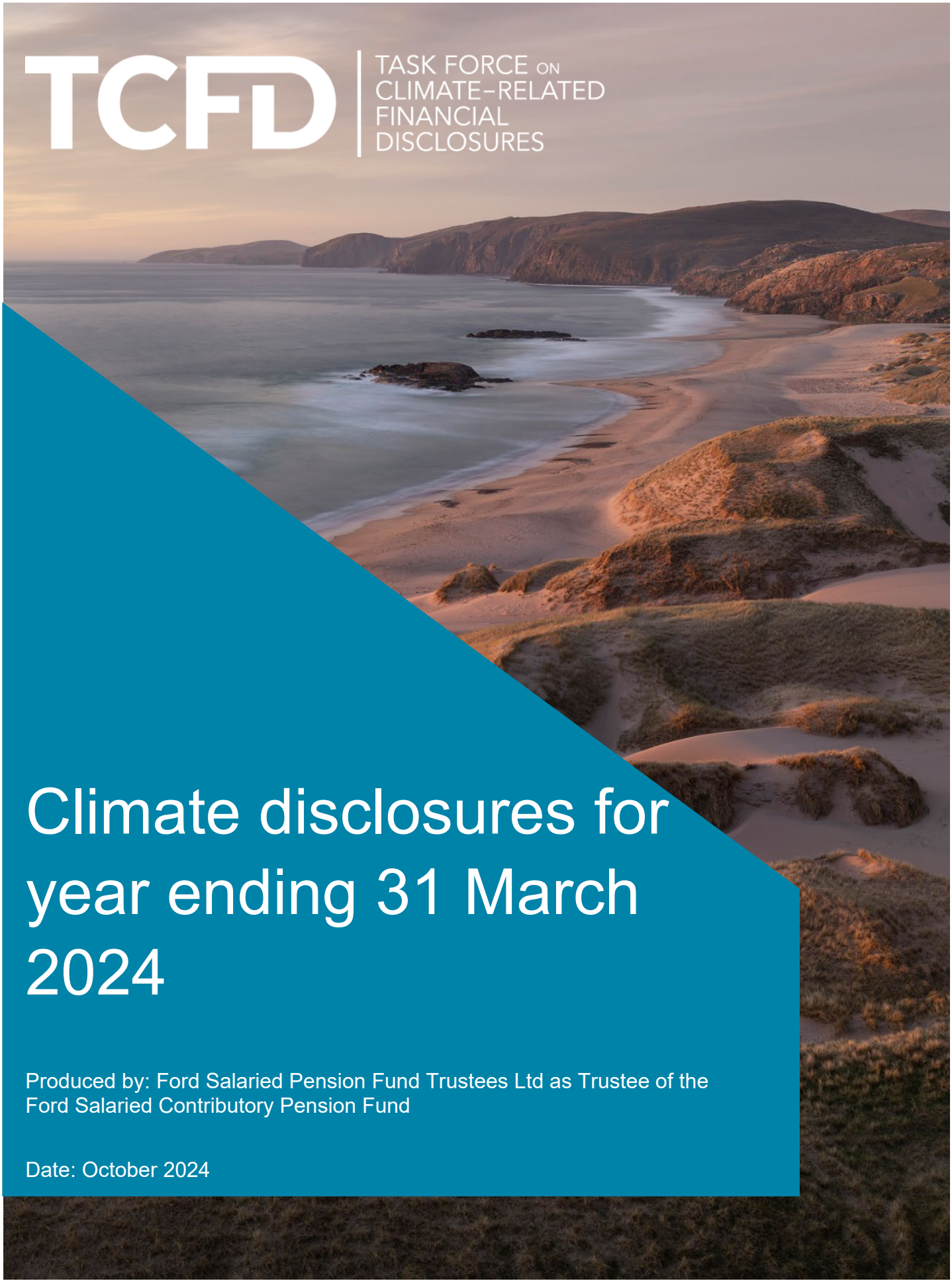

Climate disclosures for year ending 31 March 2024

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

Date: October 2024

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 Salaried 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 to meet climate governance requirements and publish an annual report on their pension Fund's climate-related risks. The regulations require trustees to report in-line with the recommendations of the Taskforce on Climate-related Financial Disclosure ("TCFD").

