



# TCFD report

31 March 2024

# AA Pension Scheme

Report prepared in line with the recommendations of the Taskforce on Climate-related Financial Disclosures

31 March 2024

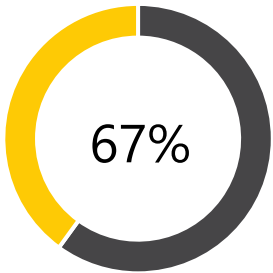


# Chairman's foreword

Climate change is affecting the planet, causing extreme weather events, impacting crop production and threatening Earth's ecosystems. Understanding the impact of climate change and the Scheme's vulnerability to climate risks will help us to mitigate the risks and take advantage of any opportunities.

As Chairman of A.A. Pensions Trustees Limited I am pleased to introduce our second annual TCFD report, detailing our management of climate-related risks and opportunities. We are pleased to report the following progress:

## Data quality



**7% increase** on last year. This is in line with our target to increase data quality to 75% by 2026

## Carbon emissions

**180,008<sup>1</sup> tonnes**



**6% decrease** compared with last year (measured on scope 1&2 emissions). This is equivalent to reduce 47,700\* hours of flying.

\*For illustrative purposes only, based on studies conducted by various bodies over the last decade in the UK.

<sup>1</sup> Covers all assets invested with fund managers, including the cashflow matching/LDI portfolio but excludes two buy-in policies with Canada Life and Just. Please see page 27 and 28 for more details.

## Progress

Over the year to 31 March 2024 we have:



Undertaken further training on sustainability issues, in particular methods of integration and stewardship.



Set climate change as a stewardship priority.



Appointed Van Lanschot Kempen ("VLK") to manage a liquid growth portfolio, partly reflecting their 'ahead of the curve' ESG investing approach.

## Next steps

Over the next year, we intend to challenge appointed asset managers further on their approach to managing climate-related risks and identifying climate-related opportunities. The expected outcome of this exercise is a greater understanding of the risk and opportunity management being undertaken on our behalf. In addition, we will use the exercise to challenge, where appropriate, insufficient action which should ultimately drive positive change. We will report back on our progress in next year's report.

We hope you enjoy reading this report and understanding more about how we are managing climate risks and opportunities within the Scheme.

### Mr S Delo

Chairman of A.A. Pensions Trustees Limited On behalf of the Trustee of the AA Pension Scheme

# Executive summary

## Scheme overview

The Scheme is a Defined Benefit (DB) Pension Scheme that closed to future accrual in 2020.

As at 31 March 2024, the Scheme assets totalled in excess of £1.1bn. Investments are held both for risk mitigation purposes and to enhance growth. The asset allocation as at 31 March 2024 is as follows:

Asset	Allocation as at 31 Mar 2024	Allocation as at 31 Mar 2023	Scope to manage climate related risks	What the Trustee can do to manage climate-related risks
Liquid Growth	14.9%	0.0%	High	<ul style="list-style-type: none"><li>• We intend to increase the exposure to this mandate through redemptions from private asset holdings.</li><li>• We appointed VLK to manage this mandate. We recognise their sustainability credentials.</li><li>• We intend to explore climate related opportunities with VLK.</li></ul>
ABS	5.4%	0.0%	Limited	<ul style="list-style-type: none"><li>• We appointed Insight to manage the ABS allocation and are pleased with their sustainability credentials.</li><li>• Historically, data collation on emissions from ABS has been challenging. However, Insight evidenced that they contributed to the improvements in this area through industry collaboration and engagement.</li></ul>
LDI	34.2%	38.6%	Limited	<ul style="list-style-type: none"><li>• The LDI assets that the Scheme invests in contain government bonds and financial derivatives traded with banks. LDI funds have limited ability to manage climate risks in the investment process in a financially material way.</li></ul>







			Limited	<ul style="list-style-type: none"><li>We appointed Insight to manage their LDI mandate. Insight will consider the use of green gilts where appropriate. We also note that Insight are making progress to improve emissions reporting on derivatives.</li></ul>
AIL Delegated Mandate	0.7%	13.3%		
Private assets	Property			
	14.3%	17.3%		
	Real Estate Debt			
	2.1%	3.2%		
	Illiquid Credit			
	16.4%	16.7%		
	Private Equity			
	10.9%	9.1%		
	Infrastructure			
1.1%	1.9%			

The Scheme also has two buy-in policies with Canada Life and Just. Reporting on emissions from the buy-in policies is not currently available at the Scheme level and has therefore been excluded from the reporting.

# Reporting overview

The Taskforce on Climate-related Financial Disclosures (“TCFD”) has introduced disclosures that enable organisations to consider their risk exposure to climate change. Such disclosures are now reflected in legislation applying to UK pension schemes.

This statement describes the approach taken by the AA Pension Scheme (‘the Scheme’). It has been prepared by A.A. Pensions Trustees Limited (‘the Trustee’, ‘we’) for the year ending 31 March 2024. The statement is intended to be consistent with both the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021, using the Department for Work and Pension’s (“DWP’s”) statutory guidance, and the format of reporting proposed by the TCFD. It covers the Scheme’s arrangements in respect of the following four areas:

<b>Governance</b>		The Scheme’s governance arrangements around climate-related risks and opportunities.
<b>Strategy</b>		The potential impact of climate-related risks and opportunities on the Scheme’s strategy and financial planning.
<b>Risk management</b>		The processes used by the Scheme to identify, assess and manage climate-related risks.
<b>Metrics and targets</b>		The metrics and targets used to assess and manage relevant climate-related risks and opportunities.

This is the second year that we, the Trustee of the AA Pension Scheme, have reported on their management of climate-related risks and opportunities.

This TCFD-aligned report was produced with support from Barnett Waddingham (the Scheme’s Investment Consultant). The report considers the potential impact climate change could have on the Scheme. The report details how the Trustee (“we”) identify, manage, and mitigate those risks.

Reporting is divided into the four key pillars: governance, strategy, risk management, and metrics and targets. These are the core areas of business practice and disclosure the TCFD recommends should be reported on. In completing this exercise, we have ensured that climate matters are adequately embedded in our governance, strategy, and risk management processes, and are transparently reported.

# Governance



# Governance

## Role of the Trustee

We are collectively responsible for oversight of all strategic matters related to the Scheme. This includes approval of the governance and management framework relating to environmental, social and governance (“ESG”) considerations and climate risks and opportunities. Given its importance, we have not identified one individual to be specifically responsible for the Trustee’s response to climate risks and opportunities. Rather, we have collective responsibility for managing the Scheme’s exposure to climate risks and opportunities. We have discussed and agreed its climate beliefs and overarching approach to managing climate change risk. Details are set out in the Statement of Investment Principles (“SIP”).

### **Our climate beliefs and objectives**

- Our focus is on our fiduciary duty to act in the best financial interest of the Scheme and its beneficiaries, seeking the best return that is consistent with a prudent and appropriate level of risk. This includes the risk that environmental factors, including climate change, may negatively impact the value of the investments held if not understood and evaluated properly.
- We are concerned that the risks associated with climate change could have a materially detrimental impact on the Scheme’s investment returns – and its Sponsor covenant - within a relevant timeframe for the Scheme. Given this concern, appropriate time and resource is spent on the governance of climate-related risks and opportunities. We broadly define the relevant timeframe as the next c. 20 years – and, as such, the we seek to integrate assessments of climate change risk into its investment decisions. In assessing the Scheme’s climate change risk exposure, we consider these risks over the short (1-3 years), medium (4-10 years) and

long (11-20+ years) term. Climate opportunities are evaluated over the same time horizons.

- We want the Scheme’s investment portfolio to be resilient to the risks posed by the transition to a low carbon economy. As such, when assessing the impact of climate change on the Scheme’s investment strategy, we will seek to identify investment opportunities that have the potential to be resilient to climate change risks or that by embracing innovative technologies seize the chance to make long term gains arising from being leaders in the low carbon economy. This may include investments in low-carbon/ESG-tilted investments if these investment opportunities fit within the wider strategic objectives of the Scheme.
- We believe that we should practically prepare for the risks associated with climate change. We will seek to understand the implications of actively engaging on climate change issues, which may include membership of industry groups and networks of like-minded investors. Where feasible and appropriate, we will work with the sponsoring employer to address these issues collectively.

On an annual basis we assess the competency of our appointed investment consultant with reference to the investment consultant objectives set. This includes consideration of the investment consultant’s competency in advising on climate related investment matters. We challenge information received by the investment consultant and other advisors in relation to climate risks and opportunities to ensure that such advice is relevant to the Scheme.

