Climate disclosures for year ending 5 April 2023

Produced by: The Trustee of the GKN Group Pension Scheme No.1

Date: December 2023

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 vulnerability of GKN Group Pension Scheme No.1 ("the Scheme") 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 scheme's climate-related risks. The regulations require trustees to report in a 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 has been prepared in accordance with the regulations set out under The Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 (the "Regulations"). It provides an update on how the Scheme aligns with each of the four elements set out in the regulations. The four elements covered in the statement are detailed below:

- **Governance:** The Scheme's governance around climate-related risks and opportunities.
- **Strategy:** The actual and potential impacts of climate-related risks and opportunities on the Scheme'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 document is the annual climate disclosures report for the Scheme for the year ended 5 April 2023. It has been prepared by the Trustee of the GKN Group Pension Scheme No.1 (the "Trustee").

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

To produce this TCFD-aligned report, we have worked with our DB investment adviser to carefully consider the potential impact climate change could have on the Scheme's investments and how we identify, manage, and mitigate those risks.

Overview of the Scheme

The Scheme is comprised of a Defined Benefit (DB) section and a Defined Contribution (DC) section. The DB and DC sections of the Scheme invest in a range of assets, and in this report, we consider the impact of climate-related risks on those asset classes, the investment strategy and the potential impact of on the funding of the Scheme. The majority of the assets of the Scheme are held in the DB section, with a smaller amount held in the DC section, primarily through pooled fund platforms. The analysis of climate-related risks and opportunities for the DB and DC sections of the Scheme has been carried out in a proportionate manner.

The Trustee has been supported by its DB investment adviser with the production of its TCFD report and also the data contained within it, and the Trustee's DC investment adviser has also provided support through the provision of any information required to analyse the climate-related risks affecting the DC section.

Strategy

DB Section

Diversification of assets is key to a portfolio that can manage the risks associated with climate change and the transition to a low carbon economy. The DB section is exposed to low levels of risk in the short- to medium-term and this is driven by a significant allocation to a Liability Driven Investments (LDI) portfolio. This is less exposed to climate risks over these terms given the principle underlying assets are sovereign bonds and is further bolstered by a wide diversification across asset classes, sectors, and regions. In the long-term, the Scheme is exposed to greater climate-related risks as regulatory and technological changes increase; this will particularly impact the Global and Private Equity section of the DB portfolio.

DC Section

The DC section is diversified across a range of equity, property, corporate bond, and multi-asset funds. This section of the portfolio is implemented largely via pooled passive fund vehicles, with the asset allocation being managed according to members' terms to retirement. The investment strategy is climate-risk aware and is expected to manage the transition to a low carbon economy well.

Risk Management

This section contains the Scheme's risk management framework, which assists with the ongoing management of climate-related risks and opportunities. This plan outlines the different activities that the Trustee undertakes to identify, assess, and manage the climate-related risks that are relevant to the Scheme. It

also identifies the entities who support the activities, as well as the frequency of reviews.

This process of identifying and assessing climate-related risks has been reviewed as part of the process of producing this TCFD report.

Metrics and Targets

The Trustee gathered the carbon metrics data primarily from its fiduciary manager for the DB section and the DC investment manager for the DC section. As required, the Trustee has, as far as it is able to, collated the data for the total greenhouse gas (GHG) emissions, carbon footprint, data coverage and the binary target measurement. These metrics were chosen following advice from the Trustee's DB investment adviser.

DB Section

The fiduciary manager was able to provide good data for this section with the main barrier being the derivatives within the non-LDI portfolio. Over time as methodology for allowing for the emissions associated with derivatives is established, we expect to see significant improvements in the data coverage of the portfolio's emissions.

The non-LDI assets have an average data coverage of 38% for Scope 1, 2 and 3 emissions, with Scope 1&2 carbon footprint at 81 tonnes of CO_2 equivalent emissions per million GBP invested (tCO_2e/£m), and Scope 3 at 563 tCO_2e/£m. The proportion of the portfolio that has been confirmed to have a net-zero goal was notably low at 6% with 4% Science Based Targets initiative (SBTi[1]) verified.

