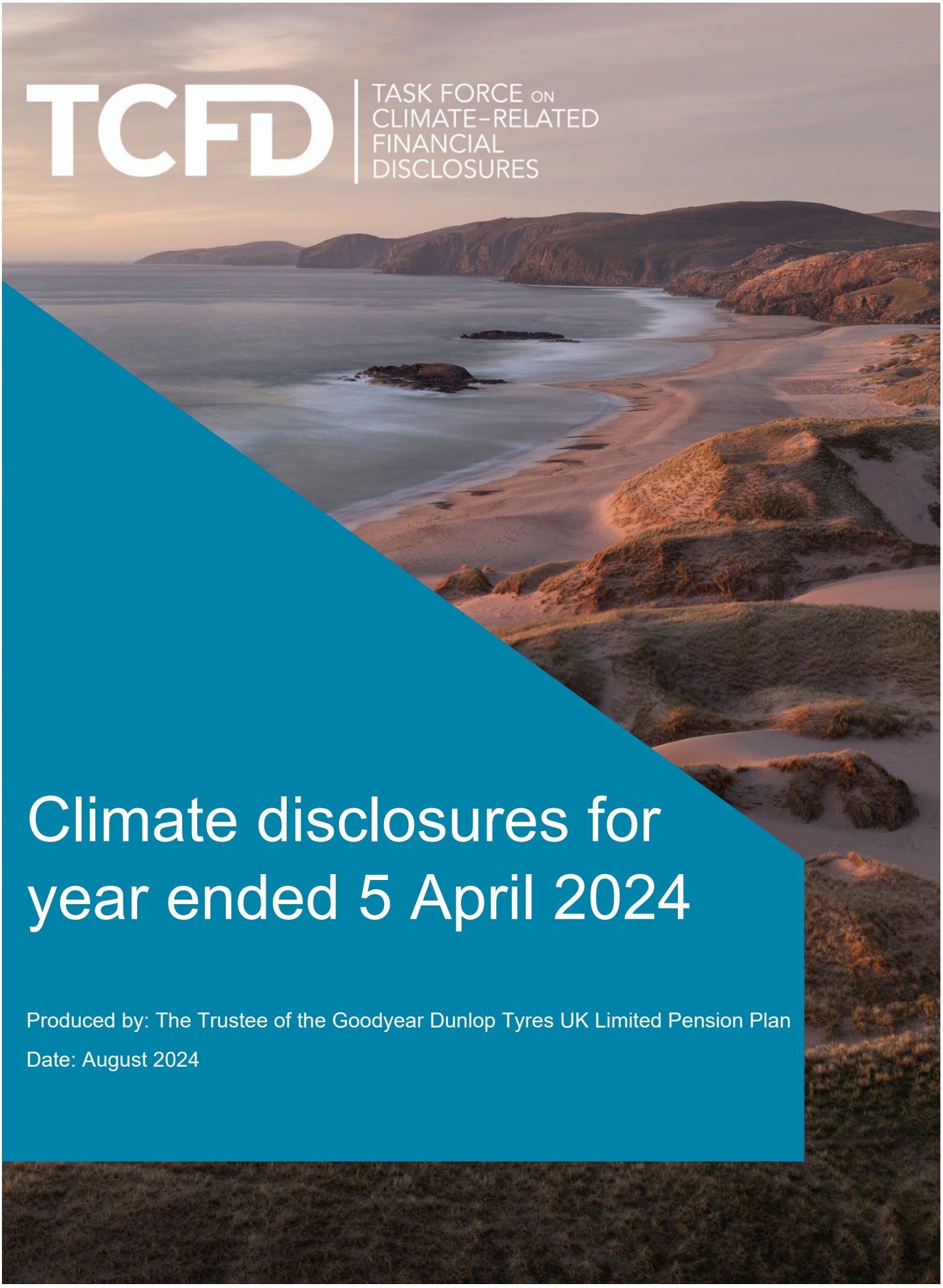
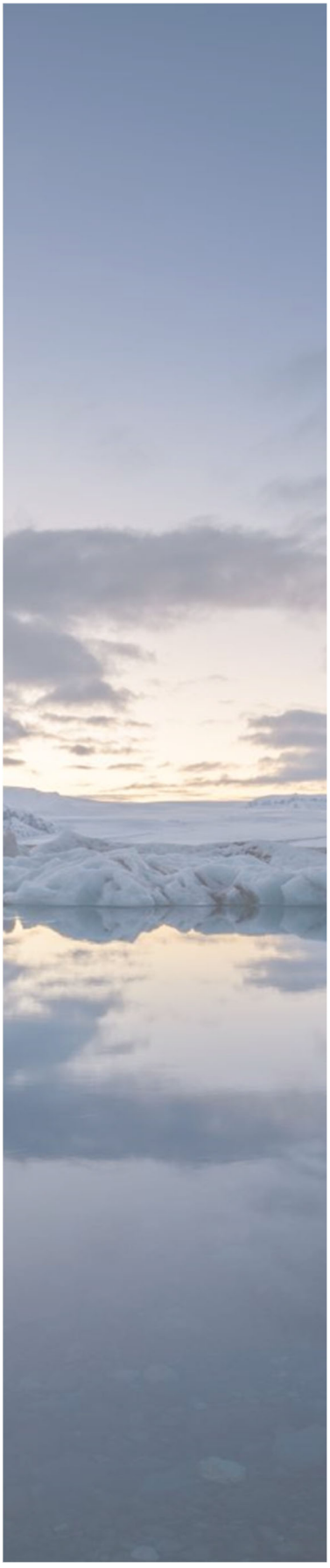


Climate disclosures for year ended 5 April 2024

Produced by: The Trustee of the Goodyear Dunlop Tyres UK Limited Pension Plan

Date: August 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 Goodyear Dunlop Tyres UK Limited Pension Plan's 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 Goodyear Dunlop Tyres UK Limited Pension Plan (the "Plan") for the year ended 5 April 2024. We, the Trustee, have been supported by our investment adviser, Aon Investments Limited ("Aon"), in producing the TCFD report.

The four elements covered in the report are:

Governance:	The Plan's governance around climate-related risks and opportunities.
Strategy:	The potential impacts of climate-related risks and opportunities on the Plan'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 Goodyear Dunlop Tyres UK (Pension 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") and is aligned to the Taskforce for Climate-related Financial Disclosures ("TCFD") framework.

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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 Plan.

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

Overview of the Plan

The Plan is a relatively mature Defined Benefit ("DB") Pension Plan and does not include a Defined Contribution section.

The Plan invests across two main asset classes, Return-seeking Bonds and Liability Driven Investment ("LDI" via UK Government Bonds, also known as "gilts"), and within this report we consider the impact of climate-related risks on those asset classes, the investment strategy and potential impact on the funding of the Plan.

We have been supported by our investment adviser, Aon Investments Limited ("Aon"), in producing the TCFD report.

