



Taskforce on Climate- related Financial Disclosures Report

Scottish and Newcastle Pension Plan
Year ending 31 October 2023

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Overview

Trustee statement on climate risks and opportunities

Statement from the Chair

The Trustee recognises that climate change represents a long-term financial risk to the Plan's funding objectives. The material impact of climate change on members, financial markets and society is set to reach unprecedented levels. Within last year's TCFD Report, the Trustee set out our commitment to ensuring the potential risks associated with climate change, as well as opportunities arising from the transition to a low-carbon economy, had been identified, assessed, and effectively managed during the scheme year.

The Trustee is pleased to release this TCFD Report for the scheme year ending 31 October 2023 to highlight the progress against the targets that have been set.

Over the last couple of years, the Investment Committee ("IC") has actioned several changes focused on climate-related risks and opportunities, including implementing additional ESG guidelines within the segregated corporate bond mandate and adopting an enhanced ESG index within the synthetic equity mandate. Each year, the IC review the ESG (and climate) capabilities of each of our investment managers to ensure they remain in line with best practice and work with our Investment Consultant to engage with these investment managers on any potential areas of improvement in alignment with our ESG beliefs.

Our climate-related target for the period to 31 October 2023 was centred on improving the quality of the emissions data that we are able report. The Trustee is focused on ensuring good quality information before adopting a more meaningful, impactful target in the near-future. We are pleased to see emissions data coverage increase from 66% (2022) to 72% (2023), and we will continue to engage with our investment managers to ensure we can hit our 75% target.

To assess the potential climate-related impacts on the Plan's investment strategy and long-term objective, the Trustee carried out scenario analysis during the year ending 31 October 2022. This analysis was designed to understand the Plan's resilience under different climate scenarios, including considering potential impacts on the covenant. The results from this analysis are included in this report as the Trustee feels they remain valid for our strategy, however we have ensured climate-related considerations have fed into our strategic considerations throughout the year.

Chair of the Trustee of the Scottish & Newcastle Pension Plan

The TCFD Framework encompasses four key pillars:

Governance: Governance around climate-related risks and opportunities.

Strategy: Actual and potential impacts of climate-related risks and opportunities.

Risk Management: The identification, assessment and management of climate-related risks.

Metrics and Targets: Disclosure of key metrics and targets.



Why is climate change so important?

Recognising the potential impact upon our members

The systemic risk of climate change is present across the global economy and our financial systems. As a result, we have ensured climate considerations are at the centre of our investment thinking.

We know that in order to mitigate climate change, global decarbonisation is required: this presents both risks and opportunities for the Plan. Whilst there are transition costs that are expected to be incurred from decarbonisation action, it is vital to mitigate the impact of climate change. As global temperatures continue to rise, so does the level of physical and transition risk in investment portfolios. We recognise the importance of the global efforts required to stabilise and reduce global emissions and keep global average temperature rises within safe limits. This means that whatever comes next, we will face climate-related risks which need to be managed appropriately.

In order to better understand the Plan's impact upon and contribution to greenhouse gas production, we require better data. The Plan's Investment Committee, on behalf of the Trustee, has therefore set a target relating to data coverage, with the aim of improving the quality of emissions-related data that is available to the Trustee.

Global decarbonisation efforts are also expected to offer opportunities for the Plan. The Plan's Investment Committee, on behalf of the Trustee, will assess the appropriateness of these opportunities, both from an investment perspective as well as looking at the Plan's wider impact.

Climate science

Greenhouse gas ("GHG") emissions arise from the burning of fossil fuels for purposes such as transport or power. Emissions released into the atmosphere cause warming due to a blanketing effect. As global average temperatures rise, the entire fabric of the climate system changes.

Current state

Global governments have signed up to the Paris Agreement to limit global average temperature rises to well below 2°C, with ambitions towards 1.5°C, above pre-industrial levels. It is evident that the trajectory is not currently on track to meet this.

The transition to a low-carbon economy

To decarbonise the global economy, policies, technologies and market preferences are expected to shift in favour of low-carbon solutions.

Physical risks from climate change

Physical risks arise from the physical impacts of climate change, including both sudden onset natural disasters and slower shifts in weather patterns. They are expected to scale up in the long term due to rising emissions and global average temperatures.

TCFD Summary

Governance

Governance around climate-related risks and opportunities

We have agreed a climate delegation framework, with responsibilities agreed including:

Trustee – We, the Trustee, hold ultimate responsibility for managing the Plan. This includes setting the Plan’s ESG policy, which was updated in September 2023.

Investment Committee (“IC”) – Whilst overall responsibility lies with the Trustee, the general ongoing management of Plan assets is delegated to the IC, along with the responsibility of assessing the impact of climate considerations on Plan assets. The IC, working with the Investment Consultant, manages ESG-related risks as they pertain to the Plan’s assets, to help the Trustee to execute its strategy and enhance long-term, sustainable financial stability.

Risk Committee – The general ongoing oversight of Plan risks, including ESG risks, is delegated to the Risk Committee, who will work with relevant advisors.

Investment Consultant – The Plan’s Investment Consultant provides climate-related advice to the IC at least annually, covering the inclusion of climate considerations in the governance arrangements, the quantification of climate risks within the investment strategy, the analysis of climate metrics and provision of training.

Other Advisors – The Plan’s Scheme Actuary, Covenant Advisor and Legal Advisor provide advice to the Trustee and the IC on climate-related risks and opportunities.

Investment Managers – The Trustee has delegated responsibility to the Plan’s investment managers for managing the Plan’s assets in line with the agreed mandates. This includes identifying, assessing and managing climate-related risks and opportunities in relation to the Plan’s investments as well as undertaking stewardship activity.




Strategy

Actual and potential impacts of climate risks and opportunities

Over 2022, the IC reviewed its long-term strategic allocation. As a result of the climate-related risks and opportunities identified, we implemented additional ESG guidelines within our segregated corporate bond mandate and implemented an index with enhanced ESG characteristics for our synthetic equity mandate.

In order to quantify the potential impacts on the Plan’s investment and funding strategy, the IC, on behalf of the Trustee, has identified the key time horizons relevant to the Plan. These have been determined by a blended view of the climate outlook and the Plan’s membership demographics.

The IC has evaluated the potential risks and opportunities over these timeframes, including analysis of the Plan’s position under three climate scenarios, two of which are shown below. A colour coded rating summarises the results of the modelled impact upon the climate-related risks and opportunities across the different time horizons. As part of this, the IC also considered Heineken UK’s sustainability strategy and potential impact on covenant.

Risk (Long Term, 13Y)	Plan Assets	Plan Liabilities		
Transition risk* (net zero scenario)			Low	
			Average	
Physical risk (current policies)			High	

* The directional impacts under the 2050 Net Zero and Divergent Net Zero scenarios are likely to be similar, albeit the magnitude and timing is expected to differ.