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 lead to more 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 2024. The four elements covered in the report are:

1) **Governance:** The Fund's governance around climate-related risks and opportunities.

2) **Strategy:** The potential impacts of climate-related risks and opportunities on the Fund's strategy and financial planning.

3) **Risk Management:** The processes used to identify, assess and manage climate-related risks.

4) **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 Salaried 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").

What is TCFD?

The Financial Stability Board created the Taskforce on Climate-related Financial Disclosure ("TCFD") to develop recommendations on the types of information that entities should disclose to support investors, to assess and price risks related to climate change.

The TCFD has developed a framework to help companies and other organisations, including pension schemes, more effectively disclose climate-related risks and opportunities through their existing reporting processes.

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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 Fund's wider risk management framework.

- Our Climate Risk Management framework is set out on pages 22-24, 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 environmental, social, and governance ("ESG") factors, including climate change, may impact the Fund's assets and liabilities. Details of training that the Trustee has undertaken throughout the Fund's reporting year are included in the Governance and Risk Management Sections.

Metrics and Targets

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

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

We have also set the following targets for the Fund:

- Improve the data quality for the Fund's assets, split by asset class by 2027.

We reviewed the metrics and the targets, and we believe they remain appropriate.

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

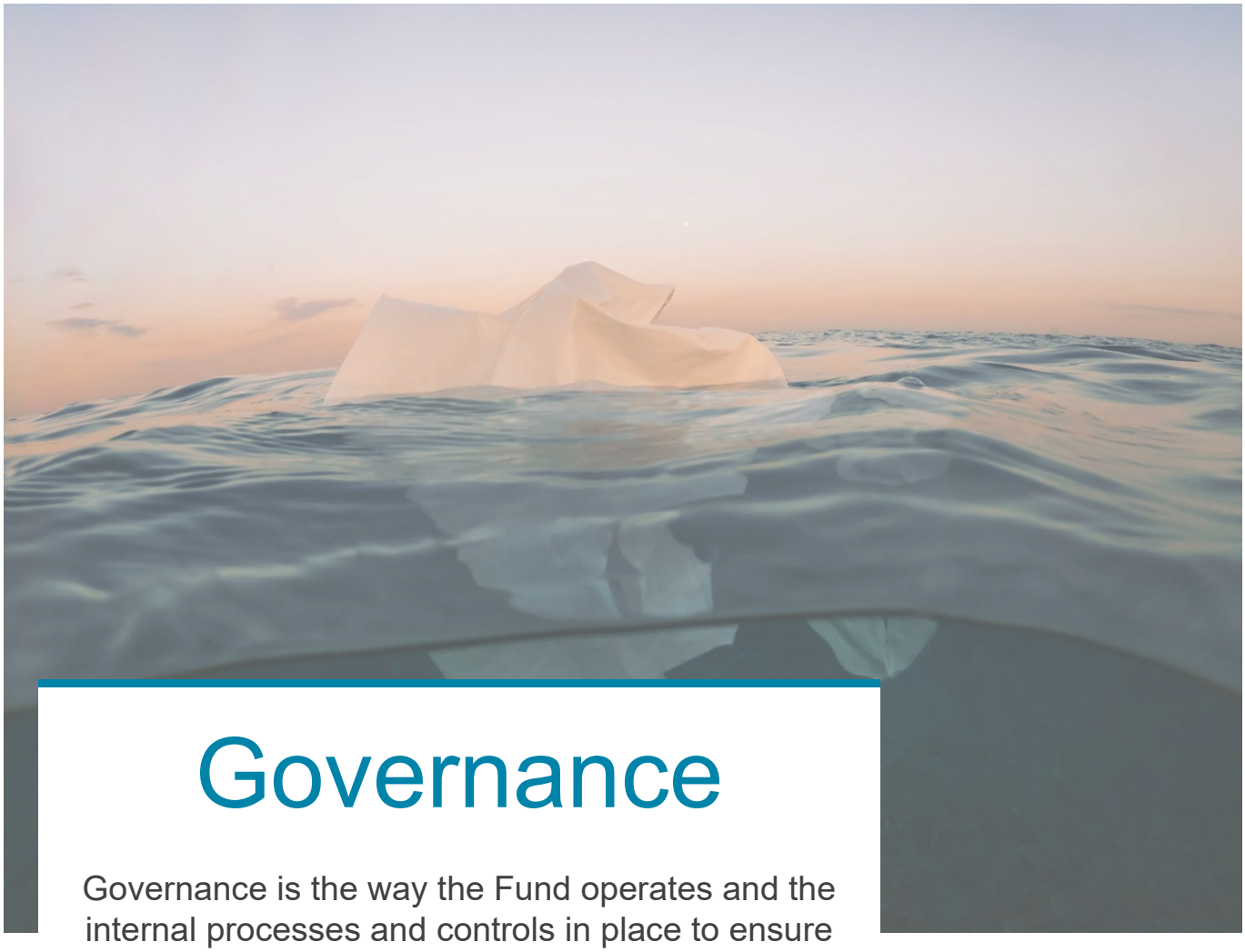
The Trustee notes that achieving positive outcomes on pooled arrangements, in which the Fund invests, may be beyond the Trustee's control.

