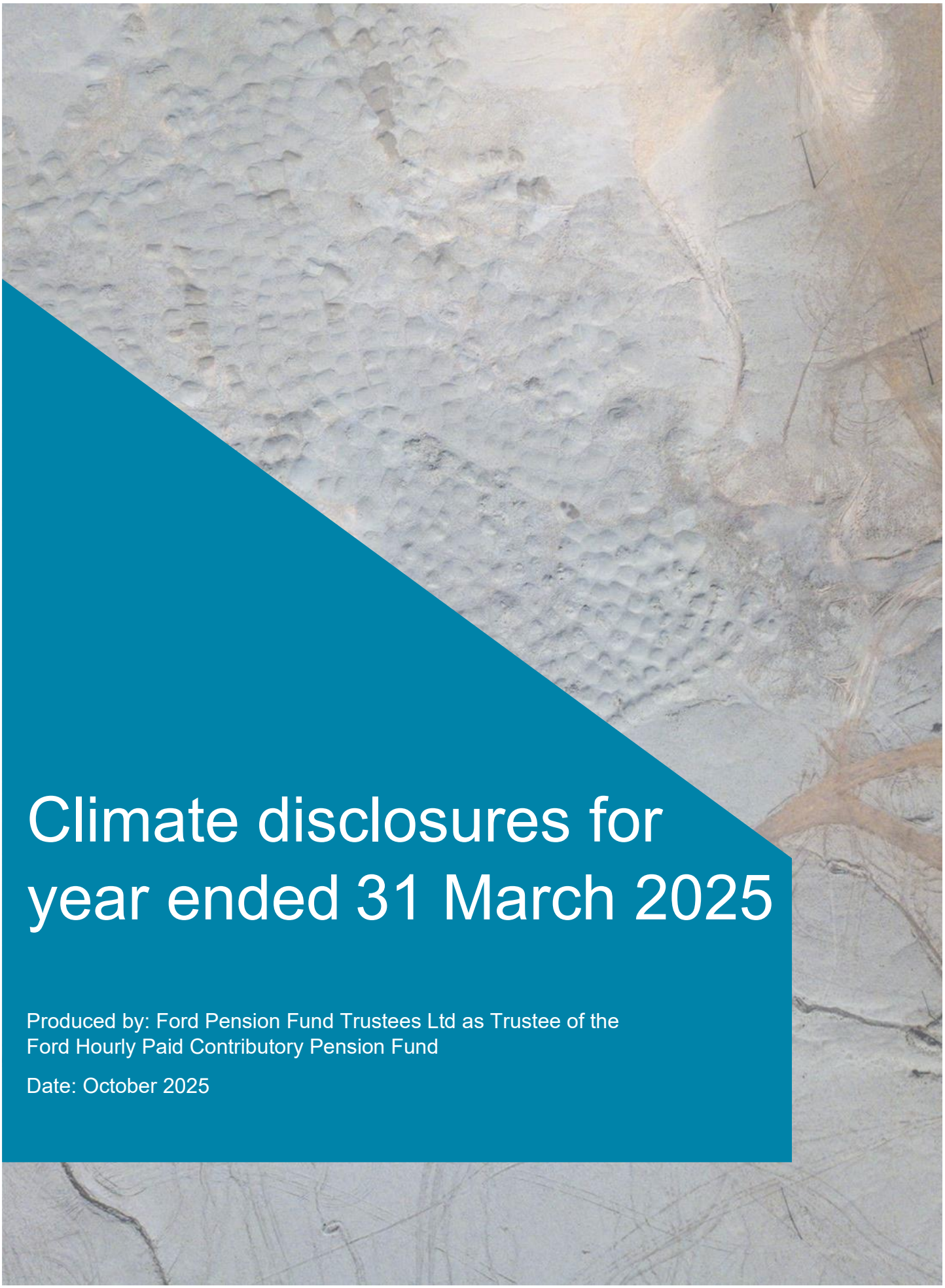
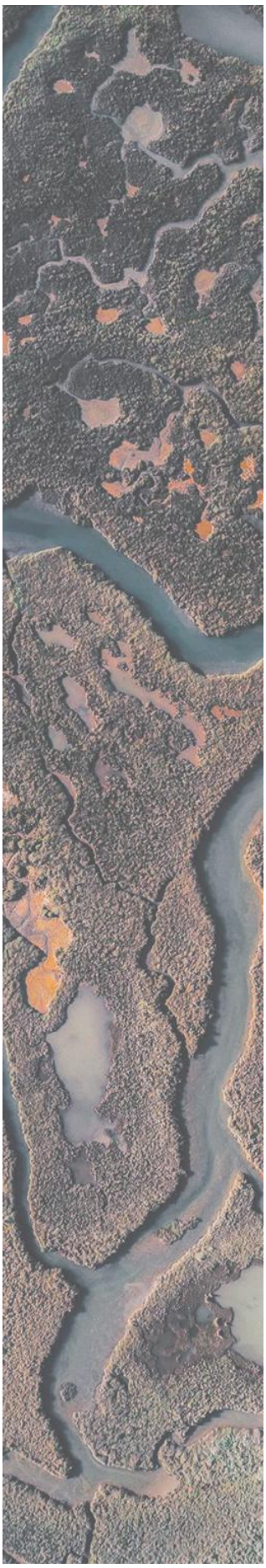


Climate disclosures for year ended 31 March 2025

Produced by: Ford Pension Fund Trustees Ltd as Trustee of the Ford Hourly Paid Contributory Pension Fund

Date: October 2025

Introduction



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 Ford Hourly Paid Contributory Pension Fund's (the "Fund") vulnerability to climate-related risks will help us to mitigate the risks and take advantage of any opportunities.

UK regulations require trustees of pension schemes with more than £1bn in assets to meet certain climate governance requirements and publish an annual report on their scheme's climate-related risks.

Better climate reporting should lead to better-informed decision-making on climate-related risks. And on top of that, greater transparency around climate-related risks should increase accountability and provide decision-useful information to investors and beneficiaries.

This report is the annual climate disclosures for the Fund for the year ended 31 March 2025.

The four elements covered in the report are:

Governance	The Fund's governance around climate-related risks and opportunities.
Strategy	The potential impacts of climate-related risks and opportunities on the Fund's strategy and financial planning.
Risk Management	The processes used to identify, assess and manage climate-related risks.
Metrics and Targets	The metrics and targets used to assess and manage relevant climate-related risks and opportunities.

This report has been prepared by Ford Pension Fund Trustees Ltd (the "Trustee"), in accordance with the regulations set out under The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 (the "Regulations").

Table of contents

Executive summary

This report sets out the actions that we, the Trustee, have taken to understand the potential impact climate change could have on the Fund.

We have worked closely with our investment adviser to identify the climate-related risks and opportunities faced by the Fund, and to understand ways we can manage and mitigate those risks.

Overview of the Fund

The Fund is set up as a Defined Benefit ("DB") Fund.

The Fund's investment portfolio is diversified across a range of different asset classes including equities, fixed income, property, hedging assets known as Liability Driven Investments ("LDI"), hedge funds and credit.

The Trustee has been supported by its investment adviser, Aon Investments Limited ("Aon"), and Ford Pension Fund Investment Management ("FPFIM") with the production of its TCFD disclosures report and also the data contained within it.

Governance

- The Fund is invested in a range of asset classes including equities, fixed income, property, hedging assets known as Liability Driven Investments ("LDI"), hedge funds and credit.
- We, the Trustee, are ultimately responsible for the oversight of all strategic matters relating to the Fund, this includes climate-related risks and opportunities.
- We have delegated oversight of the Fund's climate change risk management framework to the Ford Pension Fund Investment Management ("FPFIM"), where this relates to investment matters.