TCFD Summary

Risk Management

The identification, assessment and management of climate-related risks

Whilst overall responsibility lies with the Trustee, the general ongoing management of risks relating to the Plan is delegated to the Risk Committee, along with the responsibility of assessing the risks relating to climate considerations.

The Trustee has a framework to ensure risks are managed holistically. This includes analysis of climate risks at the Plan level and ensuring the Plan's investment managers are considering ESG risks and opportunities in alignment with the Trustee's ESG beliefs.

The Risk Committee and Investment Committee regularly review the risk register and have considered the key climate-related risks to the Plan, including but not limited to:

- Worsening covenant position associated with the impacts of climate change
- Investment managers do not adequately integrate financially material ESG factors in their risk management framework.
- Investment managers do not consider potential investment opportunities, which may be expected to benefit from climate change and provide upside opportunity for the portfolio.

In addition to the risk register, the Trustee and IC receive regular advice from their advisors on climate considerations.

The IC regularly reviews the Plan's investment managers' ESG capabilities. On an annual basis, the Investment Consultant provides an ESG assessment of each of the Plan's mandates. This results in mandate- and Plan-level ESG and climate scores. Our Investment Consultant, on behalf of the Trustee, use the results of these assessments to engage with our investment managers on any areas of improvement.

Metrics and Targets

Disclosure of key metrics and targets

The IC, on behalf of the Trustee, has selected, gathered and assessed the four climate metrics in the table below. Due to the nature of the Plan's investment strategy, which has a material allocation to illiquid assets, coverage of climate metrics is currently limited. This is why the Trustee has set a data coverage target. Whilst we have not reported on the Plan-level implied temperature rise ("ITR") (given data availability), we have considered the ITR for each underlying mandate. Reporting of Scope 3 emissions, where available, is included in the body of the report.

Metrics	Total GHG emissions (scope 1 & 2)		Carbon footprint (scope 1 & 2)		Implied temperature rise	
	Metric tCO ₂ e	Coverage	Metric tCO ₂ e/\$m	Coverage	Metric °C	Coverage
Total Portfolio	439,089	72%	87	72%	-	55%

Metrics	Carbon Footprint Data quality % of scope 1 & 2 emissions that are:			
	Verified	Reported	Estimated	Unavailable
Total Portfolio	8%	53%	12%	28%

Carbon footprint coverage	Baseline 30/06/2022	Current 30/06/2023	2024 Target (versus baseline)
Total Portfolio	66%	72% (+6%)	75% (+3%)

Where Next?



Consider further opportunities

In 2022, we enacted additional ESG guidelines within our segregated corporate bond mandate and chose an index with enhanced ESG characteristics for our synthetic equity mandate; here we have full control over the investment guidelines. However, at present there are limited further opportunities to integrate further ESG and climate factors into our assets, given other constraints on our investment strategy. Over the next several years, a number of Private Markets mandates are expected to repay, and the Trustee will give full consideration to ESG and climate risk integration as any capital is reinvested. We will also consider these risks should any rebalancing be required to take place in the Plan's assets.



Focus on improving data

We continue to recognise that high-quality data relating to climate metrics is important for feeding into our decision making. In recognition of this, we have adopted a short-term data quality improvement target. Our investment managers have made progress against this target over the last year. The Trustee, via its Investment Consultant, is engaging with our Investment Managers to seek further improvement in the quality and availability of carbon emissions intensity data.



Evolving our target

As the quality of our climate metrics data improves, we will seek to adopt a meaningful and impactful target, such as for carbon reduction. We seek to have a long-term, forward-looking view on target setting that can feed into our strategic thinking. As part of this, we will also monitor how best practice evolves across the industry to ensure we adopt a target that is both ambitious as well as practical. This will be a topic for discussion over the coming year as we hit the timescales associated with our short-term data quality improvement target (the reporting period for the year ending 31 October 2024).



TCFD Pillars

Describe the Trustee Board's oversight of climate-related risks and opportunities

Climate-related beliefs

The Trustee maintains an ESG Policy that sets out the Trustee's ESG beliefs and how these are implemented. Reviewing the ESG policy this year, the Trustee formally incorporated a policy on their agreed target of increasing carbon footprint data coverage to 75% of total portfolio by 30 June 2024, from a baseline of 66% as at 30 June 2022.

Climate considerations will be at the heart of our investment-related decision making, demonstrated through an agreed Climate Delegation framework. Reviewing the climate delegation framework last year, the Trustee formally incorporated the role of the Risk Committee, to whom the general ongoing oversight of Plan risks, including ESG risks, is delegated.

Oversight responsibilities of the Trustee Board

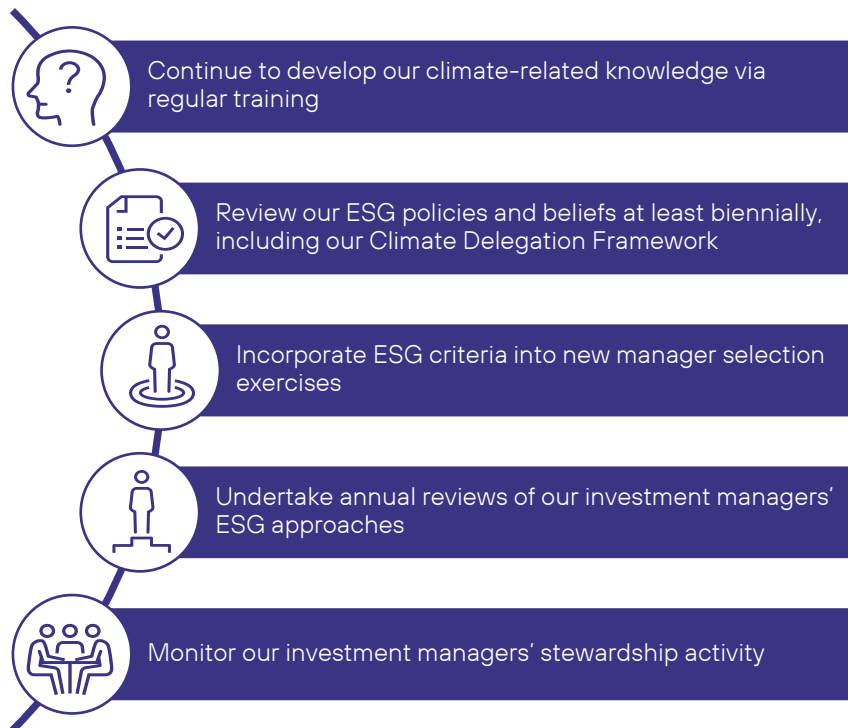
Whilst overall responsibility lies with the Trustee, the general ongoing management of Plan assets is delegated to the IC which includes the identification, assessment, and management of ESG-related risks. The Trustee meets at least four times a year and receives updates from the IC on ESG and climate change topics, as well as from our various advisors.