Governance – *see p5 onwards for further detail*

- We, the Trustee, are ultimately responsible for the oversight of all strategic matters relating to the Plan, this includes climate-related risks and opportunities.

Strategy – *see p8 onwards for further detail*

- Our qualitative analysis of climate-related risks and opportunities showed that the asset classes in which the Plan invests are impacted to some degree by climate-related risks, but that there is good resilience overall.
- We have also identified numerous investment opportunities for the different asset classes.
- We undertook climate scenario analysis in preparation for our first disclosure under the TCFD framework (year ended 5 April 2023), which showed the Plan has a reasonable degree of resilience relative to climate-related risks. The resilience was primarily driven by the de-risking previously undertaken in the Plan's assets and the liability hedging in place. Even under severe downside scenarios, the Plan's gilts + 0% funding level is still expected to remain above 100%, albeit with higher volatility. We assessed this analysis as applicable to our current reporting period.

Risk Management – *see p22 onwards for further detail*

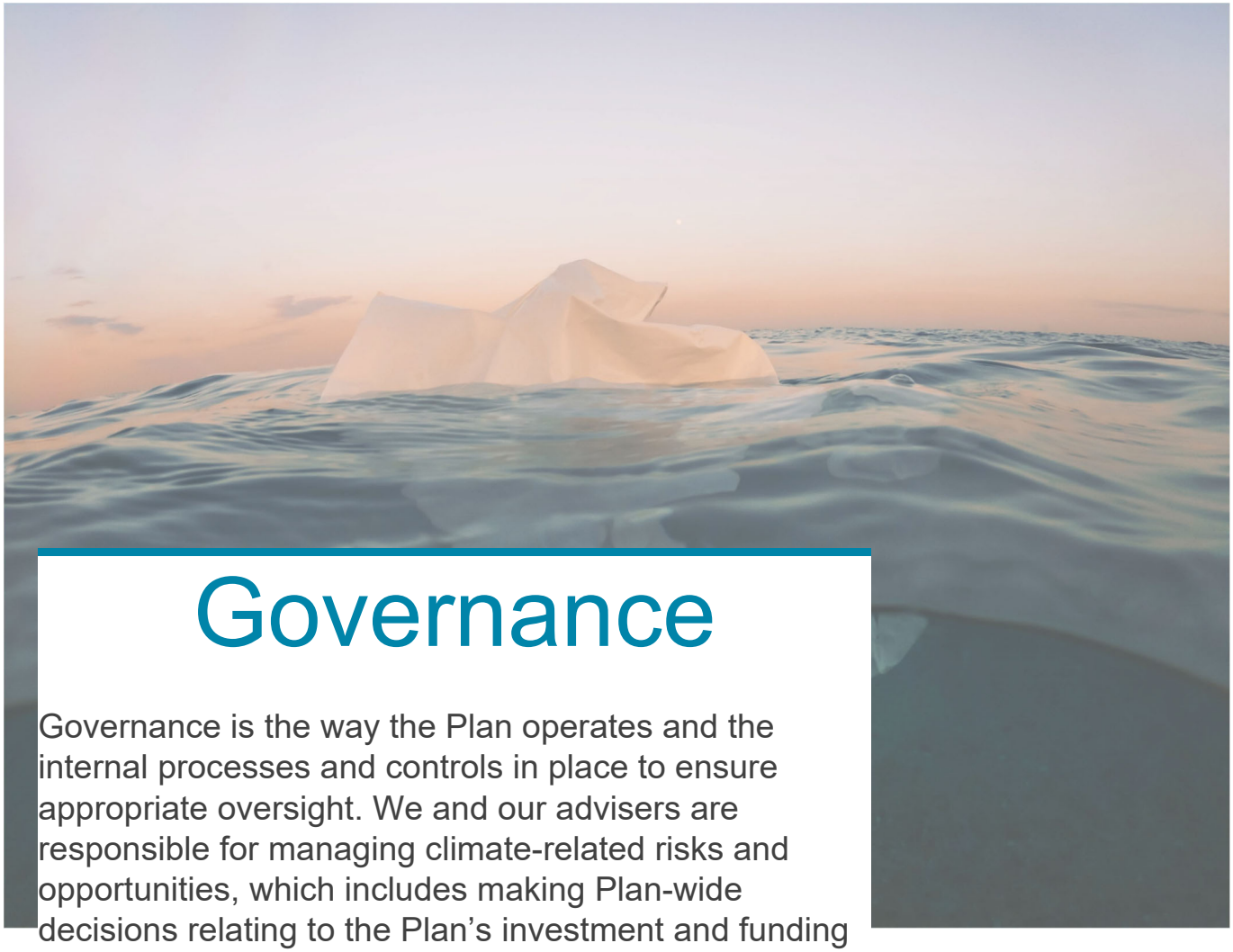
- We have established a process to identify, assess and manage the climate-related risks and opportunities the Plan is exposed to. This is integrated into the Plan's wider risk management framework.
- Our Climate Risk Management framework is set out on pages 24-27, which assists with the ongoing management of climate-related risks and opportunities. Alongside this, we undertake periodic training on responsible investment to understand how environmental, social and governance ("ESG") factors, including climate change, may impact the Plan's assets and liabilities.
- We are comfortable with the Plan's investment managers (Insight and AIL) ability to act in the best interests of the Plan and to account for climate-related risks and opportunities in the portfolios that they manage.

Metrics and Targets – *see p28 onwards for further detail*

- We have gathered the climate-related metrics data from our managers. As required, we have, as far as we have been able, collated the data for four metrics:
  - Total Greenhouse Gas ("GHG") Emissions;
  - Carbon Footprint;
  - Data Coverage; and
  - Binary Target Measurement.
- We are keen to understand the carbon emissions in the Plan's portfolio, but note that at the current time, and similar to last year, data is limited – particularly for our allocation to Return-seeking Bonds. We expect that in the future, better information will be available as the industry aligns to expectations and best practice standards.
- We have set two data coverage targets for the Plan's assets:
  - Achieve 100% data coverage for Insight LDI; and
  - Achieve over 75% data coverage for AIL Return-seeking Bonds.
- During this year's reporting, the 100% data coverage for the Insight LDI mandate was achieved, in line with last year, whilst the data coverage for Return-seeking Bonds improved from 41% to 45% year-on-year. Through ongoing engagement with the managers and the development of best practice approaches to carbon emissions reporting, we expect to see a greater rate of improvement in the data coverage in future.
- We believe the targets set in the first year of reporting remain appropriate.

Following completion of the report, we are reassured that the various analysis showed that the potential financial impact of climate change on the Plan is not thought to be significant. We have spent considerable time and effort to monitor the TCFD framework and will continue to monitor the potential impacts of climate change on the Plan.

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



Governance

Governance is the way the Plan operates and the internal processes and controls in place to ensure appropriate oversight. We and our advisers are responsible for managing climate-related risks and opportunities, which includes making Plan-wide decisions relating to the Plan's investment and funding strategy, as well as the ability of the sponsoring employer to support the Plan.