For this section the Trustee has set a target to improve data quality to 80% data coverage by 2030 for Scope 1, 2 and 3 emissions.

DC Section

The DC investment manager was able to provide good data coverage for the Scope 1 & 2 emissions of the DC section of the Scheme, however, it was unable to provide complete data for the Scope 3 emissions.

The average coverage of Scopes 1 & 2 emissions for the material investments of the DC section was 83%, with an average carbon footprint of 52 tCO_2e/£m (based only on the assets for which carbon data was available), and confirmed net-zero goals of 28% and 59% for the diversified fund and the growth fund respectively.

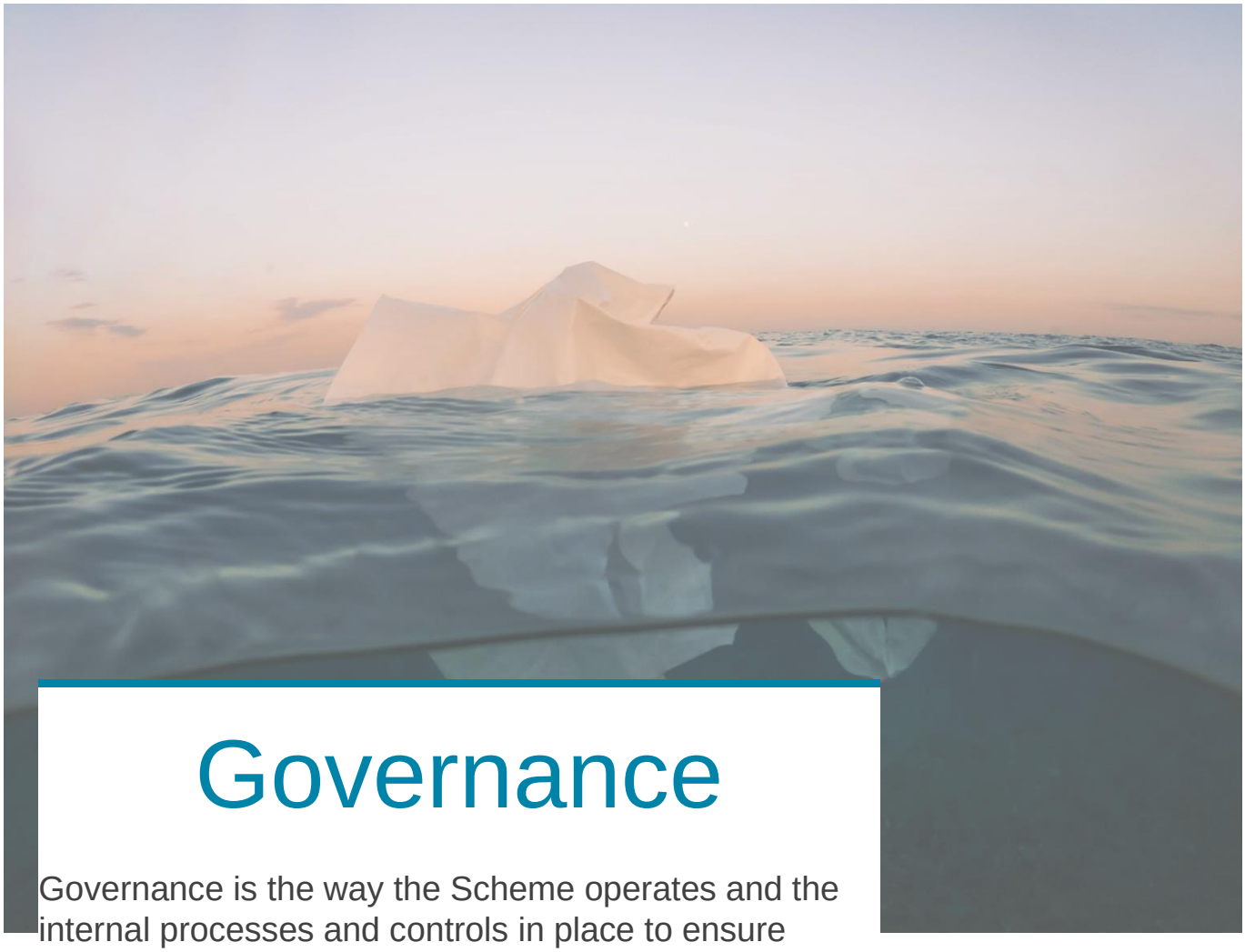
For this section the Trustee has set a target to improve data quality. To improve data quality, the Trustee has set a specific target of 100% data coverage by 2026 for Scope 1 & 2 emissions and will look to include a Scope 3 emissions coverage target in subsequent reporting years.