Strategy

Qualitative analysis

- Our qualitative analysis of climate related risks and opportunities showed that the asset classes in which the Fund invests are impacted to some degree by climate-related risks and over time, the risk exposure is expected to increase.
- We also identified several investment opportunities for the different asset classes. We will engage with our investment managers, where relevant, to understand these further.

Scenario analysis

- We reviewed the climate scenario analysis, which confirmed that the analysis undertaken for our report last year remained appropriate. This is due to no significant changes in the Fund's investment strategy.
- The Fund's investment portfolio exhibits some resilience under all the climate change scenarios considered. This is due to the diversification of assets, the low-risk strategy, and high levels of hedging against changes in interest rates and inflation.
- Under all three scenarios, the Fund is expected to remain in surplus across all time periods considered.

Risk Management

We have established a process to identify, assess and manage the climate-related risks and opportunities the Fund is exposed to. This is integrated into the Scheme/Plan's wider risk management framework.

Our climate risk management framework is set out on pages 21-23, which assists with the ongoing management of climate related risks and opportunities. Alongside this, the Trustee undertakes periodic training on responsible investment to understand how ESG factors, including climate change, may impact the Fund's assets and liabilities. Details of training the Trustee has undertaken through the Fund's year are included in the Governance Section and Risk Management Section.

Metrics and Targets

We have disclosed information on four climate-related metrics for each asset class of the Fund:

- Total Greenhouse Gas ("GHG") Emissions.
- Carbon Footprint.
- Data coverage.
- Portfolio of the portfolio with net zero or Paris aligned targets.

We have also set the following targets for the Fund:

- Improve the data quality (measured by data coverage) for the Fund's assets, split by asset class by 2027.
- Increase the proportion of the portfolio with net zero or Paris aligned targets, for the Fixed Income, Property, and Global Equity portfolio by 2030.

To tackle the Fund's climate-related risks, we have decided to take the following actions:

- Engage with managers who were unable to provide data;
- Ensure managers are providing consistent data.

The Trustee notes that achieving positive outcomes on pooled arrangements, in which the Fund invests, may be beyond the Trustee's control.

Following completion of the report, the Trustee was reassured that the various analysis showed that the potential financial impact of climate change on the Fund is not thought to be significant at this time. The Trustee, supported by FPFIM, has dedicated time to monitor the TCFD framework and will continue to monitor the potential impacts of climate change on the Fund.

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

Chair's signature

on behalf of the Trustee of the Ford Hourly Paid Contributory Pension Fund.

Governance

Governance is the way the Fund operates and the internal processes and controls in place to ensure appropriate oversight. Those undertaking governance activities are responsible for managing climate-related risks and opportunities. This includes us, as the Trustee, and others making Fund-wide decisions, such as those relating to the investment strategy or how it is implemented, funding, the ability of the sponsoring employer to support the Fund and liabilities.

Our Fund's governance

As the Trustee of the Fund, we are responsible for overseeing all strategic matters related to the Fund. This includes the governance and management frameworks relating to environmental, social and governance ("ESG") considerations and climate-related risks and opportunities.

We agreed our climate-related beliefs and our approach to managing climate change risk. These are set out in the Fund's Statement of Investment Principles ("SIP"), which is reviewed annually.

Our climate beliefs

We believe that the risks associated with climate change can have a materially detrimental impact on the Fund's investment returns and, as such, we have a role to play in helping to tackle climate change.

We believe that climate-related factors may create investment opportunities. We will seek to capture such opportunities through our investment portfolio where it is appropriately aligned with our strategic objectives and fiduciary duty.

We believe that the most appropriate time horizon for the Fund is follows:

- Short-term: 1-3 years
- Medium-term: 4-10 years
- Long-term: 11+ years

Trustee's update

During the reporting year, the Trustee received training on TCFD-aligned targets. The training evaluated the existing data quality targets and looked at how these targets could be strengthened as well as considering setting a new target.

Following the training session, the Trustee agreed to set an additional target to monitor the portion of the portfolio with net zero or Paris-aligned targets.

Further detail can be found in the Metrics and Targets section of this report.

Climate-related risks and opportunities are integrated into our risk management framework so we can maintain oversight of the climate-related risks and opportunities that are relevant to the Fund.

We receive training on an annual basis (or more frequently if required) on climate-related issues to ensure that we have the appropriate knowledge and understanding to support good decision-making.

We expect our advisers and investment managers to bring important climate-related issues and developments to our attention in a timely manner. We expect our advisers and investment managers to have the appropriate knowledge on climate-related matters. We have delegated oversight of the Fund's climate change risk management framework to FPFIM, where this relates to investment matters. FPFIM keeps us apprised of material climate related developments on a regular basis (typically annually).

Role of FPFIM

We have delegated the ongoing monitoring of the Fund's climate change risk management framework to FPFIM where this relates to investment matters. The key activities undertaken by FPFIM, with the support of The Trustee's advisers, are to:

- ensure the investment strategy or any implementation proposals consider the impact of climate risks and opportunities
- seek investment opportunities which enhance the ESG and climate change focus of the Fund's portfolio
- engage with the Fund's investment managers to understand how climate-related risks are considered in their investment approach
- work with the investment managers to disclose relevant climate-related metrics as set out in the TCFD recommendations
- ensure stewardship activities are being carried out appropriately by the investment managers on the Fund's behalf
- monitor and review progress against the Fund's risk management framework twice a year.

FPFIM will meet on an informal basis quarterly to carry out the above activities. FPFIM will keep us updated on any material climate-related developments through updates at Trustee meetings, which will be on an annual basis. This will be supplemented on an ad-hoc basis should the need arise.

Trustee's update

The Trustee has collected carbon data from its investment managers.

It has been supported in this exercise by FPFIM and its investment adviser.

FPFIM, in its role as delegated by the Trustee, has worked with the Trustee's investment adviser to complete this as far as reasonably possible. This has involved engaging with managers where gaps in data have been identified to be able to improve disclosures.

How we work with our advisors

We expect our advisers and investment managers to bring important climate-related issues and developments to our attention in a timely manner. We expect our advisers and investment managers to have the appropriate knowledge on climate-related matters.

Investment adviser - our investment adviser, Aon, provides investment-related strategic advice and support on our climate-related risks and opportunities. This includes regular training and updates on climate-related issues, climate change scenario modelling and ESG ratings for investment managers.

The Trustee will monitor the quality of climate-related support and advice from its investment adviser as part of an annual review against the investment consultant's objectives.

Trustee's update

The Trustee sets clear expectations to its investment advisers around the need to bring important and relevant climate-related issues and developments to the Trustee's attention in a timely manner.

This is considered as part of any review of objectives set for our advisers.

Scheme Actuary - the Scheme Actuary, helps us assess the potential impact of climate-related risks on the Fund's funding where relevant.

As part of its assessment of its advisers' climate-related competence, the Trustee will seek to understand how climate-related factors affect the funding assumptions used for the Fund, and which sources of expertise the Fund Actuary has used in determining the appropriate assumptions to use.

Covenant adviser - our covenant adviser helps us understand the potential impact of climate-related risk on the Sponsor covenant of the principal Employer.

Strategy

It is crucial to think strategically about the climate-related risks and opportunities that will impact the Fund if we are to stand a chance of mitigating the effects of climate change.

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

What climate-related risks are most likely to impact the Fund?

We carry out a qualitative risks and opportunities assessment of the asset classes the Fund is invested in. From this we identify which climate-related risks could have a material impact on the Fund. We also consider suitable climate-related opportunities.

As part of our assessment, we surveyed ten of our investment managers asking them to evaluate the climate-related risks and opportunities that they believe their fund(s) is exposed to. Given the number of asset classes and strategies used in the Fund, we completed this exercise to the best of our ability.

In general, the investment managers were responsive and demonstrated varying levels of understanding of climate related risks and opportunities.