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 of the Trustee

on behalf of the Trustee of the Ford Salaried 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 triennially.

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 horizons for the Fund is follows:

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

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.

Trustee's update

Over the year, the Trustee reflected on the progress it has made to date regarding its TCFD disclosures.

The progress included the completion of two prior TCFD reports. The Trustee dedicated specific time to work through feedback from the Pensions Regulator ("TPR"), and inclusion of scope 3 emissions and binary target measurement ("BTM") additional metrics during its second-year reporting period.

The Trustee continues to align its TCFD disclosures with the latest available TPR's feedback and observations at the time of writing.

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, and
- 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 delegated as 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 were gaps in data has been identified to be able to improve disclosures.

How we work with our advisers

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.

Scheme Actuary - the Scheme Actuary, helps us assess the potential impact of climate-related risks on the Fund's funding where relevant. This includes clarity to aid our understanding how climate-related factors affect the assumptions used for the Fund.

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

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.

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?

Each year we carry out a qualitative risk 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 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.

- Changes were noted for Fixed Income, due to one of the managers being unable to provide a quantitative assessment. It was however, able to provide some qualitative information which we were able to incorporate into our analysis of the climate-related risks. This is reflected in the assessment below.
- 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.
- The Global Equity manager did provide a response, however the Climate Impact Assessment report shared did not include all the information requested, nor in the format requested. The information provided includes detailed assessments of climate related risks (transition and physical). The assessment is however, limited in relation to mitigation of these risks, opportunities and how this changes over the short, medium and long term.
- One of the Hedge Fund managers, similar to last year, has not been able to provide a quantitative assessment of the climate-related risks for the Fund's TCFD disclosures. However, the manager was able to provide some qualitative information which was taken into account when forming the below analysis.

Trustee's update

In 2023, 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 no 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
Strategic Allocation	46.3%	35.4%	7.1%	5.6%	2.4%	2.1%	1.1%

Asset allocations as at 31 December 2023. Totals may not sum to 100% due to rounding.

How the risk assessment works

Risk categories

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

Ratings

The analysis uses a RAG rating system where:

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

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

Green denotes a low 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 is:

- short term: 1-3 years.
- medium term: 4-10 years
- long term: 11+ years

More details in relation to transition and physical risks can be found in the Appendix.

Key conclusions

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

Overall, the climate-related risks and opportunities identified for the Fund are broadly in line with those that were identified last year.

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 holds some risk, specifically in relation to physical climate risks. The static nature of property investments presents a risk to the Fund, particularly 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 following tables summarise the transition and physical risks for each asset class the Fund is invested in.

Liability Driven Investments (LDI) – 46.3% of portfolio

Physical Risks

	Acute	Chronic
Short	G	G
Medium	G	G
Long	G	G

Source: investment managers

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 – 35.4% of portfolio

Physical Risks

	Acute	Chronic
Short	G	G
Medium	G	G
Long	A	A

Source: investment managers

Over the long term, the Fund's fixed income managers see an increase in risk due to more frequent occurrences in weather events, such as flooding, which hold more risk in certain geographies of the Fund's investments.

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 – 7.1% 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

Source: investment managers

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	G	G
Medium	A	G	G	G
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.

Hedge Funds – 5.6% of portfolio

The Fund invests in two 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

Source: investment managers

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 – 2.1% of portfolio

Physical Risks

	Acute	Chronic
Short	A	G
Medium	A	G
Long	A	A

Source: investment managers

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.