Our Plan's governance

As the Trustee of the Plan, we are ultimately collectively responsible for overseeing all strategic matters related to the Plan. This includes approval of the governance and management frameworks relating to ESG considerations and climate-related risks and opportunities.

We have discussed and agreed our overarching approach to the management of climate change risk. Details are set out in the Statement of Investment Principles ("SIP") and are reviewed and (re)approved as appropriate by the Board.

Our climate beliefs

We believe that climate-related factors are one of a number of important factors to be accounted for within investment decision-making. This is because the risks and opportunities associated with climate change may impact the Plan in both a positive and negative manner within a relevant timeframe.

Therefore, where possible, and appropriately aligned with our strategic objectives and fiduciary duty, we will proactively seek to mitigate these risks and capture such opportunities through our investment portfolio.

We receive training – as part of discharging our obligations, when a specific need is identified– on climate-related issues to ensure that we have the appropriate degree of knowledge and understanding on these issues to support good decision-making. We expect our advisers to bring important and relevant climate-related issues and developments to our attention in a timely manner.

In producing the Plan's first TCFD-aligned report last year, we have previously delegated day-to-day responsibility for the initial implementation of the Plan's framework relating to climate-related risks and opportunities, to the TCFD sub-committee. With the framework now established and the Plan's first report published, the TCFD sub-committee is now disbanded, we are now responsible for monitoring any material climate-related developments through regular updates from our advisers going forward.

Trustee update

We considered the appropriateness of our climate-related governance structure, including the TCFD Sub-Committee. We took the decision to disband the Sub-Committee following the establishment of the climate-related risk management framework last year.

Our Return-seeking bonds investment manager undertook a number of climate-related activities throughout the year. This included the production of its own TCFD report, conducting manager engagements, and progressing against its net zero target; these activities are in line with our climate beliefs.

Role of the Trustee's Advisers

- **Investment adviser:** Our investment adviser, Aon, provides strategic and practical support in respect of the management of climate-related risks and opportunities, and ensuring compliance with the recommendations set out by the TCFD. This includes provision of regular training and updates on climate-related issues and climate change scenario modelling, this enables us to assess the Plan's exposure to climate-related risks.
- **Plan Actuary:** The Plan Actuary, as required, will help to assess the potential impact of climate change risk on the Plan's funding assumptions.
- **Covenant adviser:** From time-to-time we may obtain covenant advice from a specialist covenant adviser. We expect the covenant adviser to help it understand the potential impact of climate change risk on the sponsor covenant of the principal (Goodyear Tyres UK Limited) and participating employers of the Plan, as required.

Trustee update

We requested Scope 3 emissions data from our investment managers to follow the additional requirement under the TCFD framework as part of its second annual disclosures. We have been supported in this exercise by our investment adviser.

This information (Scope 3 emissions) was unavailable, at the time of our request.

Strategy

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

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

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

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

To help us with our assessment, we surveyed our investment managers asking them to rate the climate-related risks and opportunities they believe their funds are exposed to.

Our investments

The Plan's investment portfolio consists of both return-seeking assets and risk-reducing assets.

The Plan invests its return-seeking assets in a fund managed by Aon Investments Limited ("AIL"). The fund is AIL's Return-seeking Bonds Fund which invests in a range of underlying investment vehicles. The Trustee delegates the ongoing monitoring of the underlying managers to AIL.

The Plan's risk-reducing assets are managed by Insight and the Trustee maintains arrangements with that manager directly.

The strategic asset allocation is as follows:

Asset Class	LDI	Return-seeking Bonds
Strategic Allocation	73.5%	26.5%

As at 31 December 2023.

Trustee update

This year we modified our approach when asking the Plan's underlying managers to complete the strategy questionnaire.

Given both of our investment managers responded to the questionnaire last year, this year they were asked if any material changes had taken place.

How the 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.

Ratings

The LDI mandate and Return-seeking Bond fund base case analysis uses an absolute 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.

The Plan's Return-seeking Bond manager measures risk exposure in climate transition scenarios relative to its base case – consistent with the scenarios analysis on pages 16 – 21 – where:
Red denotes a higher level of financial exposure to a risk compared to the base case.

Amber denotes a similar level of financial exposure to a risk compared to the base case.

Green denotes a lower level of financial exposure to a risk compared to the base case.

Time horizons

We have assessed the climate-related risks and opportunities over multiple time horizons. We have decided that the most appropriate time horizons for the Plan are:

short term: 1-3 years
medium term: 3-5 years
long term: 5-10 years

However, we recognise that the Plan could be subject to much longer-term risks if the Plan's liabilities are not secured within this time period.

When deciding the relevant time horizons, we have considered the liabilities of the Plan and its obligations to pay benefits.

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

Climate-related risk assessment

We have completed a best endeavours exercise to analyse the climate-related risks of the Plan's LDI (Insight) and Return-seeking Bonds (AIL) mandates.

The Plan's long-term time horizon is relatively short (compared to many other UK pension schemes), reflecting the fact the Plan is relatively mature and does not include a Defined Contribution section. As a result, there is no difference between the managers' climate-related risk assessments of the medium and long-term time horizons. For simplicity, these have therefore been combined into one row, Medium / Long (3 - 10 years) time periods.

This year, we were able to obtain more granular information from our investment managers for the assessment. This has allowed us to better map the risks faced over our chosen time periods and provide additional detail.

The following tables summarise the risk perception of physical and transition risks for the two managers. We are comfortable that the Plan's managers have a good understanding of climate-related risks.

Insight LDI

Time Horizon	Physical Risks		Transition Risks			
	Acute	Chronic	Policy & Legal	Technology	Market	Reputation
Short-term	Green	Green	Green	Green	Green	Green
Medium/Long term	Green	Green	Green	Green	Green	Green

Source: Investment Manager. Data as at 31 December 2023.

The investment manager outlined that 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.

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 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. It is not expected to be vulnerable to some of the most severe physical risks and it has a robust credit rating and history which should give it the ability to issue further debt in its own currency to refinance existing debt positions.

AIL Return-seeking Bonds

Base Case

Time Horizon	Sovereign bonds		Corporate bonds		
	Developed markets	Emerging market	Investment Grade	High Yield	Asset backed securities
Short term	Amber	Amber	Amber	Amber	Green
Medium/long term	Amber	Amber	Amber	Amber	Amber

Source: Aon, Investment Manager. Data as at 31 December 2023.

The Base Case is based on Aon's Capital Market Assumptions which considers what is currently priced into the market. This includes some 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.

Orderly Transition

Time Horizon	Sovereign bonds		Corporate bonds		
	Developed markets	Emerging market	Investment Grade	High Yield	Asset backed securities
Short term	Red	Red	Red	Red	Red
Medium/long term	Amber	Green	Green	Green	Green

Source: Aon, Investment Manager. Data as at 31 December 2023.
Note: all ratings shown relative to the base case.