At the time of writing all of the Fund's investment managers were able to provide some information for the climate related risk assessment. Whilst we encourage our investment managers to provide the information in the format requested, to ensure it covers all the information required to assess their capabilities of identifying and managing climate related risks, it is not mandatory for the investment managers to provide information in this way.

- The Private Equity managers were excluded from the analysis based on materiality grounds as these assets represent a small portion of the Fund's assets and are expected to reduce in the future.
- Similar to previous years, one of the Fixed Income, Hedge Fund, Global Equity, and Private Credit managers have not been able to provide a quantitative assessment of the climate-related risks for the Fund's TCFD disclosures. However, the managers were able to provide some qualitative information which was taken into account when forming the below analysis.

Trustee's update

In 2024, we asked our investment managers to assess their exposure to climate-related risks for the funds the Fund is invested in.

This year, we asked our managers to review their risk assessments and update them if necessary. There were minimal changes identified by the managers.

The full assessment is set out on pages 12-14 of the report.

Our investments

The Fund's investment portfolio is diversified across a range of different asset classes including LDI, fixed income, private credit, hedge funds, global equity, private equity and property.

The Fund's asset allocation is as follows:

Asset Class	LDI	Fixed Income	Private Credit	Hedge Funds	Private Equity	Property	Global Equity
Asset Allocation	51.1%	28.8%	7.4%	5.8%	2.2%	2.4%	2.3%

Asset allocations as at 31 December 2024. Totals may not sum to 100% due to rounding.

How the qualitative risk assessment works

Risk categories

In the analysis, the climate-related risks have been categorised into physical and transition risks.

Transition risks are associated with the transition towards a low-carbon economy.

Physical risks are associated with the physical impacts of climate change on companies' operations.

More details about transition and physical risks can be found in the *Appendix*.

Ratings

The analysis uses a RAG rating system where:

Red denotes a higher level of financial exposure to a risk.

Amber denotes a medium level of financial exposure to a risk.

Green denotes a lower level of financial exposure to a risk.

Time horizons

We assessed the climate-related risks and opportunities over multiple time horizons considering the liabilities of the Fund and its obligations to pay benefits. We decided the most appropriate time horizons for the Fund are:

Short-term: 1-3 years

Medium-term: 4-10 years

Long-term: 11+ years

Climate-related risk assessment

Key conclusions

Over the year, the climate-related risks and opportunities identified for the fund are consistent with last year, with minimal changes in manager responses.

Diversification across asset classes, sectors and regions is important to manage climate-related physical and transition risks for the Fund.

The LDI portfolio is less affected by climate risk compared to the Fund's other assets. The Fund invests in government bonds via its LDI portfolio, these assets aim to match movements in the Fund's liabilities. The Trustee believes in practice, the impact of these risks may be limited on the Fund's strategy and funding (due to the assets and liabilities moving in similar ways).

Property is also a high-risk area, particularly in relation to physical climate risks if they are in regions that are vulnerable to climate change. The Fund's property manager has confirmed that it is accounting for these physical risks by not investing in properties in high-risk regions as well as ensuring there is full insurance against potential damage.

The Private Credit manager has only provided ratings for the short-term transitional risks, previously provided ratings for medium-term transitional risks, as the manager is currently re-evaluating the narratives affecting illiquid credit assets leveraging latest climate science and intends to provide an updated view later in the year.

The following tables summarise the transition and physical risks for each asset class the Fund is invested in.

Liability Driven Investments (LDI) – 51.1% of portfolio

Physical Risks

	Acute	Chronic
Short	G	G
Medium	G	G
Long	G	G

The UK has made good progress in reducing emissions by international standards and is geographically less exposed to physical climate risks than other nations (although not immune). The country's direct impact on global climate change is minimal (the UK only accounted for around 1% of global emissions in 2019).

Transitional Risks

	Regulatory	Technology	Market	Reputation
Short	G	G	G	G
Medium	G	G	G	G
Long	G	G	G	G

The Fund's UK LDI portfolio is predominately invested in gilts. The climate-related financial risk to UK gilt holdings can broadly be thought of in two ways: the credit risk caused by an increase in the probability of default and the mark-to-market risk caused by the changing yield environment under different climate scenarios. In all cases the credit risk to the holdings is expected to be relatively benign – the UK's ability to pay back its debt obligations is not expected to be materially impacted by climate change. Additionally, given the objective of the portfolio is to track that of the liabilities, the impact on the value of gilts from climate change outcomes is less relevant than for other assets.

Fixed Income – 28.8% of portfolio

Physical Risks

	Acute	Chronic
Short	G	G
Medium	G	G
Long	A	A

Over the long term, the Fund's fixed income managers saw an increase in risk due to more frequent occurrences in weather events.

Transitional Risks

	Regulatory	Technology	Market	Reputation
Short	G	G	G	G
Medium	A	G	A	A
Long	A	A	A	A

The Fund's fixed income managers see minimal risk in relation to the transition to a low-carbon economy, however overall, managers expect risks to intensify in the long-term as an increased awareness around the physical risks of climate change and its consequences happens within the industry.

Private Credit – 7.4% of portfolio

The Fund invests in two private credit mandates which are managed by separate investment managers. Both were contacted for information, however one of which was unable to provide a clear response to the RAG rating but did provide some qualitative information, which is incorporated below. The table below is representative of the other private credit manager which was able to provide information requested.

Physical Risks

	Acute	Chronic
Short	N/A	N/A
Medium	N/A	N/A
Long	N/A	N/A

The fund follows a buy and hold approach for private assets, with a fund life of less than 10 years. Therefore, the investment manager believes that any physical climate risk will not become the dominant risk until after this and therefore does not think it will materially affect the assets in the fund.

Transitional Risks

	Regulatory	Technology	Market	Reputation
Short	A	G	A	G
Medium	N/A	N/A	N/A	N/A
Long	N/A	N/A	N/A	N/A

The investment manager believes that due to the fund's life the long-term transitional risk is out of scope.

The manager believes that there is an increased focus on policy and regulation, for example, companies being able to report on items such as carbon emissions, water, and waste. The manager states that the increased burden on reporting may result in higher operating costs in the short term.

In the medium term, the fund faces potential policy and legal challenges, such as carbon taxes, and a shift towards greener technology, which may impact high carbon-emitting sectors. However, the manager believes these risks are immaterial due to the fund's diversified portfolio limiting the exposure to the sensitive sectors.

Hedge Funds – 5.8% of portfolio

The Fund invests in one hedge fund mandates which are managed by separate investment managers. Both were contacted for information, however one of which was unable to provide information for the RAG rating but did provide some qualitative information. The table below is representative of the other hedge fund manager which was able to provide information requested.

Physical Risks

	Acute	Chronic
Short	G	G
Medium	G	G
Long	G	G

Given the nature of these funds, the manager states that much of the risk associated with climate change is mitigated due to the nature of the investments. This is something which the Trustee, supported by its advisor FPFIM, will continually challenge its investment managers on.

Transitional Risks

	Regulatory	Technology	Market	Reputation
Short	G	G	G	G
Medium	G	G	G	G
Long	G	G	G	G

The investment managers do not see any transitional risks in the short to long-term relating to Policy, Technology, Market and Reputation as for Hedge funds portfolios.

Property – 2.4% of portfolio

Physical Risks

	Acute	Chronic
Short	A	G
Medium	A	G
Long	A	A

Over the long-term, the manager believes that as extreme weather events become more frequent and severe the impact of these physical risks is likely to become more significant and could lead to property damage and material financial impacts, particularly in geographically vulnerable areas. However, the manager is taking physical risks into account to help mitigate by having fewer assets in high-risk areas – where these do occur the assets would be fully insured (however this carries another risk that insurance premiums may increase).