Climate-related opportunities

We have identified some climate-related opportunities which may be suitable for the Fund, and 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.

Fixed Income

Clean transportation, renewable energy, pollution prevention

Hedge Funds

Health & Wellness, energy transition, global empowerment

Property

Demand for green building from tenants and investors, sufficient capital expenditure on existing assets, renewable energy (e.g. rooftop solar panels)

LDI

Clean transportation, renewable energy, energy efficiency, pollution prevention, living and natural resources, green gilts

Source: Managers

How resilient is the Fund to climate change?

Last year 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. 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.

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 are 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 Fund/members face. Other risks include covenant risk, longevity risk, timing of member options, basis risks 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 interim years. 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 are comfortable that the analysis remains appropriate for this year's report.

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Details of the climate scenarios we chose to analyse are set out in the table below.

Scenario	Scenario description
Base Case	Emission reductions start now and continue in a measured way in line with the objectives of the Paris Agreement and the UK government's legally binding commitment to reduce emissions in the UK to net zero by 2050.
No Transition	No further action is taken to reduce greenhouse gas ("GHG") emissions leading to significant global warming.
Disorderly Transition	Limited action is taken and insufficient consideration is given to sustainable long term policies to manage global warming effectively
Orderly Transition	Immediate and coordinated action to tackle climate change is taken using carbon taxes and environmental regulation.

Source: Aon.

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.

Impact on the funding level - key conclusions

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.

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.

No Transition Scenario

Temperature rise
+4ºC

Reach net-zero
After 2050

Environmental regulation
None

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:
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.

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:
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.

Orderly Scenario

Temperature rise
1.3°C - 2°C

Reach net-zero
2050

Environmental regulation
Coordinated

Summary of the Scenario

In the short term:
Immediate coordinated global action is taken to tackle climate change. Risky 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:
The rapid transition to clean technologies and green regulation begins to boost economic growth. This represents the fastest transition to a green economy, combined with limited physical impacts from climate change despite the large initial transition cost.

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.

Disorderly Scenario

Temperature rise
<3°C

Reach net-zero
After 2050

Environmental regulation
Late and Aggressive

Summary of the Scenario

In the short term:
Insufficient consideration 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 a drag on risk assets

In the long term:
After the costly implementation to tackle climate change and the resulting drag on risky assets, the transition to clean technologies and green regulation begins to boost economic growth when considering the very 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 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.

Source: Aon. Scenario projections as at 30 June 2023 on Technical Provisions Basis

Modelling limitations

Please refer to the appendix for further details in relation to the assumptions used for the scenario analysis and its limitations.

Potential impact on the sponsoring employer

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.

A key risk identified from the 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 on 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 process for identifying and assessing climate-related risks

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 framework and is how we monitor the most significant risks to the Fund in our efforts to achieve appropriate outcomes for members.

Qualitative assessment

The first element is a qualitative assessment of climate-related risks and opportunities which is prepared by our investment adviser and reviewed by us.

Quantitative analysis

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

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

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

Trustee update

This process of identifying and assessing climate related risks has been reviewed in the process of producing this TCFD report and we believe it is still suitable.

Our process for managing climate related risks

We recognise the long-term risks posed by climate change and have taken steps to integrate climate-related risks into the Fund's risk management framework.

We have developed a risk management framework to manage climate-related risk and opportunities. The risk management framework clearly sets out who is involved, what is done and how often. We have delegated a number of key tasks to different committees but retain the final responsibility. The processes for managing climate-related risks and opportunities are summarised in the tables below.

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 climate training from our advisers to ensure we are comfortable with climate change and the potential financial impact it may have within the Fund's investment strategy and funding position.

Strategy

Activity	Delegated responsibility	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 years' analysis remained appropriate. Details can be found within the Strategy section.

Risk management

Activity	Delegated responsibility	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.

We carry out qualitative assessment of climate risks and quantitative climate scenario analysis, which combined help us to focus on the risks that pose the most significant impact.

Metrics and Targets

Activity	Delegated responsibility	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. 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.

In addition, the Trustee has reviewed its target, which was set previously, and considered any refinements required to this. More details can be found in the metrics and targets section.