## Role of the Investment Committee

The investment Committee (“IC”), which is a sub-committee of the Trustee, seeks to ensure that any investment decisions appropriately consider climate risks and opportunities within the context of the Scheme’s wider risk and return



requirements and are consistent with the climate change policy as set out in the SIP. The IC keeps the Trustee apprised of any material climate-related developments through regular (typically at least annual) updates.

The IC receives training – likely to be at least on an annual basis but more frequently if required – on climate issues to ensure that it has the appropriate degree of knowledge and understanding on these issues to support good decision-making. The IC expects the advisors to bring important and relevant climate-related issues and developments to our attention in a timely manner. During the year to 31 March 2024, the IC received training from the appointed investment advisor, Barnett Waddingham. Training covered horizon scanning of sustainability issues for pension schemes, TCFD gap analysis and stewardship priorities.

Key activities delegated to the IC include:

- considering investment opportunities that enhance the ESG and climate change focus of the Scheme's investment portfolio.
- ensuring investment proposals address the impact of climate risks and opportunities.
- engaging with the Scheme's fiduciary manager(s) and underlying investment managers to understand how climate risks are considered in their investment approach.
- working with the Scheme's fiduciary manager(s) and underlying investment managers to disclose relevant climate metrics as set out in the TCFD recommendations.
- ensuring that stewardship activities are being undertaken appropriately on the Scheme's behalf.

## Role of the advisors



Investment Managers: the Scheme's fund managers, will help us understand how they consider climate change risk in their investment approach. The Scheme's fund managers are also responsible for the implementation of climate-related opportunities, where appropriate.



Scheme Actuary: the Scheme Actuary, Shahbaz Hamid (Aon), will help us assess the potential impact of climate change risk on the Scheme's funding assumptions



Covenant advisor: the Trustee's covenant advisor, RSM Restructuring Advisory LLP ("RSM"), will help us understand the potential impact of climate change risk on the Sponsor covenant.



Investment consultant: We appointed Barnett Waddingham in 2023 to act as Investment Consultant. Barnett Waddingham provide strategic and practical support to the IC and Trustee in respect of the management of climate risks and opportunities, ensuring compliance with the recommendations set out by the TCFD. This included the provision of regular training and updates on climate-related issues.

In the first reporting year, Aon acted as Investment Consultant and provided climate change scenario modelling that enabled the IC and Trustee to assess the Scheme's exposure to climate risks. The modelling has not been updated for this second year of reporting.

# Strategy





# Strategy

## Assessing climate-related risks and opportunities over the short, medium and long term



Assessing the climate risks and opportunities the Scheme is exposed to is key to understanding the impact climate change could have on the Scheme in the future.

We carried out a qualitative risk assessment of each asset class the Scheme is invested in. From this we have identified which climate risks and opportunities could have a material impact on the Scheme.

The Scheme’s investment portfolio is diversified across a range of different asset classes including equities, fixed income, property, illiquid assets, gilts and private equity. Given the number of strategies used in the Scheme’s portfolio, we have completed this exercise by focusing on the most material holdings. This year, we engaged with our Investment Consultant, Barnett Waddingham, to understand how each asset class is impacted by climate risk, as well as the potential for opportunities to be created by the climate transition. The narrative below captures the largest holdings in the portfolio that are most exposed to climate risk. We believe this to be a proportionate approach, focusing on those asset classes that could experience the most material impact as a result of climate change.

## Risk categories

In the analysis, the climate risks have been categorised into physical and transition risks as follows:

<b>Transition risks:</b> 	Risks associated with the transition to a low-carbon economy. For example, shifts in policy, technology or supply and demand in certain sectors. The main risk is assumed to be the potential cost of enforcing carbon taxes and policies. Other risks include those associated with policy, regulation, legislation, technology, markets and reputation.
<b>Physical risks:</b> 	Risks associated with an increased global temperature. These include acute physical risks (such as heatwaves and floods) and chronic physical risks (such as rising sea levels and more volatile weather events).

## Ratings

As part of the analysis, each asset class has been assigned a climate risk indicator (CRI) score from 0 to 9, as per the below scale. The CRI score considers an asset class’s return impact (measured using the below scale) by considering the potential performance of an asset class under Barnett Waddingham’s ‘late and inadequate action’ climate scenario over the period to 2050\*, compared to an ‘early action’ scenario. At this time we have considered each asset class in its broadest sense. Going forward, we will work with Barnett Waddingham to consider the CRI scores relevant for the specific mandates adopted. This will be reflected in our future scenario analysis work.



\*Analysis of expected potential loss from the impacts of climate change (physical and transition) over a 30-year period. This uses output from the Bank of England's Network for Greening the Financial System (NGFS) scenarios.

Scenario	Brief description	Assumed temperature rise <sup>1</sup>	Assumed level of transition risks	Assumed level of physical risks
Early action	Transition to net-zero begins in year 1. Carbon pricing/policy intensifies over time.	1.60c	Medium	Limited
Late action	Policy implementation is more sudden and disorderly due to delay, resulting in disruption.	1.60c	High	Limited
No additional action <sup>2</sup>	No new climate policies are introduced, resulting in a growing concentration of greenhouse gas emissions and a larger increase in global temperatures.	4.10c	Limited	High
Late and inadequate action <sup>2</sup>	Accumulates the impacts of a 'late action' and a 'no additional action' scenario, considering what may happen if implementation is more sudden and disorderly, due to delay, and a larger increase in global temperatures still occurs.	4.10c	High	High

## Time horizons

The Trustee have considered the following short, medium and long-term drivers of risk:

1-3 Years


### Short term

- Momentum-driven changes in markets as investor awareness changes, e.g. because of concerns about specific stocks that might be vulnerable to the transition to a lower carbon economy.
- Market pricing changes caused by the likelihood of different climate scenarios emerging, e.g. if a higher warming scenario becomes more likely because of a failure of governments to agree on necessary action to limit warming to 1.5°C-2.0°C. Furthermore, significant improvements in climate science, climate data and climate risk modelling are expected over this period.

For the analysis below, this represents the period 'pre late action' within the late action scenarios (i.e. before we may expect market shocks, driven by transition risk due to the abrupt action being taken by policy makers, to occur). We would expect some degree of physical risks within the 'no additional action' and 'late and inadequate action' scenarios over the short term. This is due to the modelling assuming that market impacts from physical risks are present and being priced in from day one.



## 4-10 Years




### Medium term

- Risks associated with the transition to a low-carbon economy are likely to become increasingly important over the medium term.
- Such risks/opportunities include the development of new technologies, obsolescence of existing industries, and development of policy and regulation.
- Unexpected regulatory changes that cause rapid price movements, e.g. the introduction of high rates of carbon taxation.

For the analysis below, this represents the period where late action occurs (i.e. a period where we see market shocks, driven by transition risk due to abrupt action being taken by policy makers). We would expect an increasing level of physical risks within the 'no additional action' and 'late and inadequate action' scenarios.

## 11-20+ Years

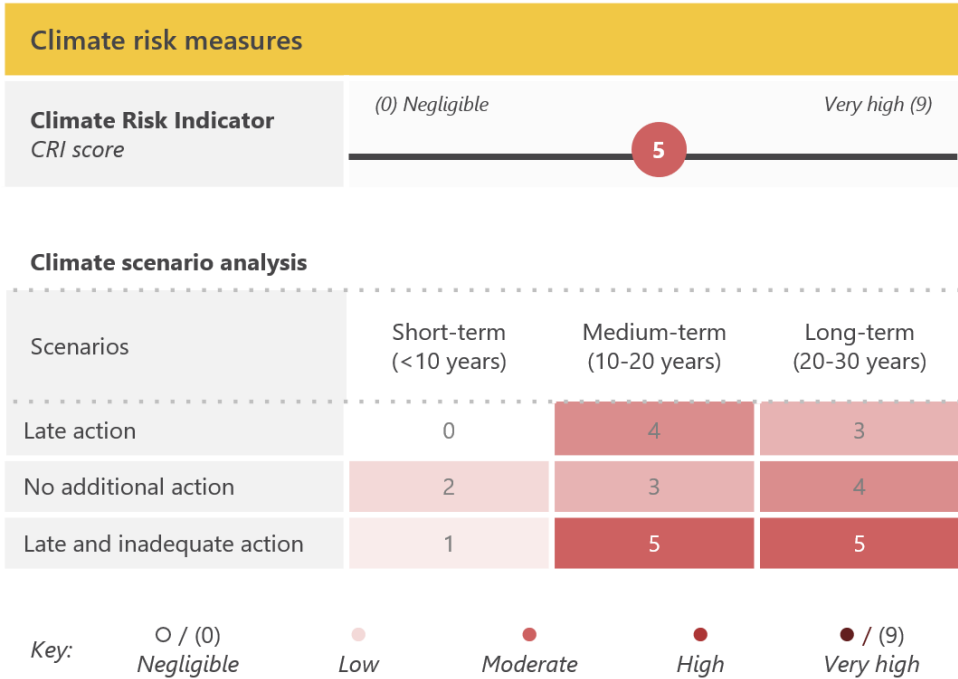


### Long term

- Over the longer term the practical impact of climate change will come to the fore.
- These would include the potential physical impact of climate change, such as flooding, desertification, changes in weather patterns, changes in migration patterns, and conflict over natural resources.
- This will also include a whole economy transition to low carbon, and eventually net-zero.

