting to improve. Where these limitations in data exist, the data may be estimated or not yet reported/missing. Estimates may be carried out however the managers see fit. This would include any of the following: carrying out an inventory of all business travel using vehicles not controlled by a company; identifying all purchased goods and services across the supply chain; carrying out lifecycle assessments of purchased goods and services; identifying total emissions from commuting; the use of spend-based carbon accounting estimate; basing calculations on actual usage data; and conducting surveys to obtain direct and indirect energy usage. We'll seek to obtain information, where it is currently missing, for future assessments. Meanwhile, the results of the above metrics are understood to be reflective of the portfolio, but the limitations of data availability are noted when using the metrics for decision-making purposes.

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

The categories of climate-related metrics to be chosen

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, with the metrics chosen by us that align to the Scheme's requirements:

1 One **absolute emissions metric** is to be chosen and monitored: there is only one choice of absolute emissions metric – total greenhouse gas (GHG) emissions.

2 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.

3 An **additional climate change metric** that is non-emissions based: there is a wide variety of outcome based and process-based metrics that may be chosen.

4 A **forward-looking portfolio alignment metric**: there are three different portfolio alignment metrics that may be chosen from.

Climate-related metrics chosen for the Scheme

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 Scheme'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 Scheme'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 Scheme'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

The above metrics have been chosen for the Scheme as they align to the recommendations of the Department of Work and Pensions' guidance on TCFD for pension schemes. They comprise a broad enough range to provide us with the information we need to understand the Scheme's current position, along with the proportion of available data underpinning the position at that point in time. The portfolio alignment metric also provides some indication of where the Scheme may go in future, based on underlying net zero targets across the Scheme's assets.

Understanding GHG emissions

Many climate-related metrics are based on the level of GHG emissions that are related to a particular asset or investment. This isn't limited to carbon dioxide, but instead includes all main

GHGs such as methane and nitrous oxide. GHG emissions are then categorised into 3 scopes:

- **Scope 1** – All direct GHG emissions from sources owned or controlled by the company (eg 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 eg 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're currently gathering Scope 3 data for the Scheme's investments where available, this is currently not well reported. We've split the Scope 3 data in this year's report to be clearer about where data gaps lie, due to lack of information received by managers or lack of reported data.

We'll seek to obtain information, where it's 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 are 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 assets of the Scheme can be categorised into three groups – Growth, Income and Protection.

Growth assets are those that typically target higher returns by investing into slightly higher-risk assets, such as public or private equities.

Income assets generate a return that's attractive, but typically lower than growth assets. They also provide a smoother path of returns through visible income streams, which makes it easier to disinvest to meet members' benefit payments when needed. Income assets include traditional core property, infrastructure, higher-risk bonds and forms of secured lending.

Finally, **Protection assets** are those that are typically less volatile and offer protection during significant market falls, protecting the Scheme's asset value and funding level. This category of assets traditionally includes government bonds and investment-grade corporate bonds, as well as newer forms of protection such as liability-driven investments.

The Scheme has a mix of assets across these three categories to help us achieve a sustainable return without taking an inappropriate level of risk. This is how we've categorised our investments below when presenting the climate-related metrics provided by our investment managers for the Scheme's assets.

Frequency of reporting

Across the assets, it's important to note that data collection varies for climate-related metrics. It's also difficult to gather metrics as at the same reporting dates, because of lags in reporting of underlying holdings, relevant benchmarks used for estimation or more generally due to infrequency of reporting more broadly for the assets. Therefore, we've endeavoured to gather metrics as at the same date across the Scheme's assets, but some mandates only have data available at older dates. The tables overleaf make note of which date the climate-related metrics have been produced at within the footnotes.

Scope 1 and 2 emissions

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

Scope 1 & 2 emissions metrics	Q1 2023 Allocation (%)	Total carbon emissions (tCO2e)	Carbon footprint (tCO2e / £m invested)
Growth			
LGIM UK Equity	0.1	7,153	108.4
LGIM Global Equity[2]	0.4	3,727	117.2
Income			
Insight Buy & Maintain	11	7,855	39
Insight Secured Finance	19.9	Not yet available	
Insight ABS Funds	0	Not yet available	
Partners Multi Asset Credit 2016	1.6	Not yet available	
Partners Multi Asset Credit 2019	6.9	Not yet available	
Protection			
Insight LDI portfolio[1]	24	121,733	164.7
Insight Cash Plus	0.1	Not yet available	
Buy in policy	36	Not yet available (TBC)	

[1] LDI emissions data is not currently aggregable with other asset emissions data due to the way in which it is calculated, therefore being kept separate when reporting whole fund figures.