The Trustee measures the Investment Consultant against agreed objectives annually. Two of these objectives relate to effective advice on ESG risks and opportunities, and TCFD reporting.

Climate-related training

The Plan's Investment Consultant provided further climate-related training to the IC during the year to 31 October 2023, including training on Scope 3 emissions and their importance in decarbonisation action.

As part of our ESG Policy we have considered how our ESG beliefs are implemented. Our ESG implementation considerations are set out below:



Describe the Trustee Board's role in assessing and managing climate-related risks and opportunities

Climate Delegation Framework

The Trustee and its Advisers have their responsibilities clearly defined in a Climate Delegation Framework. The Advisers delivered governance-related advice through formal meetings. This provided opportunity for the Trustee to consider, discuss, and where it was appropriate, challenge the information provided.

Roles and Responsibilities

Trustee	<ul style="list-style-type: none">– Ensuring the Trustee has sufficient knowledge and understanding relating to climate-related risks and opportunities.– Setting and implementing a Climate Delegation Framework.– Incorporating climate-related considerations into the Plan's ESG Policy, ongoing risk management and strategic decisions.– Allowing for climate-related considerations when assessing and monitoring the strength of the sponsoring employer's covenant.– Ensuring that the external advisors have clearly defined responsibilities in respect of climate risk, and assessing advisors against their climate responsibilities.
Investment Committee (IC)	<ul style="list-style-type: none">– Receiving regular training on climate-related risks and opportunities.– Factoring in climate-related risk management capabilities into the selection, review and monitoring of investment managers.– Identifying climate-related risks and opportunities for the Plan and setting and monitoring metrics and targets.– Undertaking analysis of various climate scenarios.– Receiving updates on the Plan's investments from the Plan's Investment Consultant, including data on ESG metrics and progress against any targets set in relation to these metrics.– Overseeing delivery of TCFD reporting.– Providing regular updates to the Trustee on the climate-related risks the Plan is exposed to.
Risk Committee	<ul style="list-style-type: none">– Maintaining the Plan's risk register and corresponding actions.– Working with relevant advisors as appropriate to provide oversight over all ESG-related risks. The implementation of any actions around ESG-related risks will typically lie with either the IC and / or the Trustee

Describe the Trustee Board's role in assessing and managing climate-related risks and opportunities

Roles and Responsibilities

Investment Consultant

- Advising on the inclusion of climate considerations in the Plan's governance arrangements and decision making.
- Advising how climate-related risks and opportunities might affect the Plan's exposure to different asset classes.
- Assisting the Trustee in the selection and monitoring of appropriate climate-related metrics and targets.
- Providing training on relevant climate-related matters.

Scheme Actuary

- Assessing climate-related risks and opportunities in relation to the Plan's funding position and the implications for the Plan's funding and long-term objective.

Covenant Advisor

- Undertaking periodic reviews of the extent to which climate-related risks and opportunities might affect the Plan's sponsoring employer.

Legal Advisor

- Providing training to the Trustee on climate-related legal matters.
- Assist with the preparation of the Trustee's annual TCFD report.

Investment Managers

- Identifying, assessing and managing climate-related risks and opportunities in relation to the Plan's investments.
- Exercising voting rights and engaging with portfolio companies in relation to climate-related risks and opportunities.
- Providing climate-related metrics to the Plan's Investment Consultant in relation to the Plan's investments with a focus on quality.

Strategy

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

Agreed timeframes

The Trustee has identified the following timeframes, which have been determined by a blended view of the: climate outlook, membership demographics, funding position, objective and ability to pay benefits. We will review the chosen timeframes on a regular basis and assess the extent to which we believe the Plan will have sufficient assets to meet expected future payments over its journey plan.

Timeframe	Investment Horizon			Climate Horizon			Risks to Assets	Risks to Liabilities	Risks to Sponsor
Short term <i>3 years</i>	Actuarial review cycle	Potential further de-risking	Review of long-term objective ("LTO") and illiquid mandates	Company target setting	Improvement in data quality	Government responses to policy action	Transitional risks such as the costs associated with global decarbonisation anticipated	Changes to yields (as for assets), inflation and longevity expectations due to expected transition costs or rising physical risks	The need to adapt to an economy in a global transition
Medium term <i>8 years</i>	LTO target & consideration of insurance options			Companies hitting interim 2030 targets		Alignment with SDGs			
Long term <i>13 years</i>	Duration of the Plan's liabilities						Physical risks such as damage to assets caused by extreme weather events anticipated		
Very long term <i>28 years</i>	c. 90% of remaining liabilities paid			Physical damages expected to be incurred		Companies setting Net Zero by 2050 targets			

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

Impact on assets

Over the next few pages, we touch on our latest analysis of potential climate impacts on assets. Whilst we have not undertaken updated climate scenario analysis this year, we consider climate-related risks and opportunities as part of our strategic discussions with our Investment Consultant. In terms of implemented opportunities, in the past the IC have implemented bespoke ESG guidelines within the segregated corporate bond mandate and an index with enhanced ESG characteristics for the synthetic equity mandate.

Impact on liabilities

In addition to the risks to the Plan's assets, the Plan manages the impact on liabilities by hedging a high proportion of the liabilities' exposure to interest rate and inflation movements. The Trustee also recognises that the changes in how long members are expected to live and draw their pensions from the Plan ("longevity risk") is a potentially material source of risk to the funding level. The Plan hedges against some of the longevity risk through a longevity swap.

During the year, the Scheme Actuary conducted longevity analysis that considers climate risk, taking account of the protection provided by the Plan's longevity swap. The modelling indicates the following scenario outcomes, each compared with longevity assumptions constructed with no explicit allowance for climate-related risks:

- A temperature rise of 1.5-2°C from pre-industrial levels might mean 2.5% higher Plan liabilities and 21 months higher life expectancy for older generations.*
- A temperature rise of around 3.5-4°C from pre-industrial levels might mean 1.1% lower Plan liabilities and over 5 years' lower life expectancy for younger generations.*

Based on this analysis, longevity changes arising from the direct and indirect impact of climate change are not currently expected to have a material impact on the funding strategy, but the Trustees will keep this under review.

The direct and indirect impacts of climate change may be material to the funding strategy of the Plan. The impact of different temperature pathways on the Plan's liabilities is also considered as part of the scenario analysis shown on the following pages, though this is reflected in surplus and deficit projections rather than the isolated impact. The Trustee will continue to consider climate risk as part of liability considerations as modelling and information evolves.

* It is important to note that these "Results" are based on longevity projection models and third-party data which may produce output that differ materially from actual outcomes. The Results are set out for informational purposes only and should not be used for any other purpose. In particular, the Results should not be relied upon and they are not suitable for repurposing, copying, redistributing or modifying. The model provider disclaims all liability and makes no representations about the suitability for any purpose of the Results and such content is supplied on an as is basis, without any warranty of any kind.