In the Orderly Transition scenario, there is immediate, coordinated action to tackle climate change through the introduction of carbon taxes and environmental regulation. A high level of financial risk exposure is expected in the short-term across most asset classes due to the costs of the transition to a low carbon economy. Green policies and high levels of infrastructure investment in renewable energy technologies lead to the rapid development and take-up of green technology. The rapid transition to clean technologies and green regulation eventually boosts growth in the longer term. This all results in a trend from higher risk to lower risk over time.

No Transition

Time Horizon	Sovereign bonds		Corporate bonds		
	Developed markets	Emerging market	Investment Grade	High Yield	Asset backed securities
Short term	Green	Green	Green	Green	Amber
Medium/long term	Amber	Amber	Amber	Amber	Amber

Source: Aon, Investment Manager. Data as at 31 December 2023.
Note: all ratings shown relative to the base case.

In the No Transition scenario, no action is taken to tackle climate change throughout the modelling period leading to significant global warming and increased exposure to physical climate change risks. AIL expects low risk exposure across all asset classes in the short-term as the effects of climate change on global markets are relatively limited. The risks increase steadily over time as impacts from physical risks gradually become more severe. Climate change headwinds facing the economy and markets steadily grow, acting as an increasing drag on economic growth and risk asset returns. This results in a trend from lower risk to higher risk over time.

Disorderly Transition

	Sovereign bonds		Corporate bonds		
Time Horizon	Developed markets	Emerging market	Investment Grade	High Yield	Asset backed securities
Short term	Green	Green	Green	Green	Amber
Medium/long term	Green	Amber	Amber	Red	Red

Source: Aon, Investment Manager. Data as at 31 December 2023.
Note: all ratings shown relative to the base case.

In the Disorderly Transition scenario, action is delayed for nine years, limited action is taken, and insufficient consideration is given to long-term policies to manage global warming effectively. AIL expects low risk exposure across all asset classes in the short-term, as the effects of climate change on global markets are relatively limited. Risk increases in the medium- and long-term. Eventually action is taken to mitigate and adapt to global warming, but the late timing means it is less effective and more costly to implement. The introduction of environmental regulation is late (beginning in the medium-term) and aggressive, and companies are insufficiently prepared for the transition to a low carbon economy incurring high costs in the medium-term. Once the transition has occurred risks reduce in the very long-term.

Key conclusions

From this assessment we have a better understanding of the climate-related risks that the Plan is exposed to. In particular, we acknowledge that relative to Aon's base case scenario, the Plan's investments in the AIL Return-seeking Bonds strategy may be particularly exposed under an Orderly Transition scenario in the short term, and under No Transition and Disorderly Transition scenarios in the medium-long term.

However, as the Plan invests approximately a quarter of its assets in the AIL strategy (with the remainder invested in the Insight LDI strategy which is expected to be less exposed to climate risks), the impact on the Plan's total portfolio is expected to be less pronounced, compared to investing a higher percentage of the Plan's assets in the AIL strategy. In addition, AIL accounts for, and builds, climate-related risk mitigation into its investment risk management process. AIL invests across multiple underlying investment managers who it deems to be best-in-class. We believe this approach diversifies AIL's manager concentration risk and results in these risks being appropriately managed.

Overall, we are satisfied that both Insight and AIL engaged with the process and provided insightful commentary on and assessment of both physical and transition risks and no significant concerns were raised needing immediate action. We are also satisfied that both managers have sufficient processes in place to identify, assess and manage these risks, as applicable to the strategies they manage on our behalf. We will continue to engage with both managers to encourage them to support us in understanding climate risks effectively.

Climate-related opportunities

We recognise our commitment to seeking out climate-related opportunities. The Plan's investments in UK Government Bonds and Return-seeking Bonds may give rise to potential opportunities in the next few years, for the ultimate benefit of the Plan's members.

We have identified some climate-related opportunities which may be suitable for the Plan. These opportunities are valid over the short-, medium- and long-term time horizons:

LDI (via UK Government Bonds, also known as "gilts")	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. Insight, as the Plan's LDI manager, have discretion to utilise green gilts should they deem it optimal for the Plan's hedging portfolio.
Return-seeking Bonds	Opportunities exist within green bonds, companies who are currently transitioning (such as those who are setting Science-Based Targets), and companies which are focusing on generating revenue from climate change solutions. This includes companies with specialities in renewable energy, energy efficiency, electric vehicles and the circular economy. Many financial sector firms issue green bonds, which present a great opportunity for fixed income climate-related investment. Although climate solutions-oriented opportunities will be limited in low climate impact sectors, many companies can be enablers of the transition such as financing, technology and communications sectors.

Source: Investment Managers

How resilient is the Plan to climate change?

Last year we carried out a climate change scenario analysis to better understand the impact climate change could have on the Plan's assets and liabilities. This year, we have reviewed that analysis again which remains appropriate for inclusion in this year's report. In the rest of this section, we have therefore set out the climate scenarios analysis we undertook previously.

The analysis looks at three climate change scenarios. Each scenario considers what might happen when transitioning to a low carbon economy under different conditions.

We have chosen these scenarios because we believe that they provide a reasonable range of possible climate change outcomes. These scenarios were developed by Aon and are intended to characterise plausible outcomes for the transition to a low carbon economy. They are only illustrative and are subject to considerable uncertainty.

We established a "base case" scenario against which the three climate change scenarios are compared.

- The climate scenarios intend to illustrate the climate-related risks the Plan 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 plan faces. 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. This may be as a result of, but not limited to:

1. a significant/material change to the investment and/or funding strategy; or
2. 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 in our last report and we are comfortable that the analysis remains appropriate for this year's report.

Impact on the funding level

The analysis undertaken was based on the following strategic allocations.

Asset Class	LDI	Return-seeking Bonds
Strategic Allocation	73.5%	26.5%

Key conclusions

The Plan's investment portfolio exhibits resilience under all the climate scenarios modelled. This is driven by the de-risking previously undertaken in the Plan's assets and the liability hedging in place. Even under severe downside scenarios, the Plan's gilts + 0% funding level is still expected to remain above 100%, albeit with higher volatility.

Over the short term, the worst-case scenario for the Plan is the orderly transition, due to an orderly transition shock. In this scenario, there is immediate coordinated action to tackle climate change through the introduction of carbon taxes and environmental regulation. A high level of financial risk exposure is expected in the short-term across all asset classes (except cash) as companies seek to invest in climate transition solutions. As time continues, these risks reduce as companies are adequately prepared for the climate transition, and the transition to low carbon technologies. Therefore, the Plan recovers in the long-term and remains well-funded.