Assessing our managers

To assess our managers, we asked them 10 questions designed by the Pensions Climate Risk Industry Group[1] ("PCRIG") to help trustees to assess their investment managers' capabilities to manage climate-related risks. The questions cover a range of issues including the manager's approach to climate management, 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

This year, the Trustee chose to only include the material managers of the Fund within its analysis.

There was good engagement from the managers with most of them completing the requested questionnaire (nine out of 10). The outstanding manager did provide some information, but this did not cover the information requested as outlined by PCRIG to help Trustees assess their managers' capabilities to manage climate-related risks.

TCFD reporting: Eight managers produce TCFD aligned reports (previously only five), and majority of the managers committed to providing us with GHG emissions data for this report.

Industry initiatives and wider engagement: All nine managers who responded, participate in industry initiatives such as the Net Zero Asset Manager Initiative, Climate Action 100+, Institutional Investors Group on Climate Change, United Nations' Principles of Responsible Investment and Science Based Targets Initiative.

Scenario analysis: Seven managers carry out climate-related risk analysis (previously only five), but most of them incorporate ESG considerations into their investment processes.

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.

[1] Aligning your pension scheme with the Taskforce on Climate-Related Financial Disclosures recommendations - GOV.UK (www.gov.uk)

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 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 our first year of TCFD reporting, we decided what metrics to annually report on. These are described below. This year the Trustee reviewed the metrics and believes the metrics continue to be suitable for the Trustee 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 the Trustee has high quality data for (i.e., data which is based on verified, reported, or reasonably estimated emissions, versus that which is unavailable).

This has been selected on the basis that it provides a consistent and comparable measure of the level of confidence in the data.

The Trustee has not made any estimates where data is unavailable.

Portion of the portfolio with net zero, or Paris-aligned targets

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 underlying portfolio investments with a declared net-zero or Paris-aligned target or are already net-zero or Paris-aligned.

The table below presents the climate-related metrics for the Fund's assets. The metrics are shown separately for the different asset classes as opposed to aggregating, this is due to different underlying methodologies.

The carbon metrics

			Data coverage (%)		Total GHG emissions (tCO_2e)		Carbon footprint (tCO_2e/£m)	
Asset class	**%**		Scopes 1 & 2	Scope 3	Scopes 1 & 2	Scope 3	Scopes 1 & 2	Scope 3
Fixed Income	**35.4**	**2024**	**71.3%**	**53.6%**	**155,957**	**290,797**	**122.3**	**303.5**
	35.2	*2023*	*60.4%*	*27.3%*	*98,268*	*221,106*	*89.1*	*443.5*
Private Credit	**7.1**	**2024**	**67.5%**	**11.5%**	**36,112**	**16,533**	**149.6**	**401.4**
	6.5	*2023*	*65.7%*	*0.0%*	*32,691*	-	*148.4*	-
Hedge Fund	**5.6**	**2024**	**-**	**-**	**-**	**-**	**-**	**-**
	5.3	*2023*	-	-	-	-	-	-
Hedge Fund A - Long Position[1]	2.6	2024	61%	61%	5,969	33,955	40.1	226.2
	2.5	*2023*	*99.8%*	*100.0%*	*58,873*	-	*366.4*	
Hedge Fund A - Short Position[1]		2024	61%	61%	2,562	17,693	30.6	211.3
		2023	*99.8%*	*100.0%*	*37,635*	-	*234.3*	
Hedge Fund B	3.0	2024	40.8%	0.0%	3,636	-	58.4	-
	2.8	*2023*	*37.4%*	*0.0%*	*3,344*	-	*61.5*	
Property	**2.1**	**2024**	**36.7%**	**0.0%**	**1,007**	**-**	**25.8**	**-**
	1.9	*2023*[2]	36.8%	0.0%	915	-	*24.0*	-
Global Equity	**1.1**	***2024***	**99.7%**	**99.7%**	**3,578**	**34,219**	**65.4**	**625.4**
	1.7	*2023*	*99.0%*	*99.0%*	*17,368*	*62,967*	198.1	*718.0*
LDI	**46.3**	**2024**	**100.0%**	**0.0%**	**508,668**	**-**	**170.2**	**-**
	46.8	*2023*	-	-	-	-	-	-
LDI Fund A	*24.2*	*2023*	*100.0%*	*0.0%*	*164,808*	-	*164.4*	
LDI Fund B	*22.6*	*2023*	*100.0%*	*0.0%*	*180,000*	-	*160.0*	

Source: Investment managers / Aon. Data as at 31 December 2023 unless specified otherwise.
[1]The 2023 figures include Scopes 1, 2 and 3 combined.
[2]Please note that upon reviewing the 2023 figures for the Property fund, the Trustee has received some further clarification from the manager and has revised these figures.