Strategy

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

Impact on the sponsor

The Covenant Adviser has identified and analysed the climate-related risks faced by the Sponsor during the year; both physical and transitional risks. In carrying out this analysis, the Covenant Advisor has considered the ability of the sponsor, at a Group level, to be able to cover the Plan's climate funding risk. The quantum of the climate funding risk was estimated at c.£260m by taking the secondary funding target deficit in the Plan from mid-2023 and overlaying the expected change in funding position under climate scenario analysis carried out last year by the Investment Consultant. The climate scenario selected was Current Policies (compared with the Baseline scenario) at 28 years.

Timeframe	Although the Plan is well funded, Self Sufficiency (and associated lower covenant dependency) is not targeted until 2039, meaning covenant climate risks will remain a consideration for some time.
Sponsor climate dependency	The Group's climate dependency (for water/barley etc) is reflected in its relatively robust climate-driven 'Evergreen' strategy which embeds sustainability / responsibility into its governance, risk management, environmental targets (including net zero by 2040) and TCFD disclosure.
Sponsor profitability	The Group's three key climate risks with greatest financial impact are regulation / pricing on greenhouse gas ('GHG') emissions, water scarcity and cost of raw materials. The analysis shows reasonably robust Group climate resilience with 'worst case' Group operating profits remaining several multiples above the c.£260m Plan climate funding risk. This is for the 1.5°C scenario where GHG pricing is at its highest. Cover could improve following any Group mitigation actions.
Climate risk mitigation	The Group's strategies, including net zero by 2040, renewable energy use, sustainable agricultural commodities, water stewardship and recycling / reusable strategies, could mitigate a number of the additional key risks including GHG pricing, increased regulation, and investor and social concerns.
Summary	No immediate threats to covenant strength have been identified and high-level quantitative and qualitative analysis indicates reasonably robust Group climate resilience. As all the climate risks identified by the Group might create significant costs by 2030, notably GHG pricing, they should be kept under review. However, whilst climate financial uncertainties remain, their impacts are likely to be reduced by mitigation actions.

Strategy

Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the Trustee's overall risk management

During 2022, the IC assessed the potential impacts on the Plan's assets and liabilities under three different climate scenarios defined by the Network for Greening the Financial System ("NGFS"), interpreted and modelled by Moody's Analytics. The IC, in conjunction with its Investment Consultant, chose these scenarios to provide a balanced set of hypothetical constructs with which to analyse the potential risks and opportunities across the Plan's assets. Forward-looking analysis always involves uncertainty, however these scenarios help to examine different possible outcomes in terms of emissions, global average temperatures, and associated transition and physical risks, for example.

Net Zero 2050

- Paris aligned scenario – temperatures kept to a 1.5°C rise this century.
- CO₂ emissions reach net zero in 2050 globally, but only some regions achieve global greenhouse gas net zero by 2050.
- Immediate global action applied uniformly to decarbonise hence relatively high transition costs incurred, particularly in the near term.
- Physical damages are minimised.

Divergent Net Zero

- Paris aligned scenario – temperatures kept to a 1.5°C rise this century.
- Divergence in decarbonisation policies across sectors results in higher transition costs than the Net Zero 2050 scenario e.g. the transport and building sectors instil more stringent climate policies than the energy and industrial sectors.
- Physical damages are minimised.

Current Policies

- The world largely fails to meet the ambition set out in the Paris Agreement, resulting in 3.8°C of warming this century.
- Current global climate policies are implemented, but no further ramping up of climate policy ambition over time, resulting in lower transition costs.
- Higher physical risks arise as a result of rising global temperatures, with shifts in weather patterns and an increased incidence of natural disasters.

Limitations:

The Trustee accepts there are limitations involved within climate scenario analysis, including the potential underestimation of climate risk. The Trustee therefore uses the scenario analysis for comparative purposes rather than analysing the absolute magnitude of results. Further detail can be found in the Appendix.

Describe the impact of climate-related risks and opportunities on the Plan's strategy and planning

Materiality matrix of climate-related risks and opportunities

The IC, in conjunction with its advisors, has used a colour-coded rating to summarise the results of the modelled impact upon the Plan of climate-related risks and opportunities across the different time horizons agreed (analysis shown on next few pages).

Assets – The Plan's assets are diversified and are expected to react differently to various climate scenarios.

Liabilities – The Plan's liabilities are well hedged and significantly protected from adverse changes to yields and inflation. Potential changes in longevity assumptions are a material risk, although some of this risk is mitigated through a longevity swap.

Covenant – Due to the nature of the Sponsor's business area, it faces a number of risks relating to ongoing climate change. However, mitigation actions could lessen the impact of climate-related risks.

Risk	Time frame	Government Bonds	Corporate Bonds	Higher Yielding Credit	Long Lease Property	Private Markets	Equity	Liabilities	Sponsor
Transitional (net zero scenario)	Short term (3 years)	Average	Average	Low	Average	Average	Average	A temperature rise of 1.5-2°C from pre-industrial levels might mean 2.5% higher Plan liabilities and 21 months higher life expectancy for older generations.*	The largest transitional risks to the sponsor identified were regulation / pricing on GHG emissions and increased cost of raw materials. The covenant analysis suggests risks to covenant are low.
	Medium term (8 years)	Average	Average	Average	Average	Average	Average		
	Long term (13 years)	Average	Average	Average	Average	Average	High		
	Very long term (28 years)	Low	Average	Average	Average	Average	High		
Physical (current policies scenario)	Short term (3 years)	Average	Average	Average	Average	Average	Average	A temperature rise of around 3.5-4°C from pre-industrial levels might mean 1.1% lower Plan liabilities and over 5 years' lower life expectancy for younger generations.*	The largest physical risks to the sponsor identified were water scarcity. The covenant analysis suggests risks to covenant are low.
	Medium term (8 years)	Average	Average	Average	Average	Average	Average		
	Long term (13 years)	Average	Average	Average	Average	Average	High		
	Very long term (28 years)	Low	Average	Average	High	High	High		
Expected allocation change		↑	↑	↓	↓	↓	↓		

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Strategy

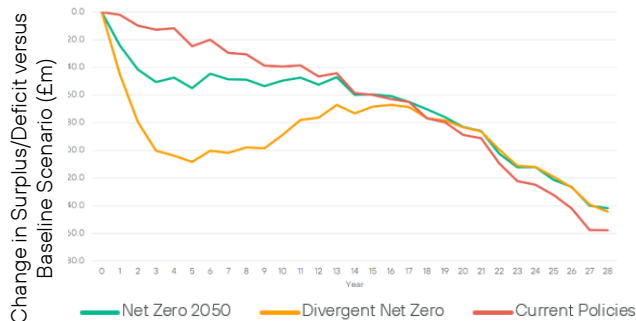
Describe the resilience of the Plan's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

Climate scenario analysis

The Trustee has reviewed the latest scenario analysis (undertaken during the scheme year to 31 October 2022) and determined that further analysis, outside of the regulatory cycle, was not required. This was a result of minimal material changes to the investment strategy and funding position over the scheme year, and the absence of significant increases in the availability of data. The Trustee agreed to conduct scenario analysis in line with the regulatory reporting cycle, with the next set of analysis likely to take place in 2025.