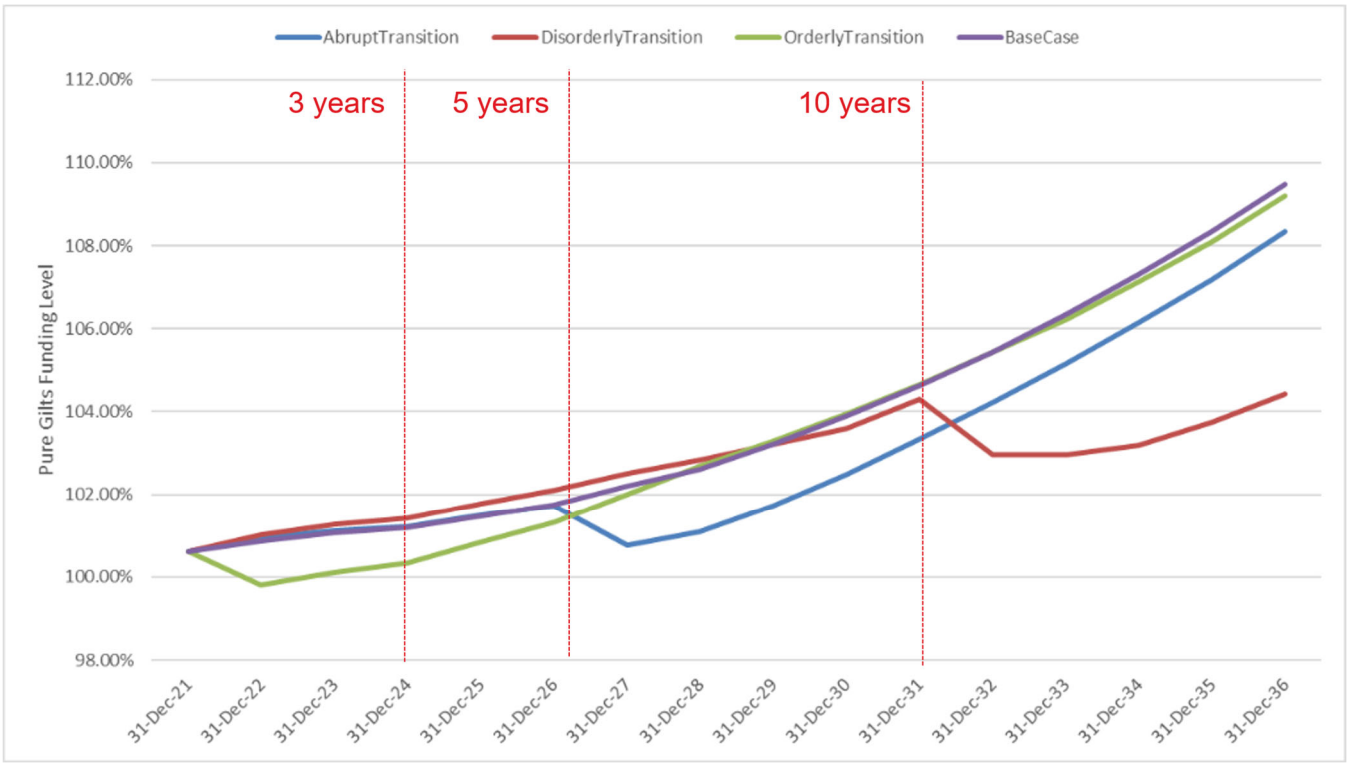
Over the long term, the worst-case scenario for the Plan is the disorderly transition. In this scenario, delayed and ineffective action to tackle climate change acts as a drag on the returns of risk assets due to the realisation that current levels of action are inadequate. There is a sharp decline in funding level after 10 years due to the disorderly shock, triggered by sudden policy implementations. There is some recovery to this shock. However, markets price in high levels of economic damage over the long-term and the irreversible loss of natural capital leads to a deteriorated funding level by the end of the modelling period.

Action taken following the scenario analysis

We have not taken any action as a result of the climate change scenario modelling, given that the Plan is expected to be resilient to climate change. While there are steps the Plan could take to reduce climate risk further going forward, we do not plan to make any changes to the Plan's current investment strategy as a result of this analysis, given the funding level resilience under each of the scenarios.

Impact on the funding level – Results analysis

Figure 1: Funding level projections graph



Source: Aon. Scenario projections as at 31 December 2021.

The outcome of the analysis is set out in the chart above.

The table below describes the climate scenarios we chose to model and the impact of each scenario on the Plan over the short-, medium- and long-term time horizons.

	Summary of the Scenario	Summary of the impact to the Plan
Base case Temperature rise +1.5ºC- 2.4ºC Reach net-zero 2050 Environmental regulation Uncoordinated	The Base Case is based on Aon's Capital Market Assumptions which considers what is currently priced into the market. This includes some climate-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.
Disorderly Scenario Temperature rise <4°C Reach net-zero after 2050	**In the short-term:** Insufficient consideration given to long-term policies and there is no action taken to combat climate change **In the medium/long-term:** Late but coordinated action is taken to tackle climate change. The late timing	**In the short-term:** The funding level gently increases, with an acceleration over time. **In the medium/long-term:** The funding level moves in line with the base case, gently increasing over the period.

Environmental regulation Late and Aggressive	means it is less effective and more costly to implement. Adverse impacts from climate change leads to a drag on risk assets	
Orderly Scenario Temperature rise <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/long-term:** The rapid transition to clean technologies and green regulation begins to boost economic growth.	Summary of the impact to the Plan **In the short-term:** The Plan suffers a minor deterioration in its funding level, dropping below the base case. **In the medium/long-term:** The funding position recovers following the initial fall in funding level and moves back in line with the base case.
Abrupt Scenario Temperature rise <2°C Reach net-zero 2050 Environmental regulation Aggressive	Summary of the Scenario **In the short-term:** Despite growing public awareness, material action is not undertaken to combat climate change. **In the medium/long-term:** Increasing effects of extreme weather lead to a rapid introduction of policies to tackle climate change. The delayed action leads to higher costs to tackle climate change and risky assets perform poorly as a result. The higher costs are the result for the economy being forced to transition away from fossil fuels.	Summary of the impact to the Plan **In the short-term:** The funding level gently increases, with an acceleration over time. **In the medium/long-term:** The funding level gently increases, before experiencing a sudden drop. This drop begins to recover moving back towards base case.

Source: Aon. Effective date of the impact assessment is 31 December 2021

Modelling limitations

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

Covenant Summary

Climate change can have significant implications for the strength of a given sponsor's covenant. The Plan is currently positioned with a healthy funding surplus and the Sponsor is not currently paying deficit repair contributions.

As part of preparing the Plan's TCFD disclosures, the Trustee reviewed the Goodyear Tire & Rubber Company's ("Goodyear's") 2023 Corporate Responsibility Report ("CRR")[1] and 2023TCFD Response[2] with the intention of identifying and assessing:

- the materiality of climate-related risks and opportunities to Goodyear;
- the main risks and opportunities for each time horizon; and
- Goodyear's resilience to different scenarios.

This review is relevant to the Plan as the relevant disclosures of Goodyear are representative of Goodyear Tyres UK Limited (the Plan's principal employer) as well as the wider industry.

Goodyear's corporate responsibility framework[3] outlines its high-priority environmental and social sustainability topics. This framework is split into four pillars: Sustainable Sourcing; Responsible Operations; Advanced Mobility; and Inspiring Culture. Climate is a high-priority sustainability topic, where Goodyear particularly wants to support decarbonization, adaptation and resilience.