Commentary

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

Fixed Income

- There has been an increase in the total scope 1&2, and scope 3 emissions, this is driven by an improvement in the data coverage.

Private Credit

- Total emissions have increased in line with the increase in asset allocation, carbon footprint and data coverage.
- This year, one of the private credit managers was also able to provide scope 3 data versus none last year. The nature of scope 3 data makes them more complex to collect and report on, therefore, the data coverage is significantly lower than that of scope 1&2 emissions.

Hedge Fund

- This year, the manager for Hedge Fund A was able to split out scope 3 emissions from scope 1&2 emissions, as a result the figures from 2023 are not directly comparable.
- Total emissions for Hedge Fund B have increased this is due to an improvement in data coverage.

Property

- There has been a slight increase in the total emissions due to the carbon footprint increasing.

Global Equity

- Total emissions have decreased, driven by a fall in the carbon footprint. The change in carbon footprint is largely due to clarification from the investment manager that the figures provided last year were at a fund level and was not pro-rated based on the Fund's ownership. As a result, limited conclusions can be drawn when comparing the year-on-year data metrics, as the methodologies are distinctly different.

LDI

- This year's carbon data for LDI is not directly comparable to the carbon data from last year due to changes in the methodology of calculating climate-related metrics for this asset class. The Trustee's Investment Consultant collected the physical and synthetic split from the Scheme's LDI manager. The carbon footprint was calculated using UK GHG Emissions and Purchasing Power Parity ("PPP") adjusted Gross Domestic Product ("GDP") and assumes data coverage to be 100%. There is currently no industry agreed standard for calculating LDI emissions. The Trustee's Investment Consultant therefore calculates the carbon footprint to ensure consistency across managers and reporting. This will allow for better comparisons between similar pension schemes in the future.
- 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 is applicable to calculate scope 3 GHG emissions for sovereigns assets.

Binary target measurement ("BTM")

The table below shows the available BTM data for the Fund across the applicable asset classes. This shows the percentage of the portfolio with net zero or Paris aligned targets.

Asset class	%		Portion of the portfolio with net zero or Paris aligned targets	Proportion of assets for which data was available
Fixed Income	35.4	2024	14%	71%
		2023	*14%*	*60.4%*
Private Credit	7.1	2024	1%	68%
		2023	-	-
Hedge Fund	5.6	2024	0%	15%
		2023	-	-
Property	2.1	2024	47%	37%
		2023	*41%*	*36.8%*
Global Equity	1.1%	2024	51%	100%
		2023	*23%*	*99.0%*

Source: Investment managers / Aon. Data as at 31 December 2023 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 excluding fixed income.

Notes and limitations on the metrics data

FPFIM, supported by our investment adviser, Aon, collected information from all the Fund's material investment managers on their GHG emissions. Aon collated this information to calculate the following climate-related metrics for the Fund's portfolio of assets.

The private equity managers were excluded from the analysis based on materiality grounds.

Availability of data

- Seven out of 14 funds include scopes 1, 2 and 3 GHG emissions.
- Seven 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.
  - Most investment managers were unable to report on the Binary Target Measurement (i.e., the portion of the portfolio with a Net Zero or Paris Aligned target).

Aon did not make any estimates for missing data.

Because not all the Fund's managers were able to provide all the requested data, 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 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 provides a standardised set of data to help pension schemes meet their obligations under the Climate Change Governance and Reporting Regulations, and associated DWP Statutory Guidance.

Notes on the metrics calculations

There isn't an industry-wide standard for calculating some of these metrics yet 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

Aon collected carbon metrics from managers before aggregating by asset class. The methodology used for this aggregation does not make any assumptions about the carbon emissions for assets for which data was unavailable. The aggregation methodology is as set out below:

G = A x C x F
G = Total GHG expressed as (tCO2e).
A = Assets expressed in £ Millions.
C = Data Coverage expressed as a decimal between 0 and 1.
F = Carbon Footprint expressed as (tCO2e/£M invested).