The latest analysis, demonstrates that over the short to medium term, the costs associated with the transition to a lower carbon economy are clear within the Net Zero 2050 and Divergent Net Zero scenarios. This reinforces the focus on investing in companies that are prepared for the transition to a low carbon economy. Over the longer term, the costs relating to physical damages are significant within the Current Policies scenario, with temperatures reaching a c.2.4°C rise above pre-industrial levels by the end of 2050. The model predicts that this could cause a c.£158m reduction in surplus.

The IC recognises this modelling is based on top-down macroeconomic assumptions and analysis, and so will not always account for specifics of underlying investment funds or holdings. More detail is provided in the Appendix.



Scenario	Expected annual asset return drag compared with the Baseline scenario (1 = 0.01%)				Expected change in funding position compared with the Baseline scenario			
	3 years	8 years	13 years	28 years	3 years	8 years	13 years	28 years
Net Zero 2050	-46	56	27	-30	£-50m	£-49m	£-47m	£-142m
Divergent Net Zero	-47	70	29	-30	£-100m	£-98m	£-67m	£-145m
Current Policies	-	50	5	-44	£-12m	£-30m	£-44m	£-158m

Strategy

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

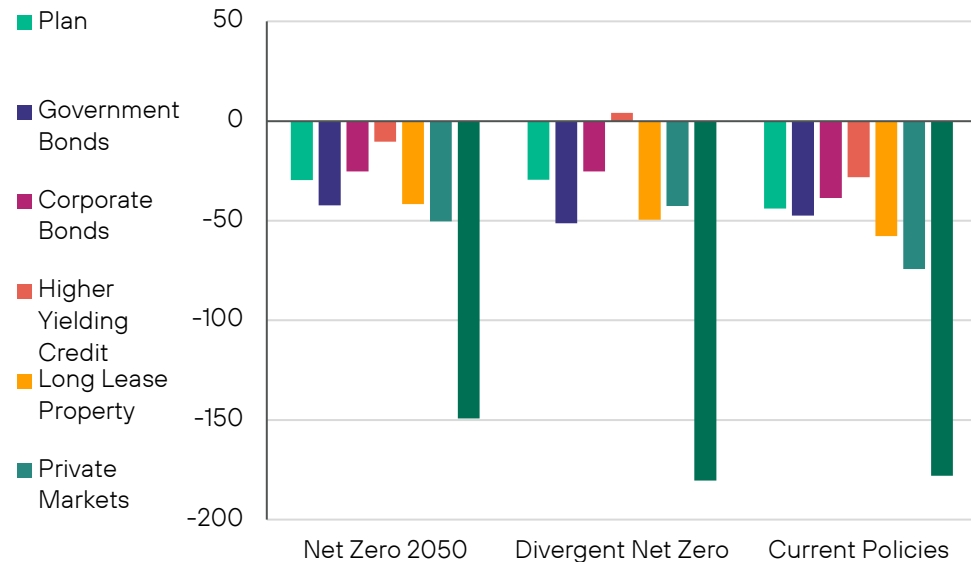
Climate scenario analysis (continued)

In the latest analysis, the IC considered the potential impacts on different asset classes to understand which allocations might contribute to the Plan's climate risk and how this might evolve over time. This analysis, also included in the previous TCFD report, covered all asset classes in which the Plan invests.

The Plan's synthetic equity mandate has potentially the greatest exposure to transitional and physical risk, given the economic sensitivity of the asset class. The IC however, notes that the equity allocation is expected to be reduced over time, with possible mitigation provided by the fact that is currently structured to replicate the return on a "low carbon" index.

These risks at asset class level will be considered as the Plan progresses along its de-risking journey.

The return drag of the asset classes that feature in the Plan's investment strategy under different climate scenarios relative to the Baseline scenario (ann. bps) at year 28.



Source: Investment Consultant

Note: Additional detail on scenario analysis can be found in the appendix

Risk Management

Describe the Trustee's processes for identifying, assessing and managing climate-related risks

We depict below the Trustee's climate-related risk management process. This is designed to allow identification of the most material risks for the Plan and the development of controls and processes to manage these.

Risk identification and prioritisation

Risk register: The Trustee reviews the climate-related considerations in our risk registers at least annually.

Training: The Trustee and IC receive climate change training to understand potential impacts of climate-related risks.

Roles & responsibilities: The Trustee has agreed with the Plan's advisers their various roles and responsibilities on providing advice covering the identification, assessment and management of climate-related risks across investment, actuarial, legal and covenant matters.

Investment strategy impact

Climate scenario analysis: The IC seeks to quantify the potential of climate change on the Plan's investment and funding strategy (as discussed on pages 15-18).

ESG integration: Where possible, the IC ensures ESG considerations are integrated within each mandate. For example, selecting an index with enhanced ESG characteristics for the synthetic equity mandate and including ESG investment guidelines within the corporate bond mandate.

Climate risk monitoring

Assessing investment managers: The IC assesses the ESG capabilities of our investment managers on an annual basis (further detail provided on pages 20-21).

Assessing climate metrics: The IC monitors a set of climate-related metrics on an annual basis, in line with TCFD recommendations (further detail provided on pages 24-27).

Stewardship

Assessing investment managers: The IC assesses the stewardship activities and capabilities of our investment managers on an annual basis to ensure these align with our ESG beliefs and policy.

Risk Management

Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the Trustee's overall risk management

Investment managers

Whilst the Trustee retains ultimate responsibility, the Trustee delegates day-to-day management of the investments to investment managers, and the Trustee expects the managers to be identifying, assessing and managing climate-related risks on an ongoing basis on the Trustee's behalf.

The Investment Consultant provides the Trustee with an annual assessment report that assesses each of the underlying managers with regards to their ESG capabilities, where each mandate is allocated an ESG score of between 0 to 5 as well as an explicit climate score. Example criteria of this assessment under each area are shown below. While the Trustee relies on its Investment Consultant, it ensures alignment to their view through the annual consultant review process.

At a high level, the Plan's investment managers received at least satisfactory ratings. The main area of improvement was in the category "Stewardship". The high-level ratings are summarised on the following page. The Trustee uses this assessment to identify areas of improvement and targets engagement efforts towards these areas. The Trustee expects to see progress in the Investment Managers' capabilities and the Investment Consultant's considerations each year.

Assessment category	Example evaluation criteria
Investment approach	Are the fund's climate objectives quantifiable with interim targets set?
Risk management	Does the manager have dedicated individuals within the ESG team with responsibility for oversight of ESG processes?
Stewardship	Can the manager provide a case study example demonstrating effective engagement on climate-related issues?
Reporting	Does the manager publish a variety of TCFD metrics and is this available in quarterly reports?
Collaboration	Is the manager a member of the Net-Zero Asset Managers Initiative? If not, is there a valid reason why?