Within the TCFD disclosures, 15 climate-related risks and opportunities were evaluated over the short-term (0-5 years), medium-term (5-10 years) and long-term (10-30 years) time horizon; the most material of which being relevant to the short- and medium-term periods.

Goodyear has conducted both qualitative scenario analysis and a quantitative financial impact assessment to understand the impact of climate-related risks and opportunities on its businesses, strategy, and financial planning. Going forward, Goodyear's intention is to integrate the identification and analysis of climate-related risks into risk management and other relevant global business processes.

In 2021, Goodyear announced its commitment to achieving net-zero value chain greenhouse gas ("GHG") emissions by 2050, aligned with the Science Based Targets initiative ("SBTi").

Conclusion

Climate-related risks and opportunities are a material consideration which, if left unmanaged, could have a detrimental impact on the covenant of the Plan's principal and sponsoring employers. The Trustee therefore believes that it is important for these risks to be monitored on an ongoing basis.

Based on the analysis published, the Plan's funding surplus and the lack of a need for deficit repair contributions, the Trustee expects the impact of climate-related risks on the covenant of both Goodyear and Goodyear Tyres (UK)

[1] Goodyear - 2023 Corporate Responsibility Report

[2] Goodyear Taskforce on Climate related Financial Disclosures (TCFD) Response 2023

[3] Goodyear's Corporate Responsibility framework, Goodyear Better Future

Limited to be low and is comfortable that reasonable steps are being taken to address these risks. The Trustee will continue to work with the Plan's principal and participating employers to ensure that covenant risks continue to be mitigated appropriately going forward.

Risk management

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

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 Plan. This is part of the Plan's wider risk management framework and is how we monitor the most significant risks to the Plan 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 advisers 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 advisers and reviewed by us.

Together these elements give us a clear picture of the climate-related risks that the Plan is exposed to. Where appropriate, we have distinguished 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 Plan.

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 Plan. 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 have updated it to better align with industry best practice.

Our climate risk management framework

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

We have a climate risk management framework to manage climate-related risks and opportunities. The climate risk management framework set out in the tables below clearly describes who is involved, what is done and how often. We delegate a number of key tasks to different entities but retain final approval responsibility.

Governance

Activity	Delegated responsibility	Adviser / supplier support	Frequency of review
Climate change governance framework *(this document)*	Trustee	Investment Adviser	Annual
Publish TCFD report and implementation statement	Trustee	Investment Adviser	Annual
Review adviser objectives to ensure advisers have appropriate climate capability, and bring important, relevant and timely climate-related issues to the Trustee's attention	Trustee	Advisers	Annual
Trustee training	Trustee	Advisers	Ongoing
Ensure investment proposals explicitly consider the impact of climate risks and opportunities, and seek investment opportunities	Trustee	Investment Adviser	Ongoing
Ensure that actuarial and covenant advice adequately incorporate climate-related risk factors where they are relevant and material	Trustee	Plan Actuary, Covenant adviser	Triennial
Engage with the investment managers to understand how climate risks are considered in their investment approach, and stewardship activities are being undertaken appropriately	Trustee	Fund Managers, Investment Adviser	Annual

Trustee update

We have monitored progress of the implementation of the climate change governance framework through the year, querying information as and when required.

Ahead of reviewing and approving this TCFD report, we received training at our 11 June Trustee meeting to ensure we are familiar with the potential financial impact that climate change may have on the Plan'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	Investment Adviser	Annual
Undertake quantitative scenario analysis to understand the impact of climate-related risks.	Trustee	Investment Adviser	Triennial (with annual review)
Actuarial valuation	Trustee	Plan Actuary	Triennial

Trustee update

We have dedicated time through the year to analyse climate-related risks and opportunities for the Plan's two asset classes in which it invests.

We undertook an annual review of the climate scenario analysis, this concluded that the analysis remained appropriate. Details can be found in 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.	Trustee	Advisers	Annual
Include consideration of climate-related risks in the Plan's other risk processes and documents, such as the risk register and the SIP, and regularly reviews these	Trustee	Advisers	Ongoing

Metrics and Targets

Activity	Delegated responsibility	Adviser / supplier support	Frequency of review
Obtain data for agreed metrics	Trustee	Investment Adviser, Investment Managers	Annual
Review continued appropriateness of metrics and climate-related targets	Trustee	Investment Adviser	Annual

Trustee update

We collect metrics data on an annual basis, in order to understand the current state of the portfolio regarding its emissions, data quality and portfolio alignment metric. This data is evaluated in order to produce a climate-related target.

Metrics collection has been carried out in line with industry practice and we have been supported by our advisers. As we prepare our second climate disclosures report, we are required to expand the carbon metrics to include Scope 3 emissions. In addition, we have reviewed the target, which was set previously, and any refinements required to this. Details of these can be found in the Metrics and Targets section of this report.

Assessing our managers

To assess our managers' abilities to manage climate-related risks, we asked them to complete:

- A due diligence questionnaire asking our investment managers to identify the most significant climate-related risks and opportunities affecting the Plan, and to quantify these risks as described on pages 10-14 of this report; and
- A risk management questionnaire including the 10 questions designed by the Pensions Climate Risk Industry Plan [4]. The questions cover a range of topics including the managers' 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. We summarise the key highlights of this questionnaire below.

Trustee update

This year we modified our approach when asking the Plan's underlying managers to complete the risk questionnaire. Given both of our investment managers responded to the questionnaire last year, this year they were asked if any material changes had taken place.

Key conclusions

- Both managers support TCFD, with Insight having completed their TCFD-aligned report and AIL working towards publishing their report in June 2024.
- The two managers participate in several industry initiatives such as the United Nations Principles for Responsible Investment ("UN PRI") and Science Based Targets Initiative ("SBTI").
- Both the managers carry out climate-related scenario analysis and incorporate ESG considerations into their investment processes.
- Both managers have set a Net Zero commitment and are aligned with the Paris Agreement.

Overall, the managers have adequate frameworks and processes in place to ensure they take into account climate-related risks and opportunities within their mandates. In addition, the managers are both participating in a number of industry initiatives.

We are comfortable with the managers' ability to act in the best interests of the Plan and to account for climate-related risks and opportunities in the portfolios that they manage.

[4] 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 Plan's climate-related risks. Quantitative measures of the Plan'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 Plan'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 Plan'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

Last year, we reported on Scope 1 and 2 emissions only. This year we are required to report Scope 3 emissions as well. 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 makes 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 annually report on. 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 Plan'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.

Binary target measurement

A metric which shows how much of the Plan'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 carbon metrics

The tables below show the climate-related metrics for the Plan's assets. The emissions are split into the growth and matching portfolios. The growth portfolio includes the sovereign and corporate emissions associated with the AIL Return-seeking Bonds fund. The matching portfolio includes the sovereign emissions associated with LDI.