For the analysis below, this represents the period 'post late action' (i.e. the initial market shock has occurred and both transition and/or physical risk). We would expect heightened physical risks within the 'no additional action' and 'late and inadequate action' scenarios.

Diversified liquid growth, circa 15% of the portfolio



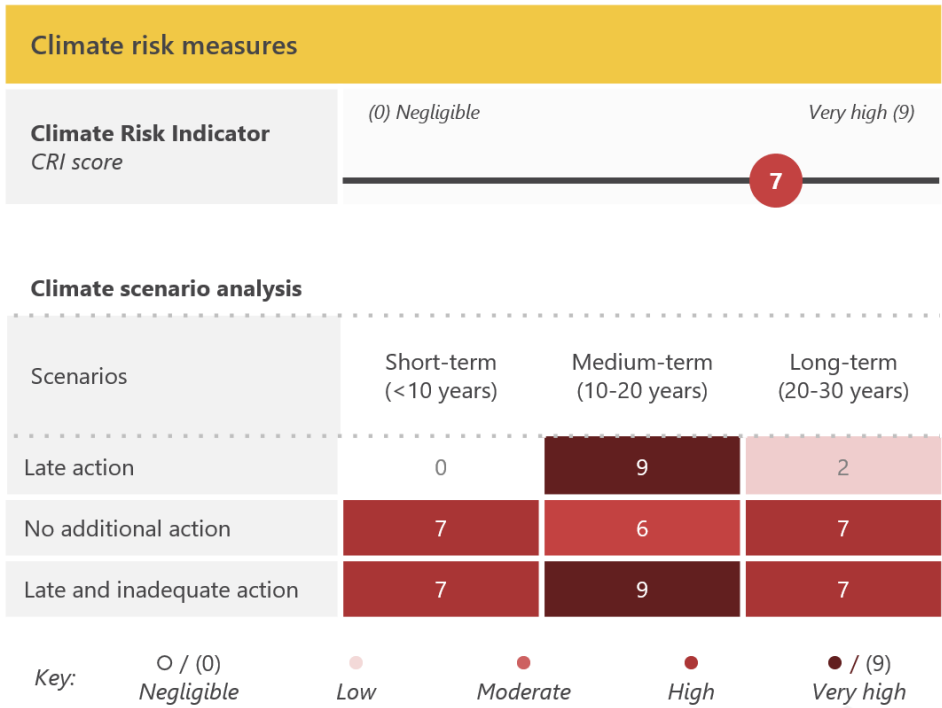
**Potential transition risks:** This asset class has material exposure to both return-seeking and protection assets and is therefore expected to be exposed to a degree of transition risk. For example, equity is highly exposed to transition risks, with higher emitting sectors having a higher exposure. The degree of exposure will depend on specific factors such as location, sector, supply chains and stakeholders. Debt and cash are generally less exposed to these risks, but are not immune. The degree of exposure will depend on factors such as the debt issuer and the debt’s duration. Transition risks may harm the debt issuer’s revenue, increase costs, increase inflation (eroding the debt’s real value) and increase the likelihood of default. Diversification across assets within the funds should result in the risks involved with climate change being spread across many different assets, whilst active management should allow the fund manager to mitigate risks.

**Potential physical risks:** Again, equity is highly exposed both directly (through potential asset damages, insurance costs, etc) and indirectly (through supply chains and disruption) to physical risks. The degree of exposure will depend on specific factors such as location, sector, supply chains, stakeholders. Debt and cash are generally less exposed to these risks, but are not immune. The degree of exposure will depend on factors such as the debt issuer (its credit rating and exposure to physical risks) and the debt duration. Physical risks may harm a firm’s (or a sovereign’s) revenue, increase costs and may increase the likelihood of default.

Diversification across assets within the funds should result in the risks involved with climate change being spread across many different assets, whilst active management should allow the fund manager to mitigate risks.

We note that the CRI score for this asset class is lower on the whole when compared with the other asset classes considered. This reflects the diversified nature of the holding, as well as the ability for active management to mitigate risks, which helps to diversify the risk exposures of the underlying asset classes.

Private equity, circa 11% of the portfolio



**Potential transition risks:** the level of transition risk within private equities will depend on the individual companies, sectors and locations. Given that investors have direct involvement in key decisions, an investor who is aiming to mitigate transition risks will be able to better influence the actions of a firm and may be less influenced or constrained by pressures and regulation, which are imposed on larger, public firms. Management of these firms are also more likely to take a longer-term view, allowing for transition risk planning over multi-year periods.

Private equity investments tend to have more concentrated portfolios and therefore, investors can select companies they believe are heading in the correct

direction with respect to transition risk. Given private firms may be at an earlier stage in their lifecycles (relative to public firms which tend to be large and mature), they may be nimbler and allows them to make changes before, for example, the business grows. However, they may also have less access to capital to transition or to support the firm in times of need. Furthermore, a lack of transparency and illiquidity may pose a risk to investors who wish to quantify their risks or liquidate an asset quickly to avoid specific risks (e.g. a sudden change in climate regulations).

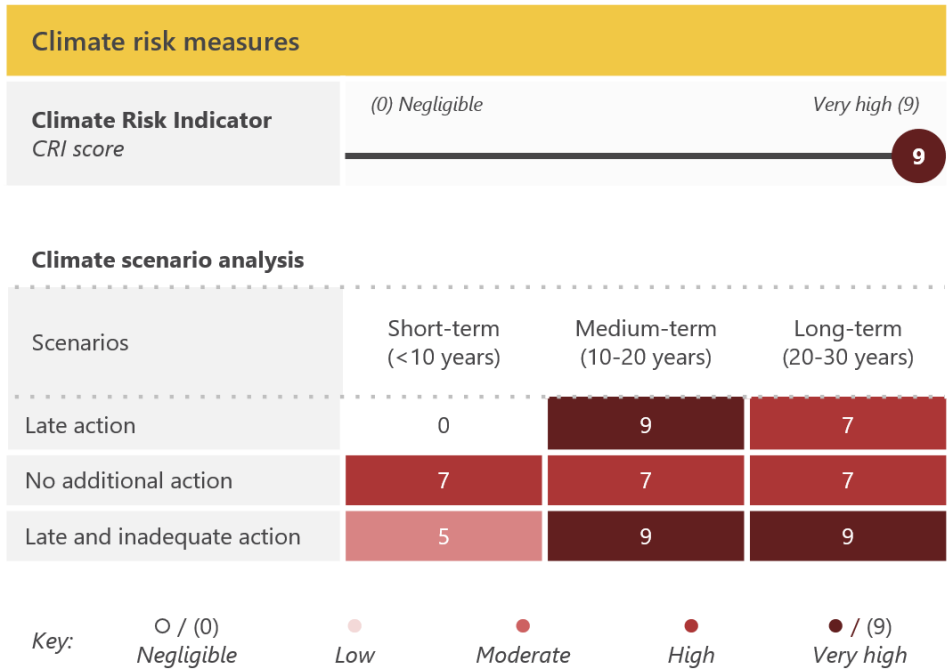
**Potential physical risks:** The specific exposure to physical risk will depend on the individual companies, sectors and locations. Larger investor influence and a longer-term view may allow for better physical risk planning though mitigation and adaption. Furthermore, investors can focus on companies they believe have the ability to best mitigate these risks and adapt. Private firms may also be nimbler and could mitigate or adapt before, for example, the business grows.

However, they may also have less access to capital to adapt and invest in protection. Furthermore, a lack of transparency and illiquidity may pose a risk to investors who wish to quantify their risks or liquidate an asset quickly to avoid specific risks (e.g. if physical risks are realised faster than expected).

We note the CRI score is high over the medium-term under the late action scenarios, reflecting the potential impacts of transition risk on this asset class. Over the longer term, we also note the high potential impacts of physical risks under the no additional action and the late and inadequate action scenario as minimal steps are taken to address climate risk. This results in a high CRI score.