Transitional Risks

	Regulatory	Technology	Market	Reputation
Short	A	G	A	G
Medium	A	A	A	G
Long	A	A	A	G

The investment manager does not see any transitional risks in the short-term relating to Technology, and Reputation. However, it does see changes in policy as a medium risk due to the increasing pressure from investors and regulators in the short-term. Over the longer-term the investment manager identified increases in operating costs and high capital expenditure posing to be a high-financial material risk..

Source: Managers, Aon.

Climate-related opportunities

We identified some climate-related opportunities which may be suitable for the Fund. These will be explored with support provided by FPFIM and the Fund's appointed investment managers. These opportunities are relevant over the short, medium and long term time horizons:

LDI	Green gilts provide LDI mandates with a climate-related opportunity where the bonds they buy are specifically linked to the financing of green initiatives. The UK government's green financing framework sets out six key areas where the proceeds will be invested: clean transportation, climate change and adaption, renewable energy, energy efficiency, pollution prevention and control and living and natural resources.
Fixed Income	As climate issues gain prominence, investment opportunities in this area have expanded, supporting clients who seek positive environmental or social impacts alongside financial returns, typically through use-of-proceeds bonds and impact investments. However, corporate bond funds may face limited opportunities in the short term, as bond investors are shielded from some downside risks but also miss out on potential upside benefits compared to equity investors.
Private Credit	Private credit offers numerous climate-related investment opportunities through its targeting of specific projects and smaller companies, leading to more direct impact investments than public bond markets. This approach leverages private investments in supporting the transition to a greener economy. With exposure to renewable energy assets, the Fund benefits from favourable investor trends, supportive policies, and decreasing costs, enhancing its climate opportunities. Investments in transition sectors like solar energy further strengthen the Fund's role in the shift towards a low-carbon economy.
Hedge Funds	Climate-related opportunities in the portfolio may arise through Energy Transition Finance and Sustainable Infrastructure investments like wind farms and greenhouses. These areas offer potential for growth and alignment with TCFD objectives.
Property	Efficient buildings with reduced emissions and better resource efficiency are increasingly preferred by tenants and investors, potentially leading to improved financial outcomes. Capital expenditure on existing assets using tools like Carbon Risk Real Estate Monitor ("CRREM") to prevent obsolescence and enhance returns. Additionally, incorporating renewable energy solutions, such as rooftop solar, can further boost returns on industrial assets.

Source: Managers.

How resilient is the Scheme to climate change?

In 2023, we carried out climate change scenario analysis to better understand the impact climate change could have on the Fund's assets and liabilities.

The analysis looks at three climate change scenarios plus the base case scenario. We chose these scenarios because we believe that they provide a reasonable range of possible climate change outcomes. The climate scenarios are compared to a base case scenario, which is based on what is priced into the market at the effective date of the modelling.

Each climate scenario considers what may happen to the Fund when transitioning to a low carbon economy under different temperature-related environmental conditions. These scenarios were developed by Aon and are based on detailed assumptions. They are only illustrative and subject to considerable uncertainty.

The climate scenarios intend to illustrate the climate-related risks the Fund is currently exposed to, highlighting areas where risk mitigation could be achieved through changing the investment portfolio.

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 captured in the deviance from the base case scenario, but this is not the only risk that the Scheme/members faces. Other risks include covenant risk, longevity risk, timing of member options, and operational risks.

Trustee update

Under the Regulations, climate scenario analysis must be carried out at least every 3 years, with an annual review in each intervening year to confirm the most recent analysis is still appropriate. Circumstances which may require the climate scenario analysis to be re-done may be as a result of, but not limited to:

- a significant/material change to the investment and/or funding strategy; or
- the availability of new or improved scenarios or modelling capabilities or events that might reasonably be thought to impact key assumptions underlying scenarios.

We reviewed the scenario analysis completed as at 30 June 2023, and we believe that the analysis remains appropriate for this year's report due to absence of significant changes to the investment strategy.

DB Impact on the funding level

Key conclusions

The Trustee reviewed the climate scenario analysis and concluded that it remains appropriate for the Fund's investment portfolio over this reporting period.

Overall, we are comfortable with the level of resilience exhibited by the investment portfolio, and do not intend to make any significant changes to the investment or funding strategy as a result of this analysis.

The impact assessment showed that the Fund's long term investment strategy exhibits resilience under all the climate scenarios considered. Over all timeframes, the Fund is expected to remain in surplus. This conclusion was reassuring to the Trustee. This is due to the low-risk strategy and high levels of hedging against changes in interest rates and inflation.

Climate scenarios in more detail

The climate scenarios illustrate the climate-related risks the Fund is currently exposed to, highlighting areas where risk mitigation could be achieved through changing the investment portfolio. 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.

For Aon's analysis, investment risk is captured in the deviance from the Base Case, but this is not the only risk that the Fund faces. Other risks include covenant risk, longevity risk, timing of member options, basis risks and operational risks.

The table below describes further narrative of the impact of each scenario on the Fund over the short-, medium- and long-term time horizons. For the purposes of the climate scenario modelling, the Trustee considered the long-term time horizon to be 11-20 years.

Base case	**Summary of the Scenario**	**Summary of the impact to the Fund**
Temperature rise +1.5ºC - 2.4ºC Reach net-zero 2050 Uncoordinated environmental regulation	The base case is based on Aon's Capital Market Assumptions which consider what is currently priced into the market. This includes climate change related impact. In the base case, action is taken to tackle climate change, but the approach is fragmented. The transition to a low carbon economy is expected to happen in a slow but orderly fashion.	The funding level gently increases, with an acceleration over time.
No Transition Scenario Temperature rise +4ºC Reach net-zero after 2050	**Summary of the Scenario** **In the short term:** No action taken to combat climate change. **In the medium term:** No action taken to combat climate change. **In the long term:**	**Summary of the impact to the Fund** **In the short term:** There is no initial risk to the Fund, as the funding level is expected to follow the base case. **In the medium term:** The Fund's funding level begins to lag the base case but remains in surplus. **In the long term:**

No environmental regulation	Climate change headwinds grow and act as a drag on economic growth and risk asset returns. Impacts from physical risks become more severe and irreversible by 2100.	The funding position continues to lag the base case, and more optimistic scenarios, driven by performance of growth assets and the impact of economic growth. Overall, the Fund is expected to remain in surplus.
Disorderly Scenario Temperature rise <4°C Reach net-zero after 2050 Late and aggressive environmental regulation	**Summary of the Scenario** **In the short term:** Insufficient consideration is given to long-term policies and there is no action taken to combat climate change **In the medium term:** Late but coordinated action is taken to tackle climate change. The late timing means it is less effective and more costly to implement. Adverse impacts from climate change leads to poor performance of growth assets. **In the long term:** The transition to clean technologies and green regulation begins to boost economic growth. However, physical climate risks remain prominent.	**Summary of the impact to the Fund** **In the short term:** There is no initial risk to the Fund, as the funding level is expected to follow the base case. **In the medium term:** The Fund's funding level deteriorates as a result of late and aggressive action to tackle climate change. Despite this, the funding level is expected to remain in surplus. **In the long term:** Whilst the funding level recovers by the end of the 30-year modelling period, this leaves the Fund worse off in terms of surplus relative to the base case, albeit still in surplus. This is the worst outcome for the Fund within the timeframes considered.
Orderly Scenario Temperature rise <2°C Reach net-zero 2050 Coordinated environmental regulation	**Summary of the Scenario** **In the short term:** Immediate coordinated global action is taken to tackle climate change. Growth assets perform poorly. **In the medium term:** The rapid transition to clean technologies and green regulation begins to boost economic growth. **In the long term:** Economic growth continues. This represents the fastest transition to a green economy, combined with limited physical impacts from climate change despite the large initial cost of the transition.	**Summary of the impact to the Fund** **In the short term:** The Fund experiences an initial fall in the funding level, however the Fund is expected to remain in surplus. **In the medium term:** The funding position begins to recover as risky assets perform well, benefitting from the economic growth. **In the long term:** The Fund's assets gain from the economic growth and the funding level is expected to continue to grow. This is expected to be the best outcome for the Fund.