The methodology used follows the industry-standard best-practice established within the Carbon Emissions Template ("CET")[2].

LDI

Aon collected the physical and synthetic split from the Scheme's LDI manager. The carbon footprint was calculated using UK GHG Emissions and PPP adjusted GDP and assumes data coverage to be 100%. There is currently no industry agreed standard for calculating LDI emissions. Aon therefore calculates to ensure consistency across managers and reporting.

Portion of the portfolio with net-zero or Paris aligned targets

Aon 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.

Aon does not make any estimates for missing data. The Fund'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.

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

Looking to the future
Our climate-related target

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

In the first year of reporting, we agreed to report against a target for improving the data quality 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 quality of GHG emissions data from the investment managers.

2023 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.

2024 Update

In the third year of reporting, there has been an improvement in the coverage of data provided by the Fixed Income and Private Credit managers.

Whilst the target focuses on scopes 1&2 data, this year there has also been an increase in the number of managers that were able to provide scope 3 data, along with an improvement in the quality of the scope 3 data provided.

Progress against target (scopes 1&2)

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

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

As a result of the collection of data for the third-year reporting period, data coverage varied across the asset classes in which the Fund invests.

Suitability of target

The Trustee believes the original target, which focuses on improving the data quality metrics for carbon emissions data across scopes 1 and 2 by 2027, remains suitable.

What is the Trustee doing to reach the target?

The Trustee is taking the following steps to reach the target:

Increasing mandate coverage of data	Making the reporting consistent
1	2
Observation The coverage of data for equity mandates was previously greater versus other assets (such as fixed income or property).	**Observation** Reporting of data was in some cases provided relative to USD and in other cases relative to GBP.
Solution The Trustee will engage with its investment managers, supported by FPFIM, to request higher data availability and coverage for the fixed income 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 obtain data in the most consistent way possible. However, it recognises that different underlying data vendors may be required depending on the asset classes. With that in mind we will focus on obtaining data in a consistent way for each asset class.

Appendices

Glossary

Governance	refers to the system by which an organisation is directed and controlled in the interests of shareholders and other stakeholders.[3] 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.[4]
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.[5]
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.[6]
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.[7]
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.[8]

[3] A. Cadbury, Report of the Committee on the Financial Aspects of Corporate Governance, London, 1992.
[4] OECD, G20/OECD Principles of Corporate Governance, OECD Publishing, Paris, 2015.
[5] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017
[6] Please refer to the link in reference number 10.
[7] Please refer to the link in reference number 10.
[8] Please refer to the link in reference number 10.

Greenhouse gas emissions scope levels[9]	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.[10]
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).[11]
Climate scenario analysis	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.[12]
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.[13]

[9] World Resources Institute and World Business Council for Sustainable Development, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition), March 2004.
[10] PCC, Climate Change 2014 Mitigation of Climate Change, Cambridge University Press, 2014.
[11] TCFD, Recommendations of the Task Force on Climate-related Financial Disclosures, 2017
[12] Please refer to the link in reference number 16.
[13] Energy Saving Trust, What is net zero and how can we get there? - Energy Saving Trust, October 2021

Appendix – Climate scenario modelling assumptions

The climate scenarios were developed by our investment adviser, 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.

Appendix – An explanation of climate risk categories

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

Transition risks

Transition risks are those related 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 (e.g., delayed planning approvals, supply chain interruptions)

Reduced revenue from negative impacts on workforce management and planning

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 referring to extreme climate events such as flooding and wildfires, and chronic referring to trends over time such as an increase in temperature or ocean acidification.