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

Andrew McKinnon, Chair of Trustees

on behalf of the Trustee of the GKN Group Pension Scheme No.1.

[1]SBTi: Defines and promotes best practice in emissions reductions and net-zero targets in line with climate science. Provides technical assistance and expert resources to companies who set science-based targets in line with the latest climate science.



Governance

Governance is the way the Scheme 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 Scheme-wide decisions, such as those relating to the investment strategy (or how it is implemented), funding, and the ability of the sponsoring employer to support the Scheme and liabilities.

Our Scheme's governance

As the Trustee of the Scheme, we are responsible for overseeing all strategic matters related to the Scheme. 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 Governance section of this report below, and are reviewed annually.

Role of the Trustee

The Trustee is ultimately collectively responsible for oversight of all strategic matters related to the Scheme. This includes approval of the governance and management framework relating to environmental, social and governance ("ESG") considerations and climate-related risks and opportunities.

Given its importance, the Trustee has not identified one individual to specifically be responsible for the Trustee's response to climate risks and opportunities. Rather, the Trustee has collective responsibility for managing the Scheme's climate change risk framework.

The Trustee's Climate Beliefs

The Trustee has discussed and agreed its climate-related beliefs and overarching approach to managing climate change risk. These beliefs and objectives are as follows:

- **Climate Change:** The Trustee recognises climate change is an urgent and critical global challenge. It poses systemic risks to financial markets due to both physical and transitional risks; physical risks referring to disruptive climate events/trends and transitional referring to the risks and associated adaptation costs arising from a move to a low-carbon economy. These risks are likely to impact the Scheme's investments and members' benefits.

- **Fiduciary Duty:** The Trustee's focus is on its fiduciary duty to act in the best financial interest of the Scheme and its beneficiaries, seeking the best return that is consistent with a prudent and appropriate level of risk. Among other things, this includes the risk that environmental factors, including climate change, may negatively impact the value of the investments held if not understood and evaluated properly. The Trustee recognises that ESG factors are financially material and that taking them into account with a long-term vision is consistent with its fiduciary duty to members of the Scheme.

Trustee's update

The Trustee began its TCFD reporting journey in March 2021 with training about climate reporting regulations.

The Trustee then undertook Climate Change Scenario Analysis for the Scheme, followed by a TCFD structure recap in June 2023, alongside the presentation and ratification of the governance pillar.

Finally, the Trustee fully reviewed the climate-related risks and opportunities affecting the Scheme, including the risk management framework and carbon-related metrics and targets towards the end of 2023 to ratify its first year of TCFD reporting.

- **Responsible Investment:** The Trustee recognises that whilst risk and return considerations are important, there is a view that financial factors should not be the only consideration when making investment decisions. The Trustee believes that whilst climate change is a key risk factor to the Scheme, social and governance factors are also important, both from a financial and non-financial point of view.

- **Opportunities:** The Trustee wants the Scheme's investment portfolio to be resilient to the risks posed by the transition to a low carbon economy. As such, when assessing the impact of climate change on the Scheme's investment strategy, the Trustee (via its fiduciary manager) will seek to identify investment opportunities that have the potential to be resilient to climate change risks. This may include investments in low-carbon or ESG-tilted investments if these investment opportunities fit within the wider strategic objectives of the Scheme. The Trustee believes that taking ESG considerations into account may lead to better risk-adjusted returns.

- **Engagement:** The Trustee believes that it should practically prepare for the risks associated with climate change. The Trustee expects that its fiduciary manager will itself engage with the underlying managers it appoints to the Scheme's portfolios and measure the impact this engagement has on outcomes associated with the investment decisions taken on the Trustee's behalf.