Source: Aon. Scenario projections as at 30 June 2023 on Technical Provisions Basis
Please note: The results of the scenario modelling are illustrative and rely on many assumptions. These are subject to considerable uncertainty.

Modelling limitations

Scenario modelling relies on many assumptions. They are only illustrative and subject to considerable uncertainty. Please see the *Appendix 3 – Climate scenario modelling assumptions* for more detailed information on the assumptions underpinning the scenarios.

The climate scenarios modelling illustrates the potential impact climate change could have on the asset portfolios. It does not consider the impact climate change could have on other risks for our clients, such as timing of member options, operational risks, and for DB clients covenant risk and longevity risk.

The scenario modelling reflects market conditions and market views at the effective date of the modelling. The model may produce different results for the same strategy under different market conditions.

Considering the impact of climate change on the sponsoring employer(s)

The Trustee recognises the importance of climate change and the risk it poses to the Fund. The Trustee takes climate-related risks into account in determining its investment strategy.

As per last year's analysis, the key risk identified from the climate scenario analysis is the volatility of the funding level. Under the *orderly* and the *disorderly transition*, the Fund experiences sudden falls in the funding level before recovering (albeit, the Fund is expected to remain in surplus under the scenarios and time periods considered). Deterioration, and increased volatility, of the funding level would place a strain on the Employer covenant if it required to make up any funding shortfall. It may also require the Fund to re consider its investment strategy or extend the time frame for achieving full funding or other long-term goals.

However, as part of the preparation of this report, the Trustee has considered that the Fund is well funded and invests in a relatively low-risk strategy with high levels of hedging. As such, the Trustee has taken a more proportionate response in relation to the covenant assessment.

The Trustee therefore recognises that climate change may have an impact on the Employer covenant. The Trustee monitors the covenant on a regular basis, with the support of its covenant adviser, and maintains a regular dialogue with the Employer. It is supported in this by its covenant adviser who considers the impact of climate-related risks on the Sponsor covenant.

Details of the parent company's actions being taken in relation to climate change and sustainability can be found here.

Risk management

We must have processes to identify, assess and manage the climate-related risks that are relevant to the Fund and these must be integrated into the overall risk management of the Fund.

Reporting on our risk management processes provides context for how we think about and address the most significant risks to our efforts to achieve appropriate outcomes for members.

Our climate risk management framework

We have established a process to identify, assess and manage the climate-related risks that are relevant to the Fund. This is part of the Fund's wider risk management and is how we monitor the most significant risks to the Fund in our efforts to achieve appropriate outcomes for members.

The climate risk management framework is set out in the tables. We delegate a number of key tasks to different committees but retain overall responsibility.

Governance

Activity	Owner	Adviser / supplier support	Frequency of review
Receive training on climate-related issues to ensure that the Trustee has the appropriate degree of knowledge and understanding on climate-related issues to support good decision-making.	FPFIM, Trustee	Advisers, FPFIM	Ongoing
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	Aon, FPFIM	Ongoing
Ensure investment proposals explicitly consider the impact of climate risks and opportunities, and seek investment opportunities	Trustee	FPFIM	Ongoing
Proactively seek investment opportunities which enhance the ESG and climate change focus of the Fund's portfolio.	FPFIM	FPFIM, Advisers	Ongoing
Climate change governance framework (this document)	Trustee	Aon, FPFIM	One off
Ensure that actuarial and covenant advice adequately incorporate climate-related risk factors where they are relevant and material	Trustee	Scheme Actuary, Covenant adviser	Triennial
Publish TCFD report and implementation statement	Trustee	Advisers	Annual

Trustee update

We monitored the above activities as part of our climate related risks and opportunities management, receiving regular updates from the FPFIM and querying information as and when required. FPFIM have engaged with our investment managers, as and when required as part of the preparation of this report.

During the year we also published our TCFD report and Engagement Policy Implementation Statement.

We received training on TCFD-aligned targets from our advisers to ensure we are comfortable with the existing targets, and to explore opportunities for setting new targets that align with our long-term investment strategy, which led to us setting an additional portfolio alignment target this year.

Strategy

Activity	Owner	Adviser / supplier support	Frequency of review
Identify climate-related risks and opportunities (over agreed time periods) for investment & funding strategy	Trustee	FPFIM, Advisers	Annual
Undertake quantitative scenario analysis to understand the impact of climate related risks	Trustee	FPFIM, Investment adviser	Annual review, Triennial refresh

Trustee update

We have spent dedicated time during the year to analyse climate-related risks and opportunities for the Fund's various asset classes with the support of FPFIM and our investment adviser. Part of this has been to undertake the qualitative assessment of climate related risks and opportunities, which can be found in the Strategy section of this report. FPFIM and our investment adviser, have liaised with our investment managers, querying data as appropriate.

We undertook an annual review of the climate change scenario analysis - this concluded last the year's analysis remained appropriate. Details can be found within the Strategy section.

Risk management

Activity	Owner	Adviser / supplier support	Frequency of review
Consider the prioritisation of those climate-related risks, and the management of the most significant in terms of potential loss and likelihood.	FPFIM	Advisers	Annual
Include consideration of climate-related risks in the Fund's other risk processes and documents, such as the risk register and the SIP, and regularly review these.	Trustee	FPFIM, Advisers	One-off, ongoing thereafter
Seek to understand the climate-related risks to the employer over the short, medium, and long term.	Trustee	Covenant adviser	Annual

Trustee update

We have processes in place for identifying and assessing climate related risks. Climate risks management is integrated into the ongoing risk management activities of the Fund via the risk register and this climate risk management plan.

Metrics and Targets

Activity	Owner	Adviser / supplier support	Frequency of review
Obtain data for metrics	FPFIM	Investment adviser, fund managers	Annual
Review continued appropriateness of metrics	FPFIM	Investment adviser	Annual

Trustee update

The Trustee, supported by FPFIM and its investment adviser, collects metrics data on an annual basis, to understand the current state of the portfolio regarding its emissions, data coverage and portfolio alignment metrics. This data is evaluated to produce a climate-related target, whereby in this instance the Trustee has elected to improve the data coverage for the Fund.

Metrics have been collected in line with industry practice and supported by FPFIM. The Funds' data coverage has improved across majority of the asset classes since last year's reporting period. The Trustee has met the 2027 data coverage targets for the fixed income and hedge fund, property, and LDI asset classes. Based on the data received, the Trustee is very close to meeting 2027 target for the remaining assets classes too.

The Trustee has therefore chosen to set a new target for 2030, with respect to the proportion of the portfolio with net zero or Paris aligned targets for Fixed Income, Property, and Global Equity. Further detail can be found in the Metrics and Targets section.

Assessing our managers

To assess our managers' abilities to manage climate-related risks, we asked them 10 questions designed by the Pensions Climate Risk Industry Group to help trustees do just that. The questions cover a range of topics including the manager's approach to climate management, net zero, whether they produce their own TCFD reporting, their ability to conduct climate scenario analysis, their engagement policies, and their ability to provide GHG emissions data.

Key conclusions

The Trustee chose to only include the material managers of the Fund within its analysis.

There was good engagement from the managers with all ten of the Fund's managers completing the requested questionnaire.

TCFD reporting: All of the managers produce TCFD aligned reports, and majority of the managers committed to providing us with GHG emissions data for this report.

Industry initiatives and wider engagement: Similarly, all the of the managers, participate in industry initiatives such as the Climate Action 100+, Institutional Investors Group on Climate Change, United Nations' Principles of Responsible Investment and Science Based Targets Initiative.

Scenario analysis: Eight managers carry out climate-related risk analysis (previously only seven).