[2] Weighted average of data from individual funds comprising overall Global Equity fund.

Data from managers is as at
31 March 2022.

Scope 3 emissions

The data and methodology for Scope 3 emissions is not as well defined as Scope 1 and 2 emissions. As a result, the data and emissions metrics for Scope 3 emissions is currently less reliable. Therefore, we've chosen not to report Scope 3 emissions this year, but we plan to include it in any future reports.

We expect the data coverage of the Scheme's assets to improve over time. As part of the ongoing dialogue with investment managers, we will request that managers consider data availability and quality to ensure we can report on the Scheme's position in full, including Scope 3 emissions.

Non-emissions related metrics

The other metrics chosen for the Scheme were also measured, as shown in the table below.

Non-emissions related metrics	Q1 2023 Allocation (%)	Reported and Estimated Emissions Data Coverage (%)	Binary Target Measurement (%)
Growth			
LGIM UK Equity	0.1	93.5	53.7
LGIM Global Equity	0.4	95.7	43.3
Income			
Insight Buy & Maintain	11.0	67.0	42.2
Insight Secured Finance	19.9	Not yet available	
Insight ABS Funds	0.0	Not yet available	
Partners Multi Asset Credit 2016	1.6	Not yet available	
Partners Multi Asset Credit 2019	6.9	Not yet available	
Protection			
Insight LDI portfolio[1]	24.0	79.4[2]	79.4
Insight Cash Plus	0.1	Not yet available	
Buy in policy	36.0	Not yet available (TBC)	

[1] LDI emissions data is not currently aggregable with other asset emissions data due to the way in which it is calculated, therefore being kept separate when reporting whole fund figures.

[2] Emissions data is self-reported by the UK government. Proportion of data reported taken as the net gilt position as a percentage of total portfolio NAV.

Data as at 31 March 2022.

Currently, a proportion of the Scheme's holdings are unable to be measured across the different metrics. This is partly 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'll strive to improve this over time to ensure we receive a fuller picture of the Scheme's position.

Metric conclusions

Overall, we're pleased that most of our investment managers were able to provide data for their funds. This means that the majority of the Scheme's portfolio as at 31 March 2023 had initial emissions metrics that we could consider and use in assessing the Scheme's climate-risk exposure.

For those funds for which we received emissions metrics, based on our and our advisers' understanding of metrics across the industry, we're pleased to see that carbon footprint is in the range or on the lower side versus other types of pension scheme investments. This is both when compared to similar assets and more broadly against the available universe pension scheme investments where data is currently available. As a result, the Scheme's total carbon emissions is also very reasonable for a baseline position – however, we still hope to see our emissions decrease over time, although noting that this is also dependent on the data coverage improvements to come.

The above stands for both Scope 1 and 2, and Scope 3 emissions, although we note that the Barings Multi-Asset Credit Fund has a relatively high carbon footprint for Scope 3. With this fund forming an immaterial part of the Scheme's portfolio, however, this will be of limited impact in future reports.

Data coverage is reasonable overall for a number of funds. However, it is lacking in others. We'll also endeavour in future years to better understand the splits between reported and estimated data where it isn't currently provided. Finally, while portfolio alignment metrics – for the Scheme, this is the binary target measurement metric – have only been introduced within TCFD reporting in the last year, we're disappointed that reporting from managers on this metric is lagging. Therefore, we plan to further engage on this metric with a view to providing a more complete picture next year of the proportion of Scheme assets with suitable net zero targets.

The funds for which we have not yet received climate-related metrics will be considered on a mandate-by-mandate basis, with a particular focus for us in the coming year on those where the Scheme is expected to hold a significant proportion of assets or in which the Scheme will remain invested in over the longer term. We'll take a proportionate approach, whereby funds that make up a small proportion of the Scheme's assets or that are expected to be wound down or removed from the strategy in the short to medium term will be of a lower priority, to ensure we use our time effectively.

We acknowledge that limited data is available on industry-wide comparisons. We've relied heavily on the benchmark set for each fund and the market knowledge of its advisers in understanding how well the funds are performing and whether further improvements could be made.