- **Framework:** As a first step, the Trustee has formalised its climate change risk management framework (see the *Risk Management* section of this report), which sets out the Trustee's processes for identifying, understanding, and managing climate-related risks. The Trustee will review its climate change risk framework annually and will monitor progress against its objectives at least annually, and more frequently if required.

Trustee Training and Delegation

- The Trustee receives training on climate-related issues on a minimum of an annual basis, but more frequently if required. This training ensures that it has the appropriate degree of knowledge and understanding on these issues to support good decision-making.
- Over the past year, this training has included introducing climate-related risk and opportunities as concepts relevant to investment decision-making, and the TCFD framework as a method for explaining how these risks and opportunities are identified, assessed and managed.
- The Trustee expects its advisers to bring important and relevant climate-related issues and developments to the Trustee's attention

in a timely manner. This forms a routine part of Trustee meetings, and part of the ongoing programme of training for the Trustee.

- The Trustee delegates day-to-day responsibility for all investment decisions, including those in relation to climate-related risks and opportunities of the DB section, to the fiduciary manager and to the DC investment manager for the DC section. The Trustee considers that the fiduciary manager and DC investment manager to be best placed to invest the assets on their behalf within the remit of their agreements.

Role of other advisers

- **Investment advisers:** The Trustee has two investment advisers, one for the DB section, and one for the DC section. The DB investment adviser provides strategic advice and practical support to the Trustee in respect of the management of climate-related risks and opportunities and ensuring compliance with the recommendations set out by the TCFD, with support of the DC investment adviser, who provides information in relation to the DC section. This includes provision of regular training and updates on climate-related issues and climate change scenario modelling to enable the Trustee to assess the Scheme's exposure to climate-related risks.

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

- **Scheme Actuary:** The Scheme Actuary will help the Trustee assess the potential impact of climate change risk on the Scheme's funding.

- **Fiduciary/Investment managers:** The Scheme's managers will help the Trustee understand how they, and the underlying managers where relevant, consider climate change risk in their investment approach. The Scheme's managers are also responsible for the implementation of climate-related opportunities, where appropriate.

  The Trustee will monitor the performance of the managers on an ongoing basis through the regular reports and meetings held to discuss the management of the Scheme's portfolios. As part of this, the Trustee will seek updates regarding the climate-related capability and expertise present, including how this influences the Scheme's portfolios.

- **Covenant adviser:** the Trustee's covenant adviser will help the Trustee understand the potential impact of climate change risk on the sponsor covenant on a triennial basis, in line with the Scheme's full actuarial valuation. As part of future covenant advice, the Trustee will seek to understand how climate-related factors could affect the sponsoring employer's strategy over time and consider this in light of the Scheme's de-risking journey. In doing so, the Trustee will seek information from the covenant adviser regarding their credentials in assessing climate-related factors.

Strategy

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

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

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

This year we carried out a qualitative risk assessment of the asset classes the Scheme is invested in. From this we identified which climate-related risks and opportunities could have a material impact on the Scheme.

Given the number of asset classes within the Scheme, we completed this exercise to the best of our ability. To help us with our assessment, we surveyed our fiduciary manager, asking it to rate the climate-related risks and opportunities it believes its funds are exposed to. The fiduciary manager was able to provide the required data for the relevant asset classes.

Due to the relatively small size of the DC assets of the Scheme, the analysis of climate-related risks and opportunities has been completed at a high-level.

Our DB Investments

The DB section's investment portfolio is diversified across a range of different asset classes including Global Equity, Corporate Credit, Sovereign Bonds and Private Equity.

As at 31 March 2023, the DB section's asset allocation (for assets that are materially impacted by climate-related risks) was as follows:

Bucket	Liability Driven Investment	Liquid Growth	Illiquids	Cashflow
Relevant asset classes	Sovereign Bonds	Global Equity and Corporate Credit	Private Equity	Corporate Credit
Asset Allocation	66%	22%	7%	5%

Our DC Investments

The assets of the DC Section are diversified across a range of assets classes through pooled fund platforms. The Trustee has focused its analysis on the default funds, which are entirely multi-asset arrangements. The self-select funds have been excluded from this analysis as only a small number of members, and a small amount of assets, are invested in the self-select funds.