Targets: Most managers have either set a Net Zero commitment or are currently working towards setting a commitment or becoming aligned with the Paris Agreement.

We are not taking any immediate action in line with these conclusions. We continue to expect our managers to consider the issue of climate change in their investments.

Metrics & Targets

Metrics help to inform our understanding and monitoring of the Fund's climate-related risks. Quantitative measures of the Fund's climate-related risks, in the form of both greenhouse gas emissions and non-emissions-based metrics, help us to identify, manage and track the Fund's exposure to the financial risks and opportunities climate change will bring.

Our climate-related metrics

We use some quantitative measures to help us understand and monitor the Fund's exposure to climate-related risks.

Measuring the greenhouse gas emissions related to our assets is a key way for us to assess our exposure to climate change.

Greenhouse gases are 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, contributing to climate change.

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

All direct emissions from the activities of an organisation which are under their control; these typically include emissions from their own buildings, facilities and vehicles

Scope 2

These are the indirect emissions from the generation of electricity purchased and used by an organisation

Scope 3

All other indirect emissions linked to the wider supply chain and activities of the organisation from outside its own operations – from the goods it purchases to the disposal of the products it sells

Scope 3 emissions are often the largest proportion of an organisation's emissions, but they are also the hardest to measure. The complexity and global nature of an organisation's value chain make it hard to collect accurate data.

For more explanation about GHG emissions, please see the Appendix.

Our climate-related metrics – in detail

In our first year of TCFD reporting, we decided what metrics to report on annually; these are described below. This year we reviewed the metrics, and we believe they continue to be suitable for us to report against.

Total Greenhouse Gas emissions

The total greenhouse gas (GHG) emissions associated with the portfolio. It is an absolute measure of carbon output from the Fund's investments and is measured in tonnes of carbon dioxide equivalent (tCO2e).

Carbon footprint

Carbon footprint is an intensity measure of emissions that takes the total GHG emissions and weights it to take account of the size of the investment made. It is measured in tonnes of carbon dioxide equivalent per million pounds invested (tCO2e/£m).

Data Coverage

A measure of the proportion of the portfolio that there is high quality data for (i.e. data which is based on verified, reported, or reasonably estimated emissions, versus that which is unavailable).

Binary target measurement

A metric which shows how much of the Fund's assets are aligned with a climate change goal of limiting the increase in the global average temperature to 1.5˚C above pre-industrial levels.

It is measured as the percentage of portfolio investments with a declared net-zero or Paris-aligned target, or are already net-zero or Paris-aligned.

Carbon metrics

In the table below are the climate-related metrics for the Scheme's assets. You will note that we have not aggregated metrics across the whole portfolio because the methodologies used for some asset classes are significantly different and therefore it is not appropriate to combine them.

			Scopes 1 and 2			Scope 3		
Asset class	**Allocation** (%)	**Year**	**Data Coverage** (%)	**Total GHG emissions** (tCO_2e)	**Carbon footprint** (tCO_2e/£m)	**Data Coverage** (%)	**Total GHG emissions** (tCO_2e)	**Carbon footprint** (tCO_2e/£m)
Fixed Income	30.1%	2025	74.2%	72,888	82.5	56.2%	282,650	422.0
	33.5%	*2024*	*71.5%*	*117,833*	*109.9*	*52.1%*	*292,255*	*373.9*
Private Credit	7.7%	2025	41.6%	6,254	49.4	41.6%	50,149	396.0
	7.2%	*2024*	*67.5%*	*32,379*	*149.6*	*11.5%*	*14,824*	*401.4*
Hedge Fund	4.6%	2025	-	-	-	-	-	-
	5.6%	*2024*	-	-	-	-	-	-
Hedge Fund A - Long Position	3.1%	2025	58.0%	5,490	75.3	58.0%	33,311	455.0
	2.6%	*2024*	*61.0%*	*5,316*	*40.1*	*61.0%*	*30,240*	*226.2*
Hedge Fund A - Short Position		2025	58.0%	2,856	39.5	58.0%	19,738	274.7
		2024	*61.0%*	*2,282*	*30.6*	*61.0%*	*15,757*	*211.3*
Hedge Fund B	1.4%	2025	44.5%	2,321	73.7	0.0%	-	-
	3.0%	*2024*	*40.8%*	*3,238*	*58.4*	*0.0%*	-	-
Property	2.5%	2025	42.3%	1,064	25.0	0.0%	-	-
	2.1%	*2024*	*36.7%*	*906*	*25.8*	*0.0%*	-	-
Global Equity	2.4%	2025	98.0%	5,026	53.2	98.0%	50,325	532.7
	1.1%	*2024*	*99.7%*	*3,268*	*65.4*	*99.7%*	*31,256*	*625.4*
LDI	52.7%	2025	100.0%	266,817 Physical gilts exposure 17,645 Synthetic gilts exposure	141.2	*n/a*		
	48.1%	*2024*	*100.0%*	*345,626 Physical gilts exposure* *91,740 Synthetic gilts exposure*	*170.2*	*n/a*		

Source: Investment managers / Aon.
Excludes cash, private equity.
2025 data as at 31 December 2024 except for Townsend which is as at 30 September 2024.
2024 data as at 31 December 2023 except for Townsend which is as at 30 September 2023.
2025 emissions associated with LDI has been calculated from the following sources:

- 2025 data as at 31 December 2024.
- 2024 data as at 31 December 2023.
- Physical-synthetic split as at 31/12/2024 from the manager.
- UK national emissions as at 31 December 2023 from the Emissions Database for Global Atmospheric Research.
- PPP-adjusted GDP as at 31 December 2023 from the Organization for Economic Cooperation and Development.
- For the LDI assets, carbon metrics are shown solely in relation to the Scheme's physical and repurchase (repo) gilt holdings.

Commentary

The Trustee observed the following in relation to its assets over the latest year.

Fixed Income

- There has been an improvement in both the scope 1&2 and scope 3 data coverage. This year an additional manager was able to report on scope 3 emissions.
- Total scope 1&2 GHG emissions have decreased in line with a fall in carbon footprint and asset allocation.
- Scope 3 emissions have also decreased due to the fall in asset allocation. However, the scope 3 carbon footprint has increased, primarily due to an improvement in data coverage.

Private Credit

- Data coverage has decreased for scope 1&2. This is as a result of an improvement in methodology, whereby this year, the analysis for private and sovereign assets held in the fund were taken into consideration, whereas previously only public assets were considered for the carbon metrics analysis.
- Scope 1&2 emissions have decreased in line with the fall in data coverage.
- On the other hand, an additional manager was able to report on scope 3 emissions this year, leading to an increase in total scope 3 emissions.

Hedge Fund

- This year, Hedge Fund A has seen an increase in carbon footprint caused by a change in the leverage exposure. Total emissions have also increased in line with the increase in carbon footprint and asset allocation.
- For Hedge Fund B, the carbon footprint has increased in line with improvements in data coverage, however total emissions have fallen due to a decrease in the asset allocation.

Property

- There has been an increase in emissions primarily due to an improvement in data coverage.

Global Equity

- There has been an increase in total emissions primarily due to increased asset allocation. The slight decrease in data coverage is as a result of changes in the underlying funds.

LDI

- The LDI portfolio contains mainly UK government bonds. Carbon metrics for UK government bonds are based on the total GHG emissions for the whole of the UK, which are extremely high. By contrast, carbon emissions for equities, for example, are based on the emissions associated with the underlying companies invested in, which are smaller. Hence, the carbon metrics for LDI are higher than other assets.
- Scope 3 GHG emissions relate to indirect emissions linked to the wider supply chain and activities of an organisation from outside its own operations for example, from the goods it purchases to the disposal of the products it sells. The nature of scope 3 GHG emissions makes them more complex to collect and report on, often resulting in higher levels of estimation compared to scope 1&2 GHG emissions. Scope 3 GHG emissions are currently not applicable to LDI assets because there is no industry-wide agreed methodology applicable to calculate scope 3 GHG emissions for sovereign assets.