Property, circa 14% of the portfolio

The Scheme has a high allocation to UK property within the portfolio and has therefore focused on this specific geography below:



**Potential transition risks:** It is estimated that real estate is responsible for c.40% of UK emissions. Therefore, it will be a key contributor to the UK’s journey to a low carbon economy. It is anticipated that over the coming years, regulation will be created that requires commercial buildings to have at least an EPC rating of ‘B’ by 2030 as well as increased disclosures. However, the current likelihood of enforcement within this timescale remains uncertain. This may result in large upgrade costs to property owners and may result in stranded assets (whereby the cost of upgrading the building is not feasible). It is anticipated that the office sector will be the first sector to be captured. Furthermore, as a high emitting

sector, the construction industry will also be required to cut emissions over time, potentially resulting in higher construction and maintenance costs. Transition risk may also stem from a property’s tenant who may demand a more energy efficient property (resulting in upgrade cost or a potential loss of a tenant) or be impacted themselves by transition risk (resulting in potential rental defaults or rent renegotiations).

**Potential physical risks:** As a physical asset, property has high exposure to physical climate risks. As a developed nation, the UK is in a better position to deal with physical climate risks and already has a level of defence in place. However, the UK is not immune to these risks as large areas of the UK, including major cities, are expected to be below sea level in a scenario where temperatures increase significantly. The level of risk will vary depending on the property’s location and type. For example, a property near the coast may be at more risk of flooding due to rising sea levels, whereas a property in the financial hub of London may be better protected by government spending on sea defences. This will likely impact the cost of insurance and result in higher costs from damages (e.g. storm or flood damage) and adaption (e.g. defences or air conditioning). Furthermore, a property’s tenants may be exposed to physical risks, and its disruptions, resulting in potential rental defaults or rent renegotiations.

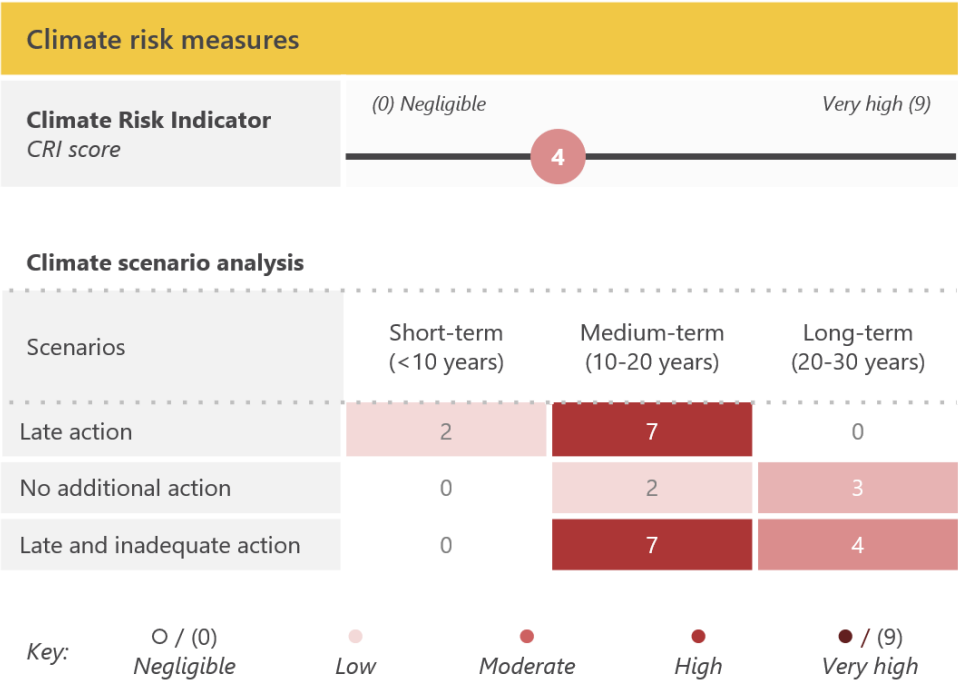
Similar to private equity, we note the high CRI scores at longer time horizons, reflecting the high potential exposure to physical risks. We also note the high CRI scores at medium time horizons under the late action scenarios, reflecting the significant transition the property sector will need to undertake.



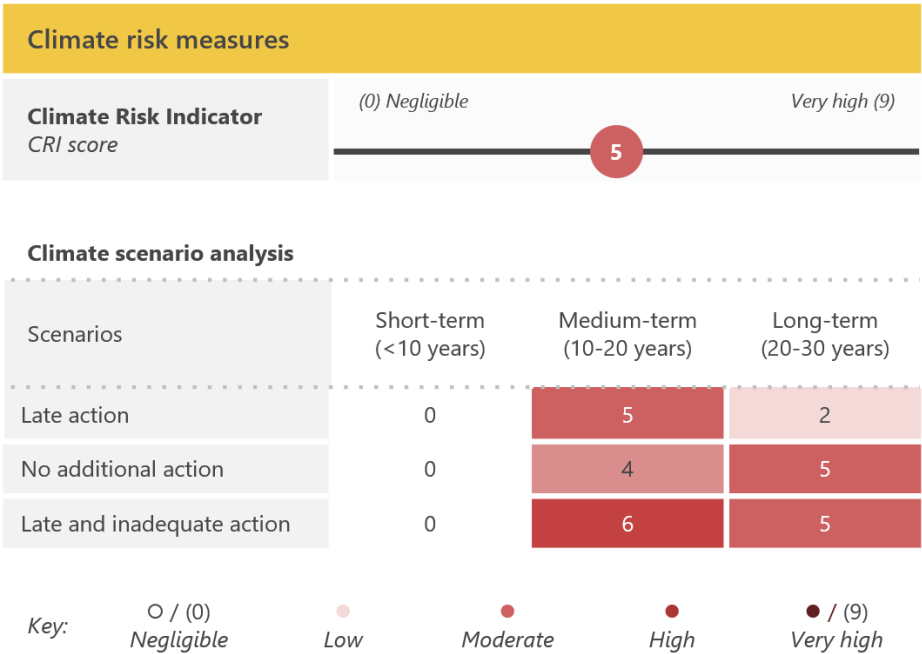
Illiquid credit, circa 16% of the portfolio

The Scheme’s illiquid credit portfolio contains various sub-asset classes. To represent this allocation, the analysis below considers global investment grade corporate bonds and private debt as a proxy.

Global investment grade corporate bonds



Private debt



**Potential transition risks:** The individual company’s characteristics will determine how transition risks will impact their company debt. Companies with carbon reducing commitments may be better placed to transition to a low carbon world, whilst those who operate in higher emitting countries or industries, or are exposed to higher emitting supply chains, may experience large impacts on profits, increasing the likelihood of default and stranded assets. Companies who operate in lower exposed sectors, or with higher credit ratings, may be better placed to withstand these risks, whilst loans with shorter durations may be less impacted depending on the timing and severity of policy change.

**Potential physical risks:** Physical risks will vary, depending on where a company’s operations are based and how dependent their revenue is on their at risk assets or

at risk supply chains. Not only may these physical risks harm a company's revenue, and consequently increase the likelihood of them defaulting on their debt, it may also result in companies having to issue more debt to rebuild or protect the infrastructure at risk, resulting in more indebted companies. Recovery rates may also be impacted, due to the risk of stranded assets. Companies who operate in lower risk regions and with higher credit ratings, may be better placed to withstand these risks, whilst loans with shorter durations may be less impacted due to the expected gradual intensifying of these risks.

Diversification across assets within the funds should result in the risks involved with climate change being spread across many different assets, whilst active management should allow the fund manager to mitigate risks.

## Climate – related opportunities

Last year we identified opportunities for the Scheme and its investments through dialogue with our investment managers. We have continued this dialogue to better understand climate-related opportunities explored by appointed investment managers within the existing mandates invested in. Considering the material asset classes referenced above and our medium-term strategy to gradually reduce private assets in favour of liquid growth, we note that:

- The diversified liquid growth portfolio managed by VLK has a material exposure to return-seeking assets, offering climate related investment opportunities to us. As at 31 March 2024, approximately 70% of this portfolio is allocated to equity, which includes investments in developing new technologies and processes, such as renewable energy and carbon capture. The allocation to this portfolio therefore provides access to these opportunities. Furthermore, we expect to increase allocation to this portfolio over the next five years.
- Opportunities in ABS are somewhat limited as the securities are heavily dependent on the underlying loans. However, the industry has seen the introduction of green mortgage-backed securities which allows borrowers

to borrow funds for 'green' products, such as electric vehicles. Although this transition is down to the underlying assets, it does allow investors to gain exposure to assets which will contribute less to climate risk. There may also be scope for lenders to perform checks on the borrowers (especially in commercial loans) to assess their climate risk, allowing green factors to be applied to both sides of the loans. Furthermore, the majority of ABSs are floating rate, which may provide some level of protection against inflation uncertainty.