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 Scheme and its obligations to pay benefits. We decided the most appropriate time horizons for the Scheme are:

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

DC Section:
- Short-term: 1-5 years
- Medium-term: 6-10 years
- Long-term: 11-30+ years

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

DB Section - Key conclusions

Diversification across asset classes, sectors and regions is important to manage climate-related physical and transition risks for the Scheme. As a whole, the DB investments are exposed to low levels of risk in the short- to medium-term. This is driven by diversification across assets classes and a high allocation to lower risk investments that are likely to see low levels of impact as a result of the transition to a low carbon economy.

In the long-term, the Scheme will be impacted further as a result of climate change. This is driven by regulatory and technological changes and the increase in occurrence of environmental tipping points that are likely to impact the Scheme, particularly in the Global Equity element of the portfolio.

For a more detailed risks assessment by asset class, please read on.

Climate-related risk assessment – DB Section

Global Equity

Physical Risks

	Acute	Chronic
Short	A	G
Medium	A	A
Long	R	R

In the short-term, acute physical risks are seen as amber due to the increased prevalence of severe weather events, with effects already felt in certain sectors. In the medium- and long-term, these risks will increase in line with the increased likelihood of extreme weather events such as floods/wildfires.

In the short-term, chronic risks are low as certain tipping points that will accelerate the effects have not yet passed, such as shrinking ice caps and a weakening jet stream. As such environmental tipping points are reached, this may lead to financial tipping points such as insurable markets and stranded assets, with the issue becoming more chronic (systemic).

Transitional Risks

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

In the short-term, regulation and technology are seen as low risk as other macro-factors such as inflation, interest rates, energy security and geopolitics are likely to be seen as a bigger contributor. Market and reputational risks are seen as amber as there will be increased market calibration as a result of increased climate change disclosure requirements.

In the medium-term, the regulatory risk will increase due to a focus on a lack of achievement towards decarbonisation goals. Technology becomes riskier due to a stronger focus on grid infrastructure and carbon capture. The market is not expected to change, and reputation moves to high risk as moving closer to 2025 will highlight insufficient policy change and heighten attention of companies unable or unwilling to transition.

In the long-term, all transition risks are expected to be high. The 2020s are a key decade for policy change, with ambitious 2030 decarbonisation targets set by UK and Europe. It is expected that regulatory implementation and technological change will follow in the 2030s.

Corporate Credit

Physical Risks

	Acute	Chronic
Short	G	G
Medium	A	A
Long	A	A

Transitional Risks

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

The fiduciary manager believes that similar impacts will prevail for both Global Equities and Corporate Credit over the short – long time horizon. As such, the commentary is the same as for Global Equity. However, Global Equities are likely to be more sensitive to the physical effects of climate change than that of Corporate Credit, this is because of in the event of insolvency of the underlying companies on which the securities are written, debt is paid before equity, thus the reduced risk ratings on this RAG table.

Sovereign Bonds

Physical Risks

	Acute	Chronic
Short	G	G
Medium	G	G
Long	A	A

In the short-term, acute and chronic physical risks are not seen as past environmental tipping points, despite some increased prevalence of weather events. In the medium-term, risks are also low.

The Scheme invests in high quality sovereign debt whose governments, over the medium-term, will be less impacted by physical risks than developing countries. Whilst there may be a financial impact of the physical risks this should be put in the context of the other risks impacting the financial outcome of sovereign bonds. Over the longer-term, physical risks are expected to start impacting the financial outcome of sovereign bonds more in relation to the other risks faced.

Transitional Risks

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

In the short-term, transitional risks are seen to be low. While climate change is increasingly understood and socialised within financial markets, the Scheme's fiduciary manager believes that other macro-factors, such as inflation, interest rates, and geopolitics, is likely to be a bigger contributor to risk / return than climate change.