Binary Target Measurement ("BTM")

Asset class	Allocation (%)	Year	Portion of the portfolio with net zero or Paris aligned targets	Proportion of assets for which data was available
Fixed Income	30.1%	2025	19%	74%
	33.5%	*2024*	*13%*	*71%*
Private Credit	7.7%	2025	<1%	42%
	7.2%	2024	*1%*	*68%*
Hedge Fund	4.6%	2025	0%	54%
	5.6%	*2024*	*0%*	*15%*
Property	2.5%	2025	47%	42%
	2.1%	*2024*	*47%*	*37%*
Global Equity	2.4%	2025	51%	100%
	1.1%	*2024*	*51%*	*100%*

Source: Investment managers / Aon. Data as at 31 December 2024 unless specified otherwise.

Commentary

The table above shows the percentage of underlying portfolio investments with a declared net-zero or Paris-aligned target or are already net-zero or Paris-aligned.

Overall, the proportion of the Fund's assets with net-zero aligned targets has improved or is in line with last year.

Notes on the data

In general, we relied on information provided by the Fund's investment managers about their greenhouse gas emissions. Our adviser, Aon aggregated this information to calculate the metrics for the Fund's portfolio of assets.

The exception to this is the metrics for the LDI; see *Appendix 4 Additional information on metrics calculations* for more information.

Availability of data:

- Nine out of 14 funds include scopes 1, 2 and 3 GHG emissions.
- Five out of 14 funds include scopes 1 and 2 only.
- Five fixed income managers, one private credit manager, one property manager and the global equity manager provided SBTi alignment data.
- This year we have asked the managers to provide data on Implied Temperature Rise ("ITR") but we received limited information hence this has been excluded from the report.
- Private Equity managers were excluded from the carbon data analysis on material grounds.

Aon did not make estimates for missing data.

Due to some data not being available we expect the reported emissions metrics do not include all the Fund's GHG emissions. And so, the metrics show the Fund's GHG emissions to be lower than they really are.

We expect that in the future better information will be available from managers and this improvement will be reflected in the coming years' reporting. We plan to engage with our managers that were unable to supply emissions data to communicate our expectations for future reporting.

How we collected the carbon data

Our investment adviser, Aon, collected the carbon emissions data from our managers on our behalf using the industry standard Carbon Emissions Template ("CET"). The CET was developed by a joint industry initiative of the Pension and Life Savings Association, the Association of British Insurers and Investment Association Working Group. The CET seeks to provides a standardised set of data to help pension schemes meet their climate reporting obligations.

Looking to the future
Our climate-related target

Climate-related targets help us track our efforts to manage the Fund's climate change risk exposure.

In the first year of reporting, we agreed to report against a target for improving the data coverage metric. Without meaningful emissions data from our investment managers, it is very hard for us to measure the Fund's climate-risk exposure. So, it is important to set a target to improve the coverage of GHG emissions data from the investment managers.

2027 Target

Based on the observation of data quality (measured by data coverage) in the first TCFD report, we agreed to set the following data coverage target for the Fund's assets, split by asset class over the next five years (scopes 1&2, using data as at 31 December 2021 as the baseline):

The Trustee has set a target for improving the data coverage metric over the next 5 years, to improve the quality of GHG emissions data from managers. The Trustee will initially focus on coverage of data, with the targets outlined in the table below.

Trustee update

Each year we review the suitability of the target we have set. Based on the data collected and the metrics calculated this year, we believe the Trustee should set a new target.

Our progress towards the current data quality target

Asset class	Actual coverage (as at 31 Dec 2021)	Actual coverage (as at 31 Dec 2022)	Actual coverage (as at 31 Dec 2023)	Actual coverage (as at 31 Dec 2024)	Target coverage (as at 31 Dec 2027)
Equity	99%	99%	100%	98%	100%
Fixed income and hedge funds	60%	61%	73%	81%	80%
Private Credit	11%	66%	68%	42%	70%
LDI	n/a	100%	100%	100%	70%
Property	0%	37%	37%	42%	40%

Source: Investment managers/Aon.
Base year: 31 December 2021

Notes in relation to the target data coverage:

- The data coverage targets have been set to collate carbon emission data across scopes 1 and 2.
- The Trustee considered setting a target covering the scope 3 emissions, however, determined this was not appropriate due to the

significant uncertainties with scope 3 data. The Trustee may reconsider this decision in future.

- The Fund's performance against the target will be measured and reported on every year. Over time, this will show the Fund's progress against the target.

Observations

- The Trustee has met the targets set for Fixed Income and Hedge Fund, LDI, and Property.
- For LDI, the methodology used to calculate carbon metrics has changed since the base year, where data coverage is now 100% estimated.
- There has been a slight decrease in the data coverage for Equity, this is due to a change in the underlying funds. However, the data coverage is in line with meeting the target set.
- The data coverage for Private Credit has decreased significantly, this is primarily due to evolving methodologies described earlier in the report.

Additional new target

The Trustee believes the original target, which focuses on improving the data coverage metrics for carbon emissions data across scopes 1 and 2 by 2027, has been met or is close to being achieved. The Trustee will continue to monitor the progress made on data coverage.

The Trustee has chosen to set a new target for 2030, with respect to the proportion of the portfolio with net zero or Paris aligned targets for Fixed Income, Property, and Global Equity.

Sovereign Bonds, Hedge Funds, and Private Credit have been excluded from this target, as this metric is not available to track effectively due to the nature of the underlying investments. The Trustee will continue monitoring this going forward.

Asset Class	Portion of the portfolio with net zero or Paris aligned targets as at 31 Dec 2024	Portion of the portfolio with net zero or Paris aligned targets by 31 Dec 2030
Fixed Income*	19%	35%
Property	47%	65%
Global Equity	51%	70%

*Excluding Sovereign Bonds

Steps we are taking to reach the target.

To continue to progress towards our target, we plan take the following steps:

Increasing mandate coverage of data	Improving the portion of the portfolio with net zero or Paris aligned targets
	
Observation The coverage of data for Fixed Income and Hedge Funds, and Property has improved. The coverage for LDI, and Equity has remained broadly in line with last year. Whereas the data coverage for Private Credit has reduced from last year.	**Observation** The portion of the Fixed Income with net zero or Paris aligned targets is below 20%.
Solution The Trustee will engage with its investment managers, supported by FPFIM, to request higher data availability and coverage for the private credit mandates. Through engagement, identify opportunities to improve coverage, or investigate alternative sources of data. In addition to engagement undertaken, the Trustee expects that improvement in data availability and reporting will in part be dependent on improved industry methodologies to calculate carbon metrics, including increased regulatory requirements for reporting carbon metrics.	**Solution** With support from FPFIM, will be considering ways to engage with the managers to improve the portion of the portfolio that is net zero or Paris aligned. However, it recognises that due to complexity of this metric, the data is difficult to obtain for all asset classes. With that in mind we will focus on improving data coverage for BTM for the asset classes which this metric is applicable for.

Appendices

Please see the appendices for additional information about our climate disclosures report.

01 Glossary

Governance refers to the system by which an organisation is directed and controlled in the interests of shareholders and other stakeholders.[1] 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.[2]

Strategy 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.[3]

Risk management 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.[4]

Climate-related risk 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-related 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.[5]

Climate-related opportunity 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.[6]

Value chain 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).[7]

Net zero 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.[8]

[1] A. Cadbury, Report of the Committee on the Financial Aspects of Corporate Governance, London, 1992.

[2] OECD, G20/OECD Principles of Corporate Governance, OECD Publishing, Paris, 2015.