Stewardship Activity

The Trustee recognises the importance of stewardship in driving change and aiding the transition to a lower carbon economy.

The Trustee delegates stewardship responsibilities to its Investment Managers, and the managers should engage and vote on all issues, including climate, in the best interest of the Plan's members.

This is monitored through the Implementation Statement produced by the Plan's Investment Consultant.

Risk Management

Meets Additional Impact Criteria

Meets Additional Sustainable Criteria

Meets Traditional Criteria

Partially Meets Criteria

Significantly Fails to Meet Criteria

Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the Trustee's overall risk management

Manager	Investment Approach	Risk Management	Stewardship	Reporting	Collaboration	Climate
Government Bonds	Meets Traditional Criteria	Meets Traditional Criteria	Partially Meets Criteria	Meets Traditional Criteria	Meets Traditional Criteria	Meets Traditional Criteria
Asset-Backed Securities	Meets Traditional Criteria	Meets Traditional Criteria	Partially Meets Criteria	Partially Meets Criteria	Meets Traditional Criteria	Partially Meets Criteria
Corporate Bonds	Meets Additional Sustainable Criteria	Meets Additional Sustainable Criteria	Meets Traditional Criteria	Meets Additional Sustainable Criteria	Meets Traditional Criteria	Meets Additional Sustainable Criteria
Synthetic Equity	Meets Additional Sustainable Criteria	Meets Traditional Criteria	Meets Additional Sustainable Criteria	Meets Traditional Criteria	Meets Additional Sustainable Criteria	Meets Additional Sustainable Criteria
Higher Yielding Credit – Manager 1	Meets Traditional Criteria	Meets Traditional Criteria	Meets Traditional Criteria	Partially Meets Criteria	Meets Traditional Criteria	Meets Traditional Criteria
Higher Yielding Credit – Manager 2	Meets Traditional Criteria	Meets Traditional Criteria	Partially Meets Criteria	Meets Traditional Criteria	Partially Meets Criteria	Partially Meets Criteria
Long Lease Property	Meets Traditional Criteria	Meets Traditional Criteria	Significantly Fails to Meet Criteria	Partially Meets Criteria	Meets Additional Sustainable Criteria	Meets Traditional Criteria
Private Markets – Manager 1	Significantly Fails to Meet Criteria	Partially Meets Criteria	Partially Meets Criteria	Significantly Fails to Meet Criteria	Meets Additional Sustainable Criteria	Significantly Fails to Meet Criteria
Private Markets – Manager 2	Partially Meets Criteria	Partially Meets Criteria	Significantly Fails to Meet Criteria	Partially Meets Criteria	Partially Meets Criteria	Significantly Fails to Meet Criteria
Private Markets – Manager 3	Partially Meets Criteria	Partially Meets Criteria	Significantly Fails to Meet Criteria	Significantly Fails to Meet Criteria	Meets Traditional Criteria	Partially Meets Criteria
Private Markets – Manager 4	Partially Meets Criteria	Partially Meets Criteria	Significantly Fails to Meet Criteria	Partially Meets Criteria	Meets Traditional Criteria	Partially Meets Criteria

Risk Management

5 – Significant Impact / Almost certain
 4 – Major / Likely
 3 – Moderate / Possible
 2 – Minor / Unlikely
 1 – Insignificant / Nearly impossible

Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the Trustee’s overall risk management

Risk register

Climate-related risks and opportunities are embedded into the risk management process and are captured within wider investment risk assessments. During the scheme year, the Risk Committee reviewed and agreed the Plan’s risk register. The Risk Committee reviews the risk register in detail on an annual basis to develop and maintain these processes, with support provided by advisors, the IC and investment managers to quantify these risks (e.g. via climate scenario analysis). In addition, at least quarterly the Risk Committee receives updates from the IC on the development and emergence of investment risks. The risk register includes actions the Trustee will take in managing climate-related risks such as manager monitoring and regular reviews with the Principal Employer.

The Plan’s risk register is outlined below and on the following page and captures the impact and likelihood of climate risks which drive discussions on priority and actions by the Trustee.

	Potential issues:	Potential mitigating actions:	Risk Impact	Risk Likelihood
Principal Employer covenant	<ul style="list-style-type: none"> Worsening covenant position associated with the impacts of climate change (transitional and physical). Damage to reputation and/or legal challenge due to poor or inconsistent climate practices. 	<ul style="list-style-type: none"> Triennial review of sponsor covenant conducted by the Plan's covenant advisor. Chair of Trustee meets sponsor Financial Director regularly. Funding Committee meets regularly to consider covenant issues. Quarterly monitoring of key covenant KPI's through the IRM dashboard. 	5	1
Funding	<ul style="list-style-type: none"> Funding strategy does not adequately capture ESG factors or climate change. Funding target is increased at future actuarial valuations due to higher expected costs / greater uncertainty / weaker Principal Employer due to climate-related reasons. 	<ul style="list-style-type: none"> Funding committee review funding strategy with input from advisors on an annual basis. Plan goals are reviewed annually by Trustee board. Actuary, Principal Employer, investment consultant and covenant consultant all involved in ongoing funding level assessment and IRM. 	4	1

Risk Management

5 – Significant Impact / Almost certain
 4 – Major / Likely
 3 – Moderate / Possible
 2 – Minor / Unlikely
 1 – Insignificant / Nearly impossible

Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the Trustee’s overall risk management