## Portfolio resilience and scenario analysis

We previously undertook climate change scenario analysis (as at 31 March 2022) to better understand the impact climate change could have on the Scheme's assets and liabilities. Having reviewed the previous analysis and considered the Scheme's position, we decided not to undertake new scenario analysis for this year's report. Specifically, there have been no material changes to the investment approach used since the previous analysis was undertaken, with any changes towards a lower risk approach (including lower expected climate risk exposure). Therefore, we have taken the view that the analysis previously undertaken remains suitable for the purposes of this year's report.

The analysis looked at five climate change scenarios. Each scenario considers what might happen when transitioning to a low carbon economy under different conditions. We had chosen these scenarios because it believed that they provided a reasonable range of possible climate change outcomes. These scenarios were developed by Aon, the previous investment advisor appointed, and were based on detailed assumptions. They are only illustrative and are subject to considerable uncertainty. Aon established a "base case" scenario against which the five climate change scenarios are compared.

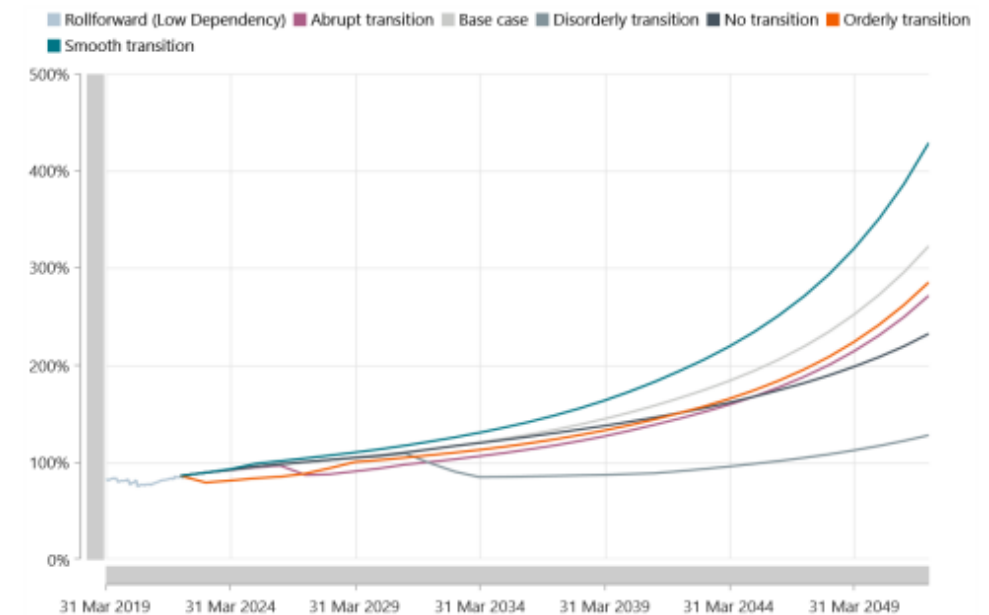
allocation with a de-risking flight plan. The analysis was carried out on total uninsured assets, excluding buy in assets.

#### a. Impact on funding level assuming no de-risking

The Scheme's investment portfolio exhibits reasonable resilience under all the climate scenarios. This is due to the diversification of assets and high levels of hedging against changes in interest rates and inflation.

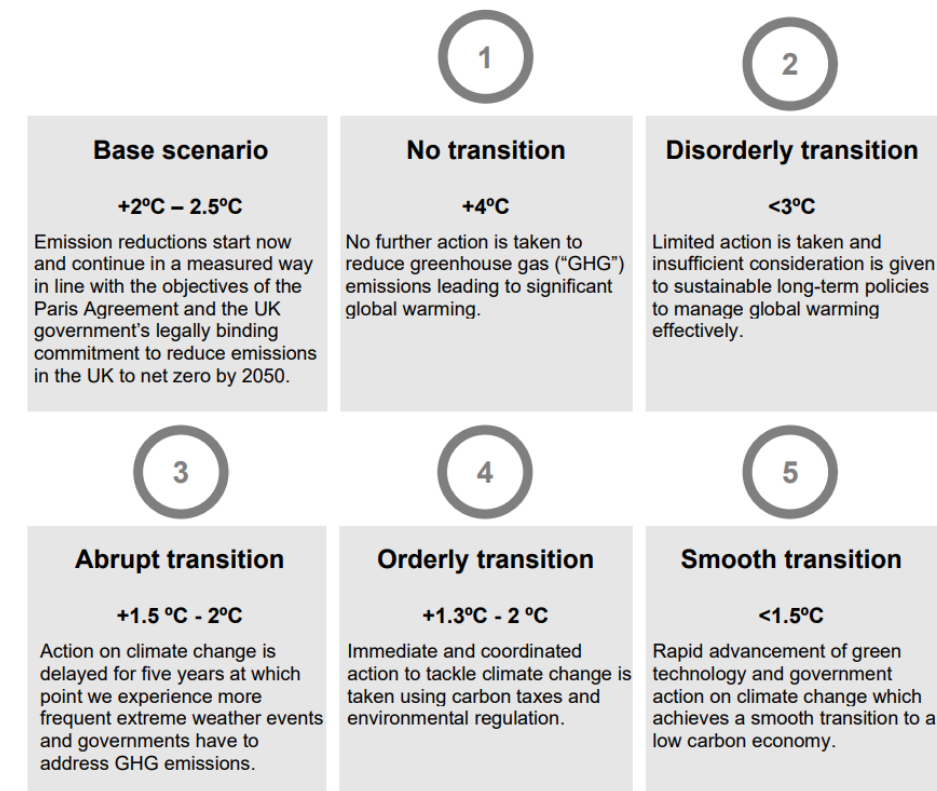
The worst-case scenario for the Scheme was the Disorderly Transition. Although initially the funding level improves in line with the base case, after 10 years the funding level deteriorates sharply and only recovers to 100% funded around 25 years into the modelling period. This leaves the Scheme materially worse off in terms of surplus relative to the base case.

#### Funding level projections under each climate scenario\*



Source: Aon. Scenario projections as at 31 March 2022.

Assuming the current asset portfolio. No allowance has been made for de-risking in the projections.



Source: Aon

We are aware that climate scenario analysis remains in its infancy and may potentially underestimate the impacts of climate change. For this reason, we are committed to considering both qualitative and quantitative assessments of climate risk to ensure we can assess risks appropriately and manage them accordingly.

## Impact assessment

We carried out the analysis to assess the effect of climate risks under two options:

a) assuming current asset portfolio with no derisking; and b) assuming portfolio

The chart shows what might happen to the Scheme's funding level under each climate scenario up to 30 years into the future. Each line represents a different scenario. The funding level is a measure of how much surplus assets (or deficit) the Scheme has above the cost of the pension liabilities. Depending on the scenario, the funding level increases more or less. Under some scenarios the funding level experiences sudden falls.

b. Impact on funding level with de-risking flight plan

The alternative modelling allowing for the Scheme's de-risking flight plan also exhibits reasonable resilience under all the climate scenarios considered. As this portfolio has a lower allocation to risk assets, the fall in funding level experienced under the Disorderly Transition scenario is expected to be less than in the modelling where no allowance is made for the de-risking flight plan. As the outcomes are similar, we are comfortable that the narrative above remains appropriate.

## Covenant considerations

Under the Abrupt and Orderly Transition scenarios, the Scheme may experience large falls in the funding level of around 7-10% before recovering.

Deterioration of the funding level will place a strain on the Sponsor covenant as the Sponsor may have to make up a bigger shortfall through deficit contributions. It may also require the Scheme to re-risk in order to stay on track to achieve the funding target or extend the timeframe for achieving this.

We therefore recognise that climate change may have an impact on the Employer covenant. We monitor the covenant on a regular basis, with the support of its covenant advisor, and maintains a regular dialogue with the Employer. Over the year to 31 March 2024, we considered the Sponsor's Environmental, Social and Governance report issues 2023, noting the ambition of the Sponsor to embed sustainable thinking throughout the business.



# Risk Management



# Risk management

## Processes for identifying and assessing climate-related risks

We have established a process to identify, assess and manage the climate risks that are relevant to the Scheme. This is part of the Scheme's wider risk management framework and sets out how we monitor the most significant risks to the Scheme in its efforts to achieve appropriate outcomes for members. We review the framework as frequently as appropriate according to market conditions and the Scheme's funding position.