Sovereign and corporate emissions are split for two reasons. The aggregation of these two emission classes may result in double counting, and the mixing of different emissions calculation methodologies. The carbon emissions for UK sovereigns are based on the total GHG emissions for the whole of the UK, which are extremely high. By contrast, carbon emissions for corporate fixed income, for example, are based on the emissions associated with the underlying companies invested in, which are smaller. Hence, the carbon emissions for sovereigns are higher than other assets.

Growth Portfolio					Scopes 1 & 2	
Asset class	**Year**		**£AUM**	**Data Coverage (%)**	**Total GHG emissions (tCO_2e)**	**Carbon footprint (tCO2e/£m)**
Return-seeking Bonds	2023	Corporate	179	32%	4,515	62
		Sovereign	46	97%	24,498	436
	2022	Corporate	337	41%	77,173	551
		Sovereign				

Source: Aon, Investment Manager.

Notes:

- 2023 data as at 31 December 2023.
- 2022 data as reported in the TCFD Report Y/E 05 April 2023.
- Assets have been split into corporates, sovereigns and LDI:
  - Corporates includes long financial instruments representing direct or indirect ownership of a debt or an equity issued by an actual issuer.
  - Sovereigns includes long investments to government, supranational and municipal bonds. Government-related derivatives are included in the calculations with no emissions reported.
- The corporate-sovereign split is not available for 2022.
- The AUM is shown for the value of the assets; however, the 2023 emissions data is calculated using the net present value ("NPV") of the long physical assets. Carbon metrics relating to derivative investments have been excluded. The DWP notes that methodologies for calculating metrics in relation to certain asset classes, particularly derivatives (such as repo and interest rate and inflation swaps), are not yet established. At this time, trustees are not expected to be able to readily calculate emissions associated with derivatives at the current time.
- Carbon footprint is measured in (tCO2e/GDPppp) for sovereigns.
- The aggregated Scopes 1 & 2 data coverage, for corporate and sovereigns, was 45%.
- Scope 3 emissions are not available, as climate-related metrics for this scope were not provided by AIL's data provider. The Trustee will engage with AIL to encourage improved reporting of scope 3 data going forward.
- The reduction in total Scopes 1 & 2 GHG emissions is attributed to a fall in carbon footprint and the amount invested in the fund.

The matching portfolio contains LDI. 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 sovereign bonds gained through derivatives).

Matching Portfolio				Scopes 1 & 2	
Asset class	**Year**	**£AUM**	**Data Coverage (%)**	**Total GHG emissions (tCO_2e)**	**Carbon footprint (tCO2e/£GDPm)**
LDI	2023	608	100%	153,331	170
	2022	912	100%	220,123	165

Source: Aon, Investment Manager.

Notes:

- 2023 emissions associated with LDI has been calculated from the following sources:
  - Physical-synthetic split as at 31 December 2023 from Insight.
  - UK national emissions as at 31 December 2022 from the Emissions Database for Global Atmospheric Research. The 2023 figure is currently unavailable.
  - PPP-adjusted GDP as at 31 December 2022 from the Organization for Economic Cooperation and Development. The 2023 figure is currently unavailable.
- 2022 data as reported in the TCFD Report Y/E 05 April 2023.
- The AUM is shown for the value of the assets; however, the emissions data is calculated using the net present value ("NPV") of the long physical assets. The DWP notes that methodologies for calculating metrics in relation to certain asset classes, particularly derivatives (such as repo and interest rate and inflation swaps), are not yet established. At this time, trustees are not expected to be able to readily calculate emissions associated with derivatives at the current time.
- Scope 3 emissions are not applicable to LDI.
- The reduction in total Scopes 1 & 2 GHG emissions is attributed to a fall in the amount invested in within the LDI portfolio.

Binary Target Measurement ("BTM")

The table overleaf shows the binary target measurement for the Plan's assets.

Last year, we reported a binary target measurement on our portfolio as part of our portfolio alignment metric to show the alignment of the assets to net-zero targets.

For consistency with last year's reporting, we also decided to report on the binary target measurement in this year's report. For the return-seeking bonds portfolio, the manager has reported an implied temperature rise metric (instead of a binary target measurement) for its own TCFD report, meaning the binary target measurement is not available for 2023. We have outlined our expectations for the manager to report the binary target measurement again in future.

We have also monitored the manager's implied temperature rise to ensure we continue to assess the progression of our managers. The reported implied temperature rise for the Return seeking Bonds portfolio was +2.4°C, as at 31 December 2023, compared to +2.6°C, as at 31 December 2022.

Asset class	Year	£AUM	Portion of portfolio with SBTi aligned target (%)
Return-seeking Bonds	2023	225	Not available
	2022	337	23%
LDI	2023	608	Not applicable
	2022	912	

Source: Aon, Investment Manager.

Notes:

- Data as at 31 December 2023.
- 2022 data as reported in the TCFD Report Y/E 05 April 2023.
- SBTi alignment is not applicable to LDI. The UK government has signed up to the Paris Agreement and thus committed to reaching net zero by 2050. Last year, as a result, the Trustee reported the binary target measurement for Goodyear's LDI portfolio being assumed as 100%. Following discussions with the Trustee's investment adviser, the Trustee understands there is no industry standard approach for calculating binary target measurements for government bonds. Hence, in this year's disclosures a binary target measurement for the LDI assets is not reported.

Notes on the metrics calculations

There is no 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")[5].

LDI

Aon collected the physical and synthetic split from the Plan's LDI manager. The carbon footprint was calculated using UK GHG Emissions and PPP adjusted GDP and assumes data coverage to be 100%. Scope 3 is not applicable to LDI, as it contains primarily UK sovereign bonds and the UK government records Scopes 1 and 2 only.

Binary target measurement

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 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. More detail is available in the metric table footnote.

The Carbon Emissions Template

Our investment adviser, Aon, collected the carbon emissions data from our managers on our behalf using the industry standard CET Template. 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.

[5] 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 Plan's climate-change risk exposure.

In our first year of reporting, we set a target to improve data coverage for Scopes 1 and 2. Without meaningful data from the investment managers, it is very hard for us to measure our climate-risk exposure. So, it is important to set a target to improve the data coverage of the GHG emissions data from the managers.

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 target continues to be suitable.

Our progress towards the target

The table below shows the data coverage progress against our target compared to the previous year.

Asset class	2022 Coverage	2023 Coverage	Future target (2026)
Return-seeking Bonds	41%	45%	75%
LDI	100%	100%	100%

Source: Aon, Investment Managers.

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

Since last year, steady progress has been made against the target. Our LDI coverage stayed in line with the target of 100%, and our Return-seeking Bonds fund improved from 41% to 45%. Through ongoing engagement with the managers (see more detail on this below) and the development of best practice approaches to carbon emissions reporting, the Trustee expects to see a greater rate of improvement in the data coverage over time.

Steps we are taking to reach the target

To improve data coverage, we will engage with the Plan's investment managers to improve the availability and reporting of emissions data for each asset class in which the Plan is invested. Through ongoing pressure from asset owners collectively and new regulatory requirements for asset managers, we expect data coverage to improve over time and will engage further with the managers if progress does not meet our expectations.