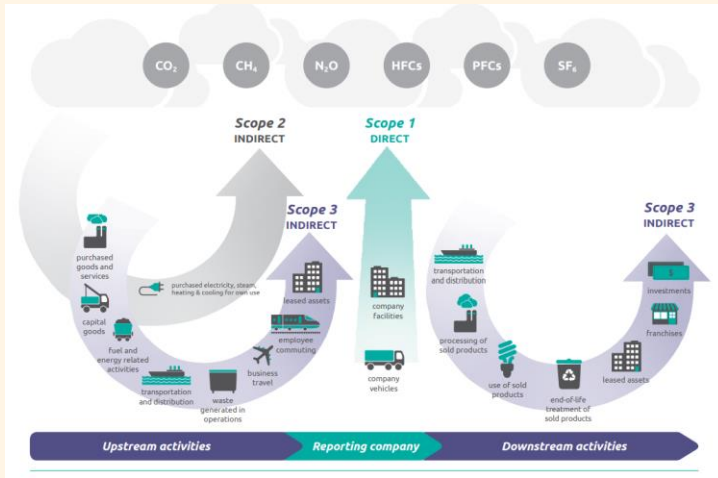
	Potential issues:	Potential mitigating actions:	Risk Impact	Risk Likelihood
Investment strategy	<ul style="list-style-type: none"> • Cost of longevity insurance increases due to climate change. • Asset mispricing due to the impacts of climate change and the transition to low-carbon economy and/or physical impacts of climate change. 	<ul style="list-style-type: none"> • Asset & liability studies undertaken as required. • Monitoring of investment performance reviewed at quarterly Investment Committee meetings. Annual audit of investments. • A joined-up approach to funding & investments. Quarterly IRM reporting. • Monthly review of Plan's investments against risk appetite. • Agreed funding and long-term strategy which is reviewed as part of the formal valuation exercise. • Longevity swap. • Continued monitoring of investments against the Trustee's ESG policy and climate target(s), and regular (at least triennial) climate scenario modelling. 	3	3
Asset and investment manager allocations	<ul style="list-style-type: none"> • Investment managers do not adequately integrate financially material ESG factors (including climate risks) into their risk management framework. • Investment managers do not adopt effective stewardship or do not collaborate to encourage best practice in addressing systemic climate risks. • Investment managers do not consider potential investment opportunities which may be expected to benefit from climate change and provide upside opportunity for the portfolio, or individual asset classes. 	<ul style="list-style-type: none"> • T&Cs of engagement with fund managers allows for level of redress in the event of financial loss arising from investment without IMA or not acting properly on valid and timely instructions. • Quarterly monitoring of investment performance and managers. • Annual evaluation of investment consultant objectives. • Monitoring managers and asset classes on the risks and opportunities that arise from climate change and how these are managed on an ongoing basis. 	3	1

Metrics and Targets

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

The IC agreed to annually measure, monitor and publish four climate metrics :

1. Absolute emissions metric: Total greenhouse gas emissions (scope 1 & 2 and scope 3)
2. Emissions intensity-based metric: Carbon footprint (scope 1 & 2 and scope 3)
3. Portfolio alignment metric: Implied temperature rise ("ITR")
4. Additional climate change metric: Data quality



Metrics

Greenhouse gas ("GHG") emissions are a key factor to consider in the context of climate change. Reducing the amount of GHGs in the atmosphere is extremely important for mitigating climate change and reducing the extent of physical damage from extreme weather events. The Trustee chose four climate-related metrics which are in line with the recommendations set out by the DWP. This is our second year of gathering these metrics and so we have begun to discuss trends and any follow up actions. The Investment Consultant gathers this data from the investment managers on behalf of the Trustee. This section shows the latest metrics gathered for the Plan's assets.

The Trustee has reported, where available, on Scope 1 & Scope 2 emissions and, separately, Scope 3 emissions. However, the Trustee noted that Scope 3 emissions reporting is heavily reliant on estimates and there are issues such as double counting and transparency within supply chains. The Scope 3 figures stated within this report should therefore be treated with caution.

Monitoring the implied temperature rise metric provides a forward-looking perspective to feed into strategic discussions, whereas emissions reporting is backward-looking in nature.

Data coverage

The Trustee has agreed a target to increase carbon footprint data coverage to 75% of total portfolio by 30 June 2024. This reporting year, the Trustee has seen data coverage go from 66% to 72%. Whilst this is a step in the right direction, the Investment Consultant will continue to engage with the investment managers on data quality and coverage on behalf of the Trustee.

Metrics and Targets

Disclosure of Scope 1 and Scope 2 greenhouse gas (GHG) emissions (as at 30 June 2023)

Manager	Strategic allocation %	Total GHG emissions Scope 1 & 2 (tGHG of CO ₂ e)		Carbon footprint Scope 1 & 2 (tGHG/£1m)		Carbon Footprint Data Quality % of scope 1 & 2 emissions that are			
		Metric	Coverage	Metric	Coverage	Verified	Reported	Estimated	Unavailable
Government Bonds – Mandate 1	30.0%	373,797	100%	192	100%	-	100%	-	-
Government Bonds – Mandate 2		6,627	100%	192	100%	-	100%	-	-
Asset-Backed Securities		-	-	-	-	-	-	-	-
Corporate Bonds	26.5%	11,945	88%	31	88%	-	61%	27%	12%
Synthetic Equity	6.0%	-	-	-	-	-	-	-	100%
Higher Yielding Credit – Mandate 1	4.8%	21,355	73%	124	73%	-	32%	41%	27%
Higher Yielding Credit – Mandate 2	10.2%	4,405	19%	96	19%	-	13%	6%	81%
Long Lease Property	7.5%	10	100%	6	100%	100%	-	-	-
Private Markets – Mandate 1	0.0%	2,024	100%	1,085	100%	-	2%	98%	0%
Private Markets – Mandate 2	1.7%	9,989	96%	144	96%	-	14%	82%	4%
Private Markets – Mandate 3	3.2%	8,810	100%	69	100%	-	79%	20%	0%
Private Markets – Mandate 4	1.8%	-	-	-	-	-	-	-	100%
Private Markets – Mandate 5	1.0%	94	38%	6	38%	-	38%	-	62%
Private Markets – Mandate 6	7.2%	34	11%	3	11%	-	11%	-	89%
Total Portfolio	100%	439,089	72%	87	72%	8%	53%	12%	28%

Further caveats and detail can be found in the Appendix.

Metrics and Targets

Disclosure of Scope 3 greenhouse gas (GHG) emissions and other metrics (as at 30 June 2023)

Manager	Strategic allocation %	Total GHG emissions Scope 3 (tGHG of CO2e)		Carbon footprint Scope 3 (tGHG/£1m)		Implied temperature rise	
		Metric	Coverage	Metric	Coverage	Metric	Coverage
Government Bonds – Mandate 1	30.0%	-	-	-	-	1.5 – 2°C	100%
Government Bonds – Mandate 2		-	-	-	-	1.5 – 2°C	100%
Asset-Backed Securities		-	-	-	-	-	-
Corporate Bonds	26.5%	68,670	87%	177	87%	1.8°C	74%
Synthetic Equity	6.0%	-	-	-	-	-	-
Higher Yielding Credit – Mandate 1	4.8%	15,334	68%	185	68%	1.9°C	68%
Higher Yielding Credit – Mandate 2	10.2%	32,001	19%	694	19%	2.7°C	20%
Long Lease Property	7.5%	3,055	100%	16	100%	-	-
Private Markets – Mandate 1	0.0%	2,565	100%	1,376	100%	-	-
Private Markets – Mandate 2	1.7%	5,051	96%	73	96%	-	-
Private Markets – Mandate 3	3.2%	15,704	100%	122	100%	-	-
Private Markets – Mandate 4	1.8%	-	-	-	-	-	-
Private Markets – Mandate 5	1.0%	51,700	38%	3,517	38%	-	-
Private Markets – Mandate 6	7.2%	72	10%	6	10%	-	-
Total Portfolio	100%	194,152	42%	170	42%		55%

Further caveats and detail can be found in the Appendix.