In the medium-term, risk is expected to increase across the board. Regulatory risk will increase as attention increases on policy frameworks and green regulation such as emissions trading, and government subsidies for green solutions.

Long-term transition risks are expected to remain medium. As regulations are implemented, technological change increases, the market adapts and reputational pressures increase, there will continue be a financial impact. Whilst these may be a financial impact of the transition risks this should be put in the context of the other risks (monetary policy, inflation, growth, government policy, geopolitics) impacting the financial outcome of sovereign bonds hence the assessment of amber.

Private Equity

Physical Risks

	Acute	Chronic
Short	A	G
Medium	A	A
Long	R	R

The Private Equity is not expected to be a long-term holding, hence the Trustee has focused on the short and medium-term risks. In the short-term, acute physical risks are seen as medium as there is an increasing prevalence of weather events (floods, wildfires). While these tipping points have not yet been reached, acute impacts are already felt in certain sectors e.g., insurance. In the medium- / long-term this will increase.

Chronic risks are low in the short-term however, in the medium-term this becomes amber as the severity and frequency of weather events is expected to increase into the 2030s. The environmental tipping points lead to financial tipping points, such as insurable markets and stranded assets, with the issue becoming more chronic (systemic).

Within the fiduciary manager's portfolios they invest in high quality private equity deals which are expected to

Transitional Risks

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

In the short-term, risk is expected to be low. Other macro-factors, such as inflation, interest rates, energy security and geopolitics, are likely a bigger contributor to risk / return than climate change. Reputation is considered amber due to social protect within the UK which may raise reputational challenges for some firms.

In the medium-term, the risk is expected to increase. Private equity will be affected by all of the transitional risks. It will be drawn into regulatory and disclosure requirements and affected by technology. Market and reputation are seen as more high risk.

Long-term all transition risks are high. The fiduciary manager expects the regulatory implementation and technology change to follow in the 2030s. However, the extent that the regulation will be targeting Private Markets is likely to be less extensive than that of the public markets hence their assessment of amber.

be impacted to a lesser extent than broad public equity markets.

Climate-related risk assessment – DC Section

Physical Risks

Chronic risks are long-term in nature and not expected to have material financial impact in the short-term. In the medium-term, acute physical risk exposure is expected to increase. This is independent of the global climate pathway, as much of the additional warming to 2030 is already “committed” given historical emissions.

In the long-term, heat stress, rising sea levels and changes to weather patterns are likely to affect companies’ profitability and countries’ economic output through impacts on labour productivity and availability and potential impacts on supply chains and physical infrastructure.

Transitional Risks

Technology change is accelerating, and companies should already be preparing for the medium- and long-term impacts of this shift. In the short-term it is unlikely that those lagging would lose significant value as a result, regardless of scenario trajectory. The medium-term is a crucial period for the climate transition, as time is running out to stay within global carbon budgets for limiting global warming to well-below 2°C.

Over the longer term, a large drop in demand for fossil fuels is envisaged for both orderly and disorderly transition pathways, especially coal and oil – with potentially large financial repercussions at a global multi-asset level depending on companies’ and countries’ mitigation actions respectively.

Climate-related opportunities

The Trustee has identified some climate-related opportunities which may be suitable for the Scheme.

Equity, Corporate credit, and Private Equity

Public and private companies actively involved in the transition are likely to suffer from less financial risk and achieve more positive investment outcomes.

For example, companies that invest in climate resilient ways and those who manage their supply chains are less likely to suffer from financial risks and are able to take advantage of more positive investment outcomes and opportunities.

Opportunities for the Scheme include investing in screened equity or bond funds. As of March 2023, the Scheme invested in a sustainable equity allocation and during 2023 will be assessing their investment grade credit allocation, taking into account sustainability. The Scheme invests in private equity investments related to renewable energy.

Government Bonds

Governments issuing green bonds can take advantage of cheaper financing opportunities given that green bonds will generally be issued a lower yield compared to a similar non-green bond.

Holding green bonds within the LDI portfolio is permissible but is dependent on factors such as fit to the liabilities and cost versus non-green bonds.

How resilient is the Scheme to climate change?

We have carried out climate change scenario analysis to better understand the impact climate change could have on the Scheme's assets and liabilities, where relevant.