Future reporting

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

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're currently working through our investment mandates to agree specific sets of metrics and, where appropriate, related targets, including climate-related targets. Given the nature of the assets and availability of data, we've considered targets on a mandate-by-mandate basis 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. This is to enable them to set more meaningful targets where we have the ability to take specific actions and influence the outcomes.

Therefore, we've decided not to set an emissions target for the Scheme's first year of reporting under the TCFD requirements. This decision can then be revisited once data coverage is improved, when we better understand the Scheme's current position and how far there is to go to reduce emissions and achieve net zero.

Climate-related targets for the Scheme

Because of the need to make progress with the coverage and quality of data being reported and on which decisions can be made, we've set a target for the Scheme on the Portfolio Alignment metric.

The target agreed for the Scheme is to improve the binary target measurement % for each of the Scheme's mandates versus this year's figures ie to increase the % of the funds for which underlying holdings have a net zero target in place.

We expect to progress against the above target predominantly by engaging with the managers on their expectations for encouraging the setting of net zero targets, using our influence as asset owners where possible. In order to measure progress, we will compare future positions against this year as the base position.

Given the nature of the assets and availability of data, we consider targets on a mandate-by-mandate basis to appropriately reflect the actions available and the key priorities for that mandate. This also takes into consideration our expectation for certain assets to form a part of the Scheme's longer-term strategy.

Where the investment strategy changes and new funds or managers are introduced for the Scheme, we'll request available data from the manager and then set a specific target as appropriate.

We'll 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 the net zero targets where this is considered reasonable.

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

More broadly, the ability for diversified investors (such as pension schemes) to set meaningful climate targets is inhibited by the limited availability of credible methodologies and data currently available. Like most investors, the Scheme is supportive of the development of target-setting methodologies, and of the increasing completeness of carbon datasets. We wish 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

Asset class
An asset class is a group of investments that typically share characteristics, which may be subject to the same rules and regulations. For example, equities, bonds and property are three well-known asset classes.

AUM
Assets Under Management – ie the amount of money invested and being managed.

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.

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.

Covenant
If the Scheme were to have a funding shortfall, ie if the Scheme's assets were lower than the value of the liabilities on the technical provisions basis, the Trustee would look to the Sponsor to make the necessary additional contributions to restore full funding. The legal obligation on the Sponsor to provide these contributions and remove the shortfall, and its ability to satisfy these obligations, is known as the Sponsor covenant.

Engagement
Engagement with respect to assets of the Scheme means communication with a person or organisation, typically via investment managers, with the aim of driving change.

ESG
Environmental, social and governance.

Fiduciary responsibilities
The responsibilities of the committee to act in the best interests of the Scheme's beneficiaries (ie Scheme members).

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)

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.

Low-carbon economy
An economy based on energy sources that produce low levels of GHG emissions.

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

Mandate
An instruction to an asset manager about how the Scheme's money may be invested.

Net Zero
Net zero refers to the amount of all GHG (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.

Paris Agreement
The Paris Agreement on climate change is a 2015 global accord seeking to keep the rise in global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the increase to 1.5°C. As of 2021, the Paris Agreement has been signed by 191 countries, and ratified by 186 countries.

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

Scope 1 Emissions
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 Emissions
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 Emissions
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.

Stewardship
Stewardship of assets is a tool that can shape corporate behaviour using methods including engagement and voting.

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

TCFD
Taskforce on Climate-related Financial Disclosures.

Voting
When investors are shareholders in a company via the investments they hold, this typically provides them the opportunity to vote on company matters at meetings such as an Annual

General Meeting (AGM). Issues that can be voted on include climate change plans, executive pay and the election of board directors. However, this opportunity only arises with certain types of assets, such as equities. Additionally, a lot of voting is undertaken on behalf of pension schemes by investment managers, due to pension schemes typically being one of many investors in a fund which then invests within companies.

Appendix II: Reliances and limitations

The expected asset returns referred to in this report are an output of Hymans Robertson's Economic Scenario Service (ESS), their proprietary stochastic asset model. This type of model is known as an economic scenario generator and uses probability distributions to project a range of possible outcomes for the future behaviour of different asset returns and economic variables. Like all models, ESS is based on a number of inputs and assumptions. Some of the parameters of the model are dependent on the current state of financial markets and are updated each month (for example, the current level of equity market volatility) while other more subjective parameters that affect long-term distributions are reviewed once a year (or more often in response to significant market events).