[3] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017

[4] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017

[5] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017

[6] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017

[7] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017

[8] Energy Saving Trust, What is net zero and how can we get there? - Energy Saving Trust, October 2021

02 Climate risk categories

Climate-related risks are categorised into physical and transition risks. Below are examples of transition and physical risks.

Transition risks

Transition risks are those related to the ability of an organisation to adapt to the changes required to reduce greenhouse gas emissions and transition to renewable energy. Within transition risks, there are four key areas: policy and legal, technological innovation, market changes, and reputational risk.

Policy and legal

Examples
Increased pricing of GHG emissions
Enhanced emissions-reporting obligations
Regulation of existing products and services

Potential financial impacts
Increased operating costs (e.g. higher compliance costs, increased insurance premiums)
Write-offs, asset impairment and early retirement of existing assets due to policy changes

Technology

Examples
Cost to transition to lower emissions technology
Unsuccessful investments in new technologies

Potential financial impacts
Write-offs and early retirement of existing assets
Capital investments in technology development
Costs to adopt new practices and processes

Market

Examples
Changing customer behaviour
Uncertainty in market signals
Increased cost of raw materials

Potential financial impacts
Reduced demand for goods and services due to shift in consumer preferences.
Abrupt and unexpected increases in energy costs.
Re-pricing of assets (e.g., fossil fuel reserves, land valuations, securities valuations).

Reputational

Examples
Stigmatisation of sector
Increased stakeholder concern or negative stakeholder feedback

Potential financial impacts
Reduced revenue from decreased demand for goods and services.
Reduced revenue from decreased production capacity

Physical Risks

Physical risks refer to the physical impacts of climate change on a firm's operations. They directly impact a firm's ability to perform its function due to climate disruption. They fall into two subcategories: acute and chronic. Acute risks are extreme climate events, and chronic risks are trends that appear over time.

Acute

Examples
Extreme heat
Extreme rainfall
Floods
Droughts

Chronic

Examples
Water stress
Sea level rises
Land degradation
Variability in temperature

03 Modelling assumptions

The climate scenarios were developed by Aon and are based on detailed assumptions. They are only illustrative and are subject to considerable uncertainty. They consider the exposure of the Fund to climate-related risks and the approximate impact on asset/liability values over the long-term.

The purpose of the model is to consider the long-term exposure of the Fund to climate-related risks and the pattern of asset returns 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 model assumes a deterministic projection of assets and liabilities on the Technical Provisions basis, using standard actuarial techniques to discount and project expected cashflows.

i. 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 the Trustee to truly assess the sensitivities of the assets and liabilities to changes in interest and inflation rates.

ii. The parameters in the model vary deterministically for each scenario.

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 needed to make a decision on the contributions payable or investment strategy.

The model intends to illustrate the climate-related risks the Fund 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 Fund 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 (as at 30 June 2023); the model may propose different solutions for the same strategy under different market conditions.

04 Additional information on the metrics calculations

Where possible we use the industry standard methodologies for calculating metrics. There currently is no industry-wide standard for calculating metrics for some assets, and different managers may use different methods and assumptions.

These issues are common across the industry and highlight the importance of climate reporting to improve transparency. We expect that in the future better information will be available from managers as the industry aligns to expectations and best practice standards.

The carbon metrics for non-LDI asset classes

Emissions data was collected from the managers using the CET[9]. Managers provided carbon footprint and data coverage for their fund(s).

Aon calculated the total GHG emissions for each fund as follows:

> *carbon footprint x £m Plan assets invested in the fund x data coverage.*

Where necessary Aon aggregated the carbon metrics for each asset class. The methodology used for aggregating did not make any assumptions about the carbon emissions for assets for which data was unavailable. The aggregation methodology is as set out below:

$$carbon\ footprint\ for\ the\ asset\ class = \frac{\sum Gi}{\sum(Ai \times Ci)}$$

Where i is each fund in the asset class

G_i = Total GHG for fund i (tCO_2e)

A_i = Assets invested in fund i (£M)

C_i = Data Coverage of fund i (%)

The carbon metrics for LDI

Emissions associated with LDI includes both physical emissions (emissions associated with physical assets that are held within the portfolio) and synthetic emissions (emissions associated with the notional exposure to government bonds gained through derivatives).The Scheme/Plan's LDI manager(s) provided the value of the physical and synthetic government bond exposures.

[9] https://www.plsa.co.uk/Policy-and-Research/Document-library/Carbon-Emissions-Template

The carbon footprint was calculated by Aon as follows:

$$\frac{\textit{UK national emissions scopes 1 and 2}}{\textit{PPP-adjusted GDP}}$$

Where UK national emissions scopes 1 and 2 as at 31 December 2022 as reported by the Emissions Database for Global Atmospheric Research; and PPP (Purchasing Power Parity)-adjusted GDP as at 31 December 2022 as reported by the Organization for Economic Cooperation and Development.

Total GHG emissions for LDI was estimated for physical and synthetic exposures as follows:

£m of Plan's physical exposure x carbon footprint x data coverage

£m of Plan's synthetic exposure x carbon footprint x data coverage

Where data coverage is assumed to be 100% estimated.

Binary target measurement

Aon requested the binary target measurement of each fund from the investment managers and aggregated the results based on the portion of assets invested in each fund.

Aon does not make any estimates for missing data. The Scheme/Plan's binary target measurement only represents the portion of the portfolio for which we have data.

Currently, there is no standard approach for calculating binary target measurement for government bonds. Hence there is no binary target measurement for the LDI assets (or other government bonds in the portfolio).

05 GHG emissions

Greenhouse gases in the atmosphere 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 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[10] 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. So, emissions are expressed as a carbon dioxide equivalent (CO_2e). This enables the different gases to be compared on a like-for-like bases, relative to one unit of carbon dioxide.

Six main greenhouse gases identified by the Kyoto Protocol

CO_2
Carbon dioxide

CH_4
Methane

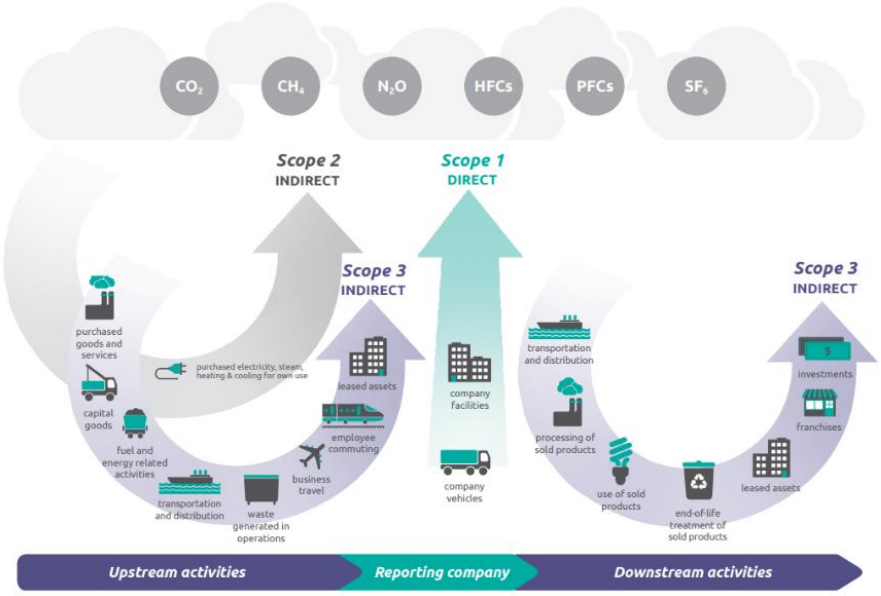
N_2O
Nitrous oxide

HFCs
Hydrofluorocarbons

PFCs
Perfluorocarbons

SF_6
Sulphur hexafluoride

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

[10] https://unfccc.int/kyoto_protocol