Under the regulations, scenario analysis must be carried out at least every 3 years, or sooner if there have been significant changes which could impact the Scheme.

The analysis considers a range of climate change scenarios. Each scenario considers what may happen to the Scheme 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.

Key conclusions

The DB section's investment portfolio exhibits reasonable resilience under all the climate change scenarios modelled. This is due to the diversification of assets, the low-risk investment strategy, and high levels of hedging against changes in interest rates and inflation.

The DC section is invested in a variety of diversified and growth funds and as such, is likely to be resilient against the effects of climate change in a similar way to the DB assets.

The climate scenarios intend to illustrate the climate-related risks the Scheme 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, but this is not the only risk that the Scheme faces. Other risks include covenant risk, longevity risk, timing of member options, basis risks and operational risks.

Impact Assessment – DB Section

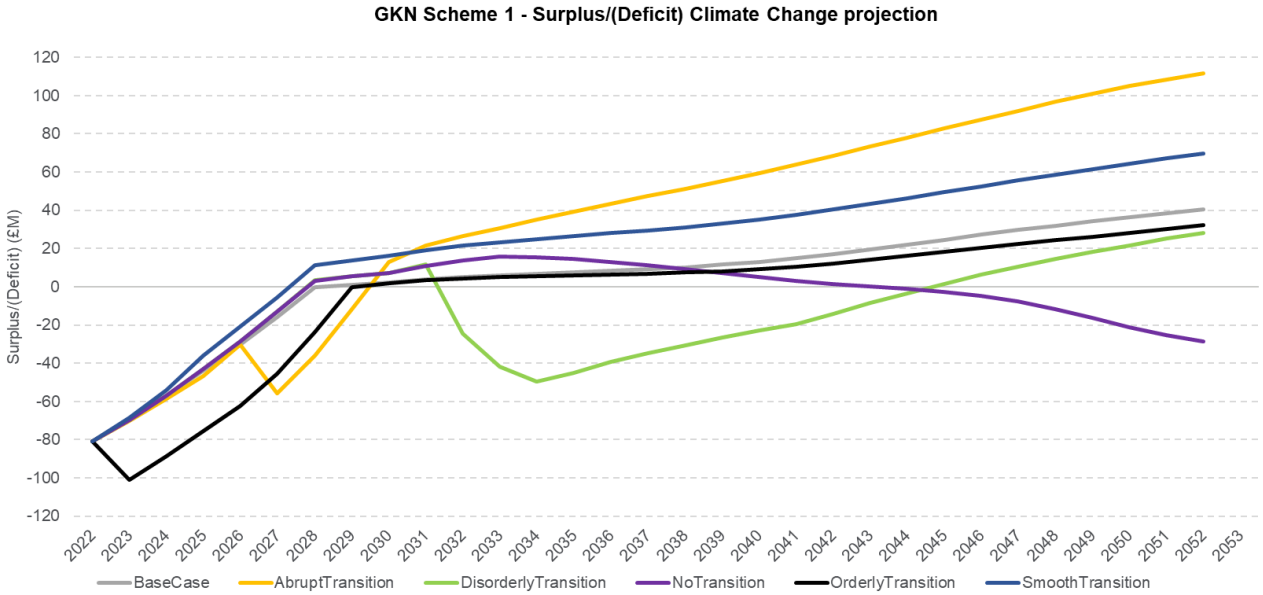
The DB analysis looks at 5 climate change scenarios. The Trustee has chosen these scenarios because it believes that they provide a reasonable range of possible climate change outcomes. The Trustee established a "base case" scenario against which the five climate change scenarios are compared.