Assumptions

Key subjective assumptions are the median excess equity return over the risk-free asset, the volatility of equity returns and the level and volatility of yields, credit spreads, inflation and breakeven inflation, which affect the projected value placed on liabilities and bond returns. The output of the model is also affected by other more subtle effects, such as the correlations between economic and financial variables.

The figures used by the Trustee in its discussions have been calculated using simulations, calibrated using market data as at 28 February 2023.

Climate Scenarios – Quantitative Outputs

The quantitative assessment used when considering the impact on assets looks at the impact on expected returns for a model scheme with an investment strategy broadly similar to that of the Scheme. As there are no significant changes to the Scheme's investment strategy at the time of the modelling, no alternative strategies were considered.

We considered three key numerical outputs with respect to the Scheme's investment strategy when understanding the resilience of the Scheme to each of the climate scenarios, before integrating this with more qualitative analysis on the funding and covenant. The main investment strategy outputs were:

1. The 50%ile (ie median) return over 3, 5 and 10 years (in line with short-, medium- and long-term timescales agreed for TCFD reporting). This is broadly the 'expected' return with 50% of returns being above and 50% below this level.
2. The chance that the return in at least one year in the next 3, 5 and 10 years is worse than -5% (ie the chance of a severe asset shock). The climate scenarios tend to show more variability (at different time points) so the chance of a severe shock is typically higher.
3. The chance that the annualised return over the next 3, 5 and 10 years is worse than 0% pa.

The fact that the returns and downside risk are not significantly worse under any of the scenarios does not mean that climate risk is not important or that the Scheme is 'immune' to its effects. Instead, it implies that if the level of risk in the funding and investment strategy was acceptable, and since the scenario results suggest that this risk level is not materially different even when the model is significantly stressed, we can conclude that the funding and investment strategy is resilient to climate risk at a strategic level.

The quantitative outputs on the assets side have then been included in the Trustee's considerations of the overall scenario analysis, as discussed in the qualitative outputs table below.

Climate Scenarios – Qualitative Outputs

	Green revolution	Delayed transition	Head in the sand
Assets	• Current relatively lower risk strategy means probability of a year with a 5% loss or greater is low. • Scenario which has most potential to disrupt over the expected duration of the Scheme. • Actual asset returns will be affected by individual investee companies and their ability to adapt businesses to the climate transition.	• Current relatively lower risk strategy means probability of a year with a 5% loss or greater is low. • Actual asset returns will be affected by individual investee companies and their ability to adapt businesses to the climate transition.	• Current relatively lower risk strategy means probability of a year with a 5% loss or greater is low. • Actual asset returns will be affected by individual investee companies and their ability to manage impacts of physical risk.
Liabilities[1]	• Longevity – might expect small increase in life expectancy which would reduce the funding level slightly. Current funding position provides buffer to help mitigate impact and insured liabilities provide partial protection.	• Longevity – might expect small reduction in life expectancy. This would improve the funding position (but a worse outcome for members).	• Longevity – might expect large reduction in life expectancy. This would improve the funding position (but a worse outcome for members).
	• Interest rates and inflation – Scheme targeting relatively high levels of hedging so that funding position expected to be resilient to changes in interest rates and inflation		
Covenant	• Company's commitments and targets might see covenant improve under this scenario. • If Company fails to meet its own commitments or targets, could lead to covenant failure.	• More aggressive policy change could present risk if Company's plans and targets not aligned. • If Company fails to meet its own commitments or targets, could lead to covenant failure.	• Physical risk could impact Company assets and infrastructure leading to destruction of value.
Overall impact on funding and strategy	• Specific scenario explored could have small reduction in funding due to lower asset returns and	• Specific scenario explored could see small improvement in funding due to potential for reduced	• Specific scenario explored could see small improvement in funding due to potential for reduced

	Green revolution	Delayed transition	Head in the sand
	potential for improved longevity. • However, Scheme expected to reach full funding reducing exposure to covenant risk.	longevity and impact on asset returns.	longevity and impact on asset returns.

[1] Illustrations of the potential impact on life expectancy on current 50- and 65-year-olds are taken from the work done by Club Vita in its paper 'Hot and Bothered' which can be found here.

Risk Warning

Please note the value of investments, and income from them, may fall as well as rise. This includes equities, government or corporate bonds, and property, whether held directly or in a pooled or collective investment vehicle. Further, investments in developing or emerging markets may be more volatile and less marketable than in mature markets. Exchange rates may also affect the value of an overseas investment. As a result, an investor may not get back the amount originally invested. Past performance is not necessarily a guide to future performance.