Appendices

Additional supplementary information regarding our climate disclosures report.

Appendix 1 - Glossary

Governance	refers to the system by which an organisation is directed and controlled in the interests of shareholders and other stakeholders.[6] 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.[7]
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.[8]
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.[9]
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.[10]
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.[11]

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

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

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

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

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

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

Greenhouse gas emissions scope levels[12]	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.[13]
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).[14]
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.[15]
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.[16]

[12] World Resources Institute and World Business Council for Sustainable Development, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition), March 2004.

[13] PCC, Climate Change 2014 Mitigation of Climate Change, Cambridge University Press, 2014.

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

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

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

Appendix 2 – An explanation of 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 (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 risks are extreme climate events such as flooding and wildfires, and chronic risks are trends over time such as an increase in temperature or ocean acidification.

Acute

Examples
Extreme heat
Extreme rainfall
Floods
Droughts
Storms (e.g., hurricanes)

Chronic

Examples
Water stress
Sea level rises
Land degradation
Variability in temperature
Variability in precipitation

Appendix 3 – Climate scenario 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 Plan to climate-related risks and the approximate impact on asset/liability values 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.

Our model assumes a deterministic projection of assets and low dependency liabilities, 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 us 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 with the different scenarios.

III. Note no allowance is made for expenses, with modelled asset/liability cashflows left unaffected by these factors.

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

The model intends to illustrate the climate-related risks the Group is currently exposed to, highlighting areas where risk mitigation could be achieved through changing the portfolio allocation.

I. 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 Plan faces; other risks include covenant risk, longevity risk, timing of member options, basis risks and operational risks.

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

Data used

The model projects using the following inputs as at 31 December 2021:

- Market value of assets: £1.372bn
- Present value of pure gilts liabilities (including expenses): £1.364bn

  The projection has been completed in RATE which is consistent with the modelling completed for quarterly funding updates.
- No contributions have been assumed.
- Insight LDI fees are assumed to be de minimis and not modelled.
- AIL Return-Seeking Bonds fees are assumed to be a flat 20bps throughout the projection.

  Investment Strategy is annually rebalancing and assumed to be 26.5% Return-seeking bonds and 73.5% LDI.
- The LDI solution is assumed to be hedge 100% of interest rate and inflation movements in the pure gilts basis.

Appendix 4 – Greenhouse gas emissions in more detail

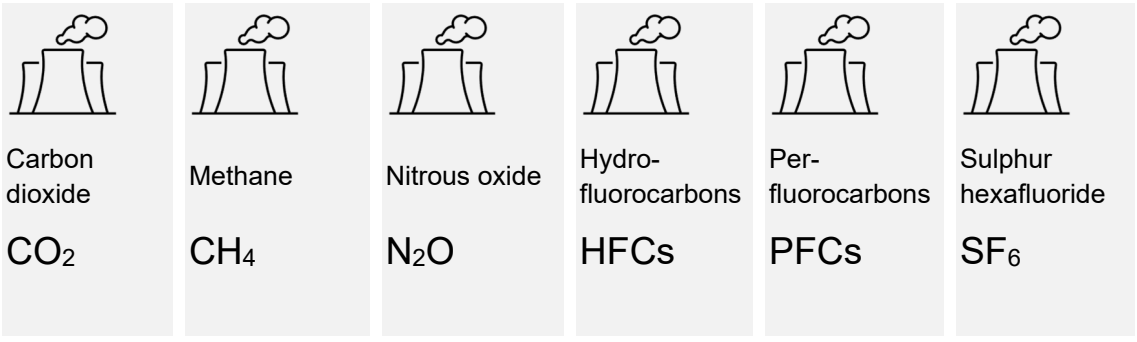
Greenhouse gases in the atmosphere, including water vapour, carbon dioxide, methane, and nitrous oxide, keep the Earth's surface and atmosphere warm because they absorb sunlight and re-emit it as heat in all directions including back down to Earth. Adding more greenhouse gases to the atmosphere makes 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[17] 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.

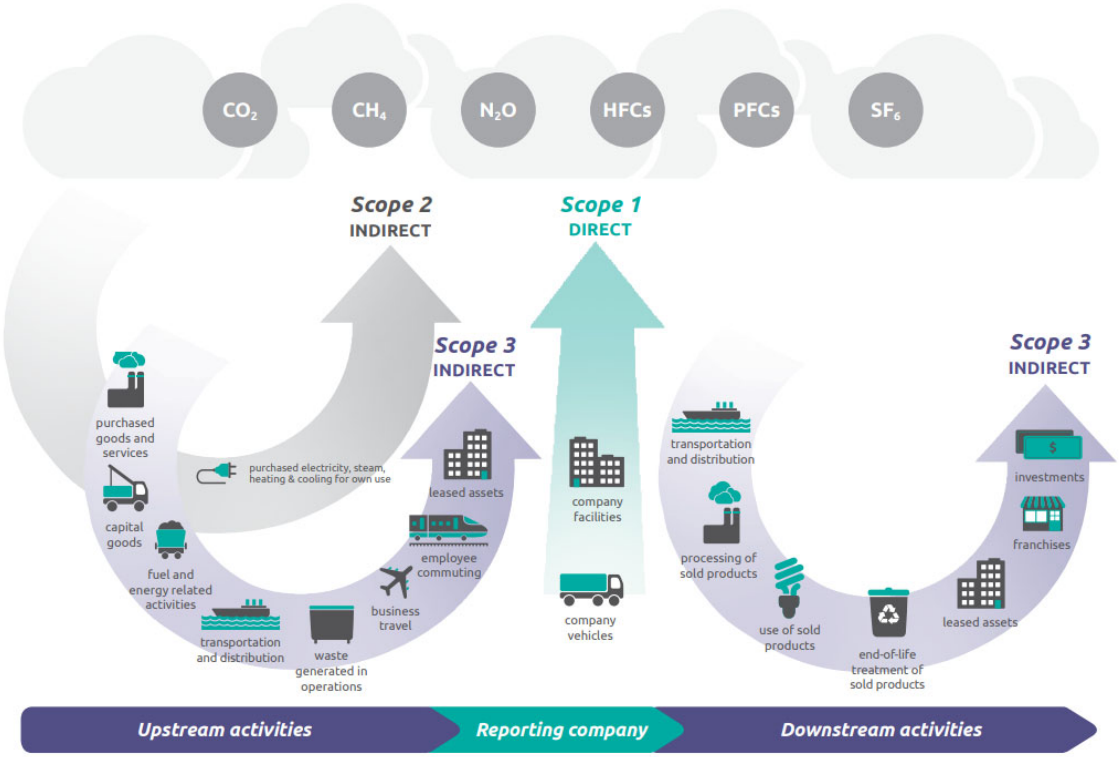
Six main greenhouse gases identified by the Kyoto Protocol



[17] 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