### 1. Qualitative assessment

The first element is a qualitative assessment which is prepared by the our investment consultant and reviewed by us.

### 2. Quantitative assessment

The second element is quantitative in nature and is delivered by means of climate change scenario analysis, which is provided by our investment consultant and reviewed by the us.

Together these elements give us a clear picture of the climate risks that the Scheme is exposed to. Where appropriate, we distinguish between transition and physical risks. All risks and opportunities are assessed with reference to the time horizons that we have identified as relevant to the Scheme.

When prioritising the management of risks, we assess the materiality of climate risks relative to the impact and likelihood of other risks to the Scheme. This helps us focus on the risks that pose the most significant impact.

## Processes for managing climate-related risks

The processes for managing climate risks and opportunities are summarised in the tables below. The Trustee has delegated a number of key tasks but retains the ultimate responsibility.

### Governance

Activity	Action	Owner	Input	Frequency of review
Policy	Review of the Statement of Investment Principles, including Environmental Social and Governance (ESG) policy and approach to stewardship	Trustee	IC/Investment Advisor	At least every three years
Training	Receive training on climate-related issues	Trustee	Advisors	Annual
Advisors	Review advisor objectives to ensure advisors have appropriate climate capability, and bring important, relevant and timely climate-related issues to the Trustee's attention	Trustee	Advisors	Annual
Investment Strategy	Ensure investment proposals explicitly consider the impact of climate risks and opportunities and seek investment opportunities.	IC	Investment advisor	Ongoing
Actuarial and Covenant	Ensure that actuarial and covenant advice adequately incorporates climate-related risk factors where they are relevant and material	Trustee	Scheme Actuary, Covenant advisor	Triennial
Managers	Engage with the investment managers to understand how climate risks are considered in their investment approach, and stewardship activities are being undertaken appropriately.	IC	Fund managers, Investment advisor	Annual

Over the year to 31 March 2024, we have received training on horizon scanning of sustainability issues for pension schemes, TCFD gap analysis and stewardship priorities. The Investment Consultant was reviewed against pre-agreed objectives,

which also consider climate capabilities. Managers have presented on their approach to integrating sustainability meetings at IC meetings. We intend to

question managers further on their approach to integrating climate change in investment decision-making and will report back on their findings next year.

Strategy

Activity	Action	Owner	Input	Frequency of review
Climate Scenarios	Undertake quantitative scenario analysis to understand the impact of climate risks	IC	Investment Advisor	First year, Triennial thereafter*
Risks and opportunities	Identify the climate risks and opportunities for investment & funding strategy and assess their likelihood and impact.	IC	Advisors	Annual

\*Unless there are significant changes that warrant updated analysis.

During the year to 31 March 2024, we reviewed their approach to climate scenario analysis and determined that an update is not required at this time given there have not been material changes to the Scheme. We had continued dialogue with the appointed investment advisor and covenant advisor on climate risks impacting on investment and funding strategy.

Risk Management

Activity	Action	Owner	Input	Frequency of review
Risk prioritisation	Consider the prioritisation of those climate risks, and the management of the most significant in terms of potential loss and likelihood.	IC	Advisors	Annual
Scheme documentation	Include consideration of climate risks in the Scheme's other risk processes and documents, such as the risk register and the SIP, and regularly review these.	IC	Advisors	One-off, ongoing thereafter
Covenant	Seek to understand the climate risks to the employer over the short, medium and long term	Trustee	Covenant Advisors	Annual

Over the year, we have set climate change as a stewardship priority. Going forward we will monitor the manager's stewardship on climate-related issues. Reporting will be included in the Implementation Statement.



Metrics and Targets

Activity	Action	Owner	Input	Frequency of review
Metrics	Obtain data for metrics	IC	Investment advisor, fund managers	Annual
Targets	Review continued appropriateness of metrics	IC	Investment advisor	Annual

We collected metrics data for the Scheme’s assets in order to understand the current state of the portfolio regarding its emissions, data quality and portfolio alignment metric. This data is evaluated in order to produce a metrics related target, whereby in this instance we have opted for the Data Quality, and in particular, improving the coverage of data. Metrics collection has been carried out in line with industry practice and supported by the IC and its advisors. More details can be found in the Metrics and Targets section.



# Metrics and targets





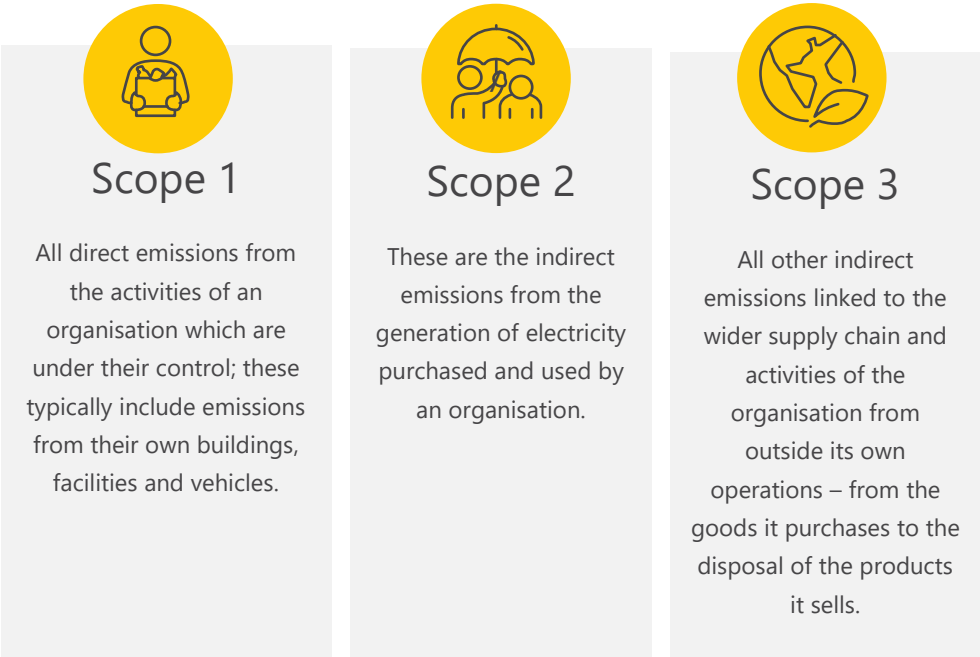
# Metrics and targets

## Metrics

We use some quantitative measures to help it understand and monitor the Scheme’s exposure to climate risks.

Measuring greenhouse gas (GHG) emissions is one way for pension schemes to assess their exposure to climate change. Greenhouse gases are predominantly produced by burning fossil fuels, meat and dairy farming, and some industrial processes. When greenhouse gases are released into the atmosphere, they trap heat in the atmosphere causing global warming and contributing to climate change.

Greenhouse gases are categorised into three types of ‘scopes’ by the Greenhouse Gas Protocol, the world’s most used greenhouse gas accounting standard:



This year we attempted to collate data on all three scopes, having only reported on scope 1 & 2 GHG emissions last year in line with regulations. Scope 3 emissions are, however, difficult to measure. The complexity and global nature of an organisation’s value chain make it hard to collect accurate scope 3 data. The Trustee, via its advisor, has collated data to the best of its ability but is conscious of data gaps and estimations and has therefore reported scope 3 emissions data separately below.

## Our climate metrics

On the Trustee's behalf, Barnett Waddingham collected information from the Scheme's managers on their greenhouse gas emissions. Barnett Waddingham collated this information to calculate the following climate metrics for the Scheme's investable asset portfolio. The metrics do not include emissions associated with the Scheme's annuity policy as the annuity providers were unable to provide this information at the time of writing.

The tables below show a more detailed breakdown of the metrics from each asset class in the Scheme's investable assets (where available):

Asset class	Asset allocation	GHG emissions (Scope 1&2 tCO2e)	GHG emissions (Scope 3 tCO2e)	Carbon intensity (Scope 1&2 tCO2e/£m)	Carbon intensity (Scope 3 tCO2e/£m)	Data quality (scope 1&2)	Data quality (scope 3)	Binary target measurement
AIL Delegated Mandate	1%	503	Unavailable	70	Unavailable	39%	Unavailable	Unavailable
Illiquids	37%	14,666	14,892	38	37	51%	40%	5%
Core Property	8%	985	404	12	5	67%	33%	Unavailable
Cashflow matching*	34%	155,734	Unavailable	167	Unavailable	100%	Unavailable	Unavailable
Kempen Delegated Mandate (VLK Liquid Growth)	15%	7,851	45,124	48	274	50%	50%	17%
ABS	5%	269	Unavailable	4	Unavailable	24%	Unavailable	Unavailable
Bulk Annuity**				Unavailable				

Source: Investment managers. Data as at 31 March 2024 unless specified otherwise. Please note that carbon intensity relating to the illiquids and ABS portfolio were restated post year end due to a calculation change.