Metrics and Targets

Describe the targets used by the Trustee to manage climate-related risks and opportunities and performance against targets

Target setting

The Trustee has set a target of having carbon footprint (scope 1 & 2) data coverage at 75% for the total portfolio by the October 2024 TCFD report.

The Trustee recognises the importance of improving data quality and availability in relation to carbon footprint. The target set by the Trustee effectively ensures that the Plan is making progress against the baseline. To achieve this target, the Trustee intends to continue engaging with the Investment Managers via its Investment Consultant.

The coverage and data quality in the Plan's mandates has generally shown slight improvements. This year, the Investment Consultant has been able to estimate some carbon footprint data entries using mandate-level greenhouse gas emissions and AUM data from the investment managers. This has contributed to an increase of c.6% in carbon footprint coverage over the last 12 months.

As coverage and data quality improve, we will seek to the adopt a more meaningful and impactful long-term decarbonisation target.

Carbon footprint coverage	30 June 2022 (Baseline)	30 June 2023 (Current)	30 June 2024 Target
Total Portfolio	66%	72%	75%



Appendix

Scenario analysis appendix

Modelling principles

The Plan's Investment Consultant, Isio, partnered with Moody's to deliver a climate change model during the scheme year to 31 October 2022. Please see an overview below:

1. Selection of climate scenarios from the Network for Greening the Financial System. The interpretation and implementation of these scenarios are detailed below, across these building blocks.
2. Inclusion of climate scenarios within Moody's climate model, composed of two building blocks: a socioeconomic model and a climate model. The socioeconomic model is the REMIND-MAGPIE general equilibrium model, modelling macroeconomic growth and energy systems. This assumes that markets are efficient and sets out traditional economic assumptions around the evolution of economic markets. The climate model is the MAGICC 6 model, modelling climate and weather. The model runs 600 climate scenario projections and takes the median outcome for each climate scenario: baseline, net zero 2050, divergent net zero and current policies. There is interplay between these models.
3. The investment model is Isio's SOFIA model. This determines how different asset classes will react under the different climate change scenarios analysed, and across time. It is also composed of two building blocks: the first is Moody's Economic Scenario Generator, modelling economic pathways; and the second is SOFIA, Isio's proprietary investment model, which models the impact on investments. SOFIA assumes that the strategy remains constant over the full projection period, and assets are annually rebalanced back to the original allocations.
4. The output is an understanding of the potential impacts on investment strategy and asset class outcomes, as well as the funding position. In particular, the potential impacts of expected rising transitional and physical costs associated with climate change are assessed.

Scenario analysis appendix

Modelling limitations

The models are based on assumptions and simplifications in terms of the climate-related impacts and the investment implications. They are not intended to be a perfect prediction of the future but rather provide the Trustee with hypothetical constructs.

No guarantee can be offered that actual outcomes will fall within the range of simulated results. Actual outcomes may be better than the simulated 95th percentile or worse than the simulated 5th percentile.

The only risk factors considered in the modelling are those that affect the values of pension schemes' assets. The modelling results should be viewed alongside other qualitative considerations including portfolio complexity, governance burden, and liquidity risk.

The model's projections are sensitive to the starting position and the econometric assumptions. Changes to the assumptions can have a material impact upon the output. There can be no guarantee that any particular asset class or investment manager will behave in accordance with the assumptions. Newer asset classes can be harder to calibrate due to the lack of a long-term history.

Compliance Statement

The strategy modelling material in this report is summarised from a longer report. For details of the modelling assumptions and Technical Actuarial Standards compliance, please refer to the report produced by Isio for Trustee entitled TCFD - Strategy & Risk Management (dated October 2022).

Metrics and Targets

Metrics appendix

Climate metrics definitions

The IC selected and monitored four climate metrics during 2023:

1. Absolute emissions metric: Total greenhouse emissions (scope 1 & 2 and scope 3)

- *Total amount of greenhouse gas emissions emitted by the underlying portfolio companies, attributed to the investor based on the total investment in each company.*

2. Emissions intensity-based metric: Carbon footprint (scope 1 & 2 and scope 3)

- *An intensity measure of emissions that assesses the level of greenhouse gas emissions arising from a £1 million investment in a company.*

3. Portfolio alignment metric: Implied temperature rise ("ITR")

- *The temperature pathway the mandate aligns to, expressed as a projected increase in global average temperatures by the end of the century. A Paris-aligned strategy should have an ITR of 1.5°C.*
- *This metric is reliant on the modelling methodologies adopted by the Plan's investment managers.*

4. Additional climate change metric: Data quality

- *Exposure to emissions data that is verified, reported, estimated and unavailable:*
- *Verified: Data that has been independently verified.*
- *Reported: Data directly reported by the company.*
- *Estimated: Data that has been estimated by the investment manager or an ESG data provider.*
- *Unavailable: Data that is not available under any of the other categories.*

Metrics and Targets

Metrics appendix

Climate metrics supporting information

The following caveats support the table on pages 25 and 26.

- Source: Investment managers, Investment Consultant calculations.
- tCO₂e: Tonnes of carbon dioxide equivalent, where CO₂e expresses the impact of each different greenhouse gas in terms of the amount of CO₂ that would create the same amount of warming.
- EVIC: Enterprise value including cash.
- Coverage: Denotes the % of each fund where data is available. Figures rounded to nearest whole number or percentage.
- Private Markets Mandate 6 as at 30 June 2022. Long Lease Property and Private Markets Mandates 1, 2 and 3 as at 31 December 2022. Higher Yielding Credit Mandate 1 carbon footprint as at 31 July 2023 but coverage figures as at 30 June 2023. All other data as at 30 June 2023.
- Cash and mandates with immaterial asset values have been excluded from the coverage calculations, with the remaining assets scaled to 100% using asset values as at 30 June 2023.
- Government Bond Mandates 1 and 2 absolute emissions: market value of total long exposure of gilts divided by market value of total gilts in issuance multiplied by total UK emissions.
- Corporate Bonds and Private Markets mandate 6 report carbon footprint in tonnes of CO₂e per \$1 million of EVIC.
- Private Markets Mandates 1, 2 and 3 coverage figures are calculated based on the net asset value of companies.
- Private Markets Mandates 1, 2, 3 and 5 carbon footprints estimated by the Investment Consultant based on fund/mandate AUM.
- Higher Yielding Credit Mandate 2 report carbon footprint in tonnes of CO₂e per \$1 million invested.
- Long Lease Property approximate EVIC with GAV where GAV is the sum of the market value of all assets within the fund.

This report has been prepared for the sole benefit of the Trustee of the Scottish & Newcastle Pension Plan and based on their specific facts and circumstances and pursuant to the terms of Isio Group Limited's services contract. It should not be relied upon by any other person. Any person who chooses to rely on this report does so at their own risk. To the fullest extent permitted by law, Isio Group Limited accepts no responsibility or liability to that party in connection with the Services.

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