	Reach net zero by	Degree warming vs pre-industrial levels by 2100	Introduction of environmental regulation	Scenario description
Base Case	2050	~2ºC – 2.5ºC	-	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	After 2050	+4ºC	Late and Aggressive	No further action is taken to reduce greenhouse gas ("GHG") emissions leading to significant global warming.
Disorderly Transition	After 2050	<4ºC	Late and Aggressive	The world economy remains oriented towards improving near-term economic prospects, with companies and governments taking a "business as usual" approach. Eventually, market participants begin to fully grasp the implications of climate change and there is a growing realisation that current levels of action are inadequate. Market values price in high levels of economic damage and the irreversible loss.
Orderly Transition	2050	<2ºC	Coordinated	Increased public awareness of climate change risks galvanises opinion and leads to governments undertaking widespread action globally to aggressively mitigate and adapt to climate change. A high global greenhouse gas tax and carbon cap is introduced.
Abrupt Transition	2050	<2ºC	Aggressive	The effects from increasingly extreme weather events in the next five years lead to widespread public concern over climate change. This leads to governments introducing policies to drive a rapid reduction in greenhouse gas. Delayed action on reducing emissions means that the costs of tackling the problem are higher.
Smooth Transition	2045	<1.5ºC	High Coordination	Private sector innovation and a green technology revolution, combined with government coordination, help drive progress towards tackling climate change.

Source: Aon.

Impact on your funding level

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



The worst-case scenario for the Scheme is the disorderly transition. Although initially the deficit improves in line with the base case, after 10 years the deficit increases sharply. This leaves the Scheme materially worse off in terms of surplus relative to the base case for years 10-25.

Another key risk is volatility of the deficit. Under the abrupt and orderly transitions, the Scheme experiences an increase in the deficit of around £20m before recovering. Deterioration of the funding level will place a strain on the sponsor covenant as the sponsor may have to make up a bigger shortfall through deficit contributions. It may also require the Scheme to re-risk in order to stay on track to achieve its funding target or extend the timeframe for achieving this.

What does the chart show?

The chart shows what could happen to the Section's funding level under each climate scenario up to 30 years into the future.

The funding level is a measure of the value of surplus or deficit assets the Section has above the projected cost of the Section's pension liabilities.

Depending on the scenario, the projected path of the funding level over time will vary. Under some scenarios the funding level experiences sudden falls.

The table below describes the impact of each scenario on the Scheme over the short-, medium- and long-term time horizons.

No Transition Scenario

Temperature rise by 2100	+4ºC
Reach net-zero by	After 2050
Introduction of environmental regulation	Late and Aggressive

Summary of the Scenario

In the short-term:
No action is taken to combat climate change.

In the medium-term:
No action is taken to combat climate change.

In the long-term:
No action is taken to combat climate change.

Summary of the impact to the Scheme

In the short-term:
The impact to the funding level is similar to other scenarios modelled and we see positive impact on funding level

In the medium-term:
Although initially there is improvement, in the medium-term we see a sharp decline on funding level in comparison to other scenarios

In the long-term:
Increased volatility results in a deficit of c£30m under this scenario. This is the worst outcome for the Scheme of all scenarios modelled in the long-term.

Disorderly Scenario

Temperature rise by 2100	<4ºC
Reach net-zero by	After 2050
Introduction of 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. However, the late and disorderly climate transition means that physical climate risks remain prominent over the very long-term.

Summary of the impact to the Scheme

In the short-term:
There is an increase to the funding level which is in line with other scenarios modelled.

In the medium-term:
There is a sharp decline in the funding level. This is the worst scenario for the Scheme in the medium-term. After 8 years, the deficit increases sharply leaving the Scheme materially worse off relative to the base case.

In the long-term:
Under this scenario, the Scheme reduces its deficit in the long-term. However, it still sits as one of the worst positions for the Scheme relative to other scenarios modelled.

Orderly Scenario

Temperature rise by 2100	<2ºC
Reach net-zero by	2050
Introduction of 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 Scheme

In the short-term:
Whilst initially there is an increase in the deficit of c£100m, this sees a bounce back relatively quickly.

In the medium-term:
The deficit for the Scheme is reduced in the medium-term and after 10 years is in a similar funding position to the other scenarios modelled.

In the long-term:
There is a slow improvement in the funding level under this scenario and we see a slight surplus in the long-term for the Scheme.

Abrupt Scenario

Temperature rise by 2100	<2ºC
Reach net-zero by	2050
Introduction of 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-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.

In the long-term:
Following rapid action in the medium-term, the longer-term benefits