\* The calculation of emissions on gilts differs to the calculation of emissions on other asset classes. As a result, scope 3 emissions are not available for the LDI portfolio, which consists of gilts and gilt based derivatives. The calculation of emissions on gilts differs to the calculation of emissions on other asset classes. As a result, scope 3 emissions are not available for the cashflow matching portfolio, which consists of gilts and gilt based derivatives. Insight's assumption on the cashflow matching portfolio is 1.5 °C – 2.0 °C based on analysis by Germanwatch and the Climate Action Tracker (noting this is under review). This was excluded in the binary target measurement

calculation for across the asset portfolio because it was not expressed as a percentage i.e. x% of the portfolio is aligned with a climate change goal of limiting the increase in the global average temperature to 1.5°C.

\*\*Bulk annuity made c.29% of the total Scheme's AUM as at 31 March 2024.

- a. Data for the AIL Delegated Mandate was provided as at 31 December 2023.
- b. Six managers within the illiquids portfolio provided data as at 31 December 2023 and one manager provided data as at 30 September 2023. M&G provided Scope 1 and 2 carbon intensity data for the Debt Investment Opportunities Fund which makes of 1.8% of the total assets as at 31 March 2024 (excluding bulk annuities). The emissions data was estimated by the manager using a proprietary tool "Carbonator". The manager acknowledged that the estimation tool tends to distort carbon intensity results since come underlying investments do not generate revenue until they are completed, and commented that work is underway to address this limitation. As such, Barnett Waddingham has calculated the scope 1&2 carbon intensity for this Fund using the total scope 1&2 emission M&G provided. Please find more details on the calculation method in the table below. We expect M&G to make improvements on the emission estimate tool in the future.
- c. The only manager within the core property portfolio provided data as at 31 December 2023.

Some emissions data is missing as not all the Scheme's managers were able to provide data. Also, we showed the scope 1 and 2 emissions data and scope 3 emission data separately, to enable recipients of this report to be able to compare the emissions metrics against last year's report.

It is expected that the Scheme's reported emissions will increase in the future, as more managers become able to provide emissions data, and as scope 3 data becomes more widely available

The cashflow matching portfolio managed by Insight contributes the most to the Scheme's total emissions as well as being the second largest proportion of the Scheme's assets. Insight's emissions are primarily driven by the Scheme's investments in gilts and gilts exposure obtained via repos and total return swaps. Insight relied on the Scope 1 and 2 GHG provisional emissions published by the UK government for 2023 (i.e., 384.2M tCO<sub>2</sub>e), and the total combined gilts exposure (i.e., £930M as at 31 March 2024).

We have been able to obtain reasonable quality data for c. 67% of its total assets on scope 1 and 2 emissions and 42% of its total assets on scope 3 emissions

(excluding bulk annuity). The data obtained was either available for the underlying securities or reasonably estimated by the investment managers.

#### Notes on the metrics data

Barnett Waddingham requested data from all the Scheme's managers except for Janus Henderson who were excluded given the small size of the investment.

18 of the 25 managers (excluding annuity providers) requested were able to provide emissions data. BlackRock (Q-BLK Private Capital III), Keyheaven, BV Partners, Clearbell (Property Partners II), Blackstone, CVC, DRC and Invesco were unable to provide data at the time of writing time. The Scheme's allocation to these funds was 8.2% as at 31 March 2024 (excluding bulk annuities).

Both annuity providers, Canada Life and Just Group, were also unable to provide data relating to the buy-ins undertaken by the Trustee. Barnett Waddingham did not make any estimates for the missing data.

We expect that in the future better information will be available from managers and this improvement will be reflected in the coming years' reporting.



### Notes on the metrics calculations

We note that there is not yet an agreed industry-wide standard for calculating some of the metrics and hence different managers may use different methods and assumptions when providing data to us.

These issues are common across the industry at the current time and highlight the importance of TCFD-aligned reporting to improve transparency. We expect that in the future more consistent information will be available from managers as the industry aligns to expectations and best practice standards.

### The carbon metrics

Barnett Waddingham calculated the carbon metrics for the Scheme based on the information provided by the managers. The table below shows for each asset class the broad approach used for calculating each metric.

Asset Class	Approach
Cashflow Matching	<p>The manager provided the carbon intensity as defined above. The manager also provided the absolute scope 1 and 2 carbon emissions in the cashflow matching portfolio, covering:</p> <ul style="list-style-type: none"><li>• Funded gilts only</li><li>• Gilts on repo and/or total return swaps</li><li>• Combined gilt exposure</li></ul> <p>Barnett Waddingham used the combined gilt exposure for the total scope 1 and 2 GHG emission.</p>
Core Property	<p>The manager (BlackRock) provided the carbon intensity as defined above.</p> <p>Barnett Waddingham calculated the Scheme’s share of the fund’s total emissions by applying the carbon intensity to the Trustee’s share of invested capital in the pooled fund.</p> <p><i>(i.e. carbon intensity x £m Scheme assets invested in the fund)</i></p>
Illiquids	<p>Where total fund emissions were provided, Barnett Waddingham calculated the carbon intensity for the fund:</p> $\text{Fund carbon footprint} = \frac{\text{fund emissions}}{\text{fund's assets under management (£m)}}$ <p>Then Barnett Waddingham calculated the Scheme’s share of the fund’s total emissions by applying the carbon intensity to the Trustee’s share of invested capital in the pooled fund.</p> <p><i>(i.e. carbon intensity x £m Scheme assets invested in the fund)</i></p>

Kempen Delegated Mandate (VLK Liquid Growth)	The manager provided carbon intensity (as defined above) and the total emissions for its portfolio.
AIL Delegated Mandate	The manager provided the carbon intensity as defined above.
ABS	Barnett Waddingham calculated the Scheme's share of the fund's total emissions by applying the carbon intensity to the Trustee's share of invested capital in the pooled fund.  (i.e. <i>carbon intensity x £m Scheme assets invested in the fund</i> )

## Binary target measurement

Barnett Waddingham calculated the binary target measurement for the Scheme based on the information provided by the managers. Barnett Waddingham requested the binary target measurement of each fund from our investment managers and aggregated the results based on the portion of assets invested in each fund.

Barnett Waddingham does not make any estimates for missing data. The Scheme's binary target measurement only represents the portion of the portfolio (c. 71% of the Scheme's uninsured assets i.e. excluding annuity) for which we have data.

## Target

We have set a target to improve the data quality metric. Without meaningful data from the investment managers, it is very hard for us to measure its climate-risk exposure. So, it is important to set a target to improve the quality of GHG emissions data from the managers. Based on the observation of data quality summarised in the previous section, we agreed to set the following data quality target for its Scheme's assets:

### Data quality



- 75% by 2026 across all asset classes on scope 1&2, and
- 75% by 2026 across all asset classes (ex LDI/cashflow matching) on scope 3

Last year, data quality on scope 1&2 only was 60%. This year, we are pleased to see an improvement in the score on scope 1&2 by 7% to 67%. However, the inclusion of scope 3 data brings the quality score down to 42%. This is unsurprising given the difficulties associated with measuring scope 3 data. Taking into account of the challenges in scope 3 data for government bonds, we adjusted the target for scope 3 and will focus on the scope 3 data quality on other asset classes.

Given the current score, the Trustee believes the target is still sufficiently challenging. We will work with appointed managers to identify opportunities to improve coverage.