Acute	Chronic
Examples	**Examples**
Extreme heat	Water stress
Extreme rainfall	Sea level rises
Floods	Land degradation
Droughts	Variability in temperature
Storms (e.g., hurricanes)	Variability in precipitation

Appendix – Greenhouse gas emissions in more detail

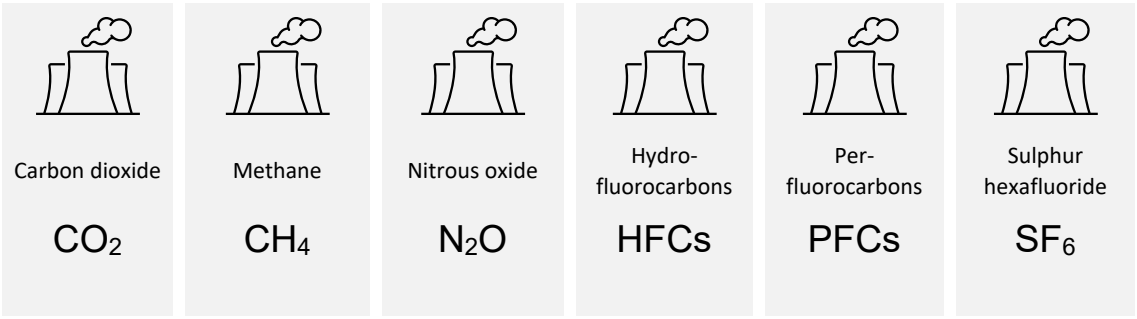
Greenhouse gases in the atmosphere, including water vapour, carbon dioxide, methane, and nitrous oxide, keep the Earth's surface and atmosphere warm because they absorb sunlight and re-emit it as heat in all directions including back down to Earth. Adding more greenhouse gases to the atmosphere makes 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[14] 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_2e). This enables the different gases to be compared on a like-for-like bases, relative to one unit of carbon dioxide.

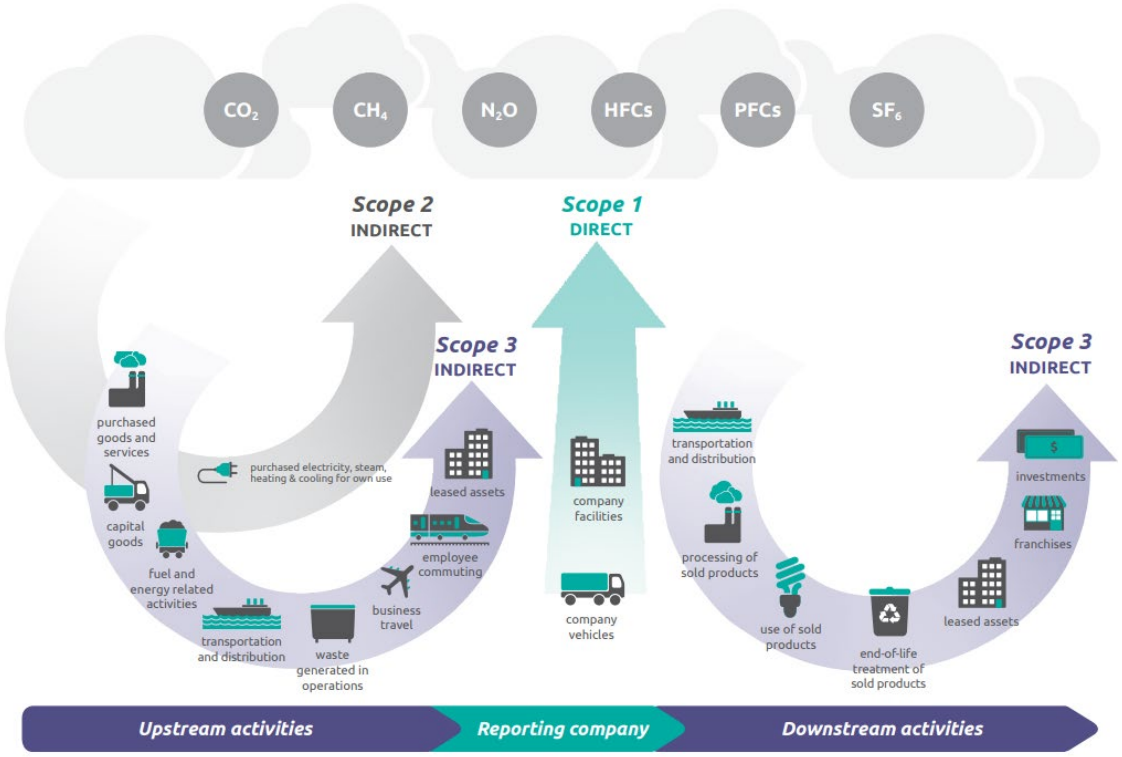
Six main greenhouse gases identified by the Kyoto Protocol



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

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