Approved by A.A. Pensions Trustees limited on 7 October 2024

# Appendices

Glossary	
<b>Governance</b>	refers to the system by which an organisation is directed and controlled in the interests of shareholders and other stakeholders. Governance involves a set of relationships between an organisation's management, its board, its shareholders, and other stakeholders. Governance provides the structure and processes through which the objectives of the organisation are set, progress against performance is monitored, and results are evaluated
<b>Strategy</b>	refers to an organisation's desired future state. An organisation's strategy establishes a foundation against which it can monitor and measure its progress in reaching that desired state. Strategy formulation generally involves establishing the purpose and scope of the organisation's activities and the nature of its businesses, taking into account the risks and opportunities it faces and the environment in which it operates
<b>Risk management</b>	refers to a set of processes that are carried out by an organisation's board and management to support the achievement of the organisation's objectives by addressing its risks and managing the combined potential impact of those risks.
<b>Climate risk</b>	refers to the potential negative impacts of climate change on an organisation. Physical risks emanating from climate change can be event-driven (acute) such as increased severity of extreme weather events (e.g., cyclones, droughts, floods, and fires). They can also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns (e.g., sea level rise). Climate risks can also be associated with the transition to a lower carbon global economy, the most common of which relate to policy and legal actions, technology changes, market responses, and reputational considerations.
<b>Climate-related opportunity</b>	refers to the potential positive impacts related to climate change on an organisation. Efforts to mitigate and adapt to climate change can produce opportunities for organisations, such as through resource efficiency and cost savings, the adoption and utilization of low-emission energy sources, the development of new products and services, and building resilience along the supply chain. Climate-related opportunities will vary depending on the region, market, and industry in which an organisation operates.
<b>Greenhouse gas emissions ("GHG") scope levels</b>	greenhouse gases are categorised into three types or 'scopes' by the Greenhouse Gas Protocol, the world's most used greenhouse gas accounting standard. Scope 1 refers to all direct GHG emissions. Scope 2 refers to indirect GHG emissions from consumption of purchased electricity, heat, or steam. Scope 3 refers to other indirect emissions not covered in Scope 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions. Scope 3 emissions could include: the extraction and

	production of purchased materials and fuels, transport related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g., transmission and distribution losses), outsourced activities, and waste disposal.
<b>Value chain</b>	refers to the upstream and downstream life cycle of a product, process, or service, including material sourcing, production, consumption, and disposal/recycling. Upstream activities include operations that relate to the initial stages of producing a good or service (e.g., material sourcing, material processing, supplier activities). Downstream activities include operations that relate to processing the materials into a finished product and delivering it to the end user (e.g., transportation, distribution, and consumption)
<b>Climate scenario analysis</b>	is a process for identifying and assessing a potential range of outcomes of future events under conditions of uncertainty. In the case of climate change, for example, scenarios allow an organisation to explore and develop an understanding of how the physical and transition risks of climate change may impact its businesses, strategies, and financial performance over time.
<b>Net zero</b>	means achieving a balance between the greenhouse gases emitted into the atmosphere, and those removed from it. This balance – or net zero – will happen when the amount of greenhouse gases add to the atmosphere is no more than the amount removed

# Climate scenario modelling assumptions

The purpose of the climate scenario modelling is to consider the impact of climate risks on the Scheme's assets and liabilities over the long-term. In particular, the model considers different climate change scenarios and the approximate impact on asset/liability values over the long-term.

The scenario modelling assumes a deterministic projection of assets and liabilities on the self-sufficiency basis, using standard actuarial techniques to discount and project the Scheme's expected future cashflows.

It models the full yield curve as this allows for an accurate treatment of the liabilities and realistic modelling of the future distribution of interest rates and inflation. It also allows us to fully assess the sensitivities of the assets and liabilities to changes in interest and inflation rates.

The parameters in the model vary deterministically with the different scenarios.

The liability update and projections are considered appropriate for the analysis. However, they are approximate, and a full actuarial valuation carried out at the same date may produce a materially different result. The liability update and projections are not formal actuarial advice and do not contain all the information you need to make a decision on the contributions payable or investment strategy.

The model intends to illustrate the climate risks the Scheme is currently exposed to, highlighting areas where risk mitigation could be achieved through changing the portfolio allocation. Other relevant issues such as governance, costs and implementation (including manager selection and due diligence) must be considered when making changes to the investment strategy.

Investment risk is only captured in the deviance from the Base Case, but this is not the only risk that the Scheme faces; other risks include covenant risk, longevity risk, timing of member options, basis risks and operational risks.

The model has been set up to capture recent market conditions and views; the model may propose different solutions for the same strategy under different market conditions.



## Key modelling assumptions

	Temperature risk by 2100	Reach net zero by	Carbon price (2030/2050)	Introduction of environmental regulation
<b>No transition</b>	+4°C	After 2050	\$40 / \$50	None
<b>Disorderly transition</b>	< 3°C	After 2050	\$65 / \$340	Late and Aggressive
<b>Abrupt transition</b>	1.5°C - 2°C	2050	\$135 / \$280	Aggressive
<b>Orderly transition</b>	1.3°C - 2°C	2050	\$100 / \$215	Coordinated
<b>Smooth transition</b>	<1.5°C	2050	\$80 / \$165	High Coordination

Source: Aon.

The Trustee undertook the analysis based on the following Scheme's position:

Values excluding buy-in	31 March 2022
<b>Assets</b>	£2.04Bn
<b>Self-Sufficiency liabilities</b>	£2.38Bn

Source: Aon.

## Greenhouse gas emissions in more detail







Greenhouse gases in the atmosphere, including water vapour, carbon dioxide, methane, and nitrous oxide, keep the Earth's surface and atmosphere warm because they absorb sunlight and re-emit it as heat in all directions including back down to Earth. Adding more greenhouse gases to the atmosphere makes it even more effective at preventing heat from leaving the Earth's atmosphere.

Greenhouse gases are vital because they act like a blanket around the Earth making it the climate habitable. The problem is that human activity is making the blanket "thicker". For example, when we burn coal, oil, and natural gas we send huge amounts of carbon dioxide into the air. When we destroy forests, the carbon stored in the trees escapes to the atmosphere. Other basic activities, such as raising cattle and planting rice, emit methane, nitrous oxide, and other greenhouse gases.

The amount of greenhouse gases in the atmosphere has significantly increased since the Industrial Revolution. The Kyoto Protocol<sup>11</sup> identifies six greenhouse gases which human activity is largely responsible for emitting. Of these six gases, human-made carbon dioxide is the biggest contributor to global warming.

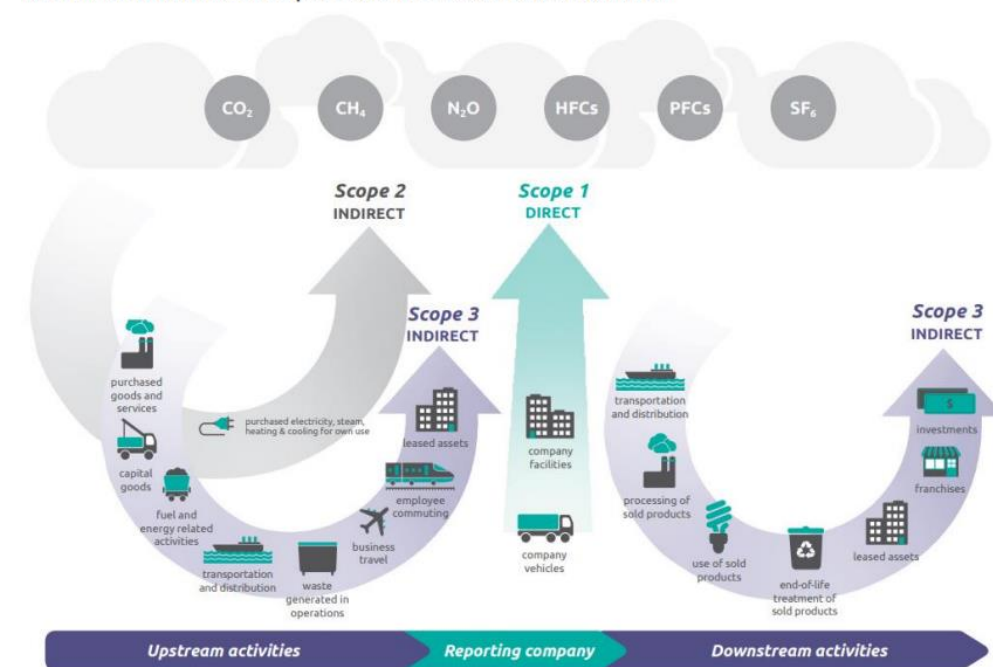
Each greenhouse gas has a different global warming potential and persists for a different length of time in the atmosphere. Therefore, emissions are expressed as a carbon dioxide equivalent (CO<sub>2</sub>e). This enables the different gases to be compared on a like-for-like basis, relative to one unit of carbon dioxide.

Six main greenhouse gases identified by the Kyoto Protocol

					
Carbon dioxide	Methane	Nitrous oxide	Hydro-fluorocarbons	Per-fluorocarbons	Sulphur hexafluoride
CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs	PFCs	SF <sub>6</sub>

Greenhouse gases are categorised into three types or 'scopes' by the Greenhouse Gas Protocol, the world's most used greenhouse gas accounting standard.

Overview of GHG Protocol scopes and emissions across the value chain



Source: Greenhouse Gas Protocol, [Corporate value chain \(scope 3\) Accounting and Reporting Standard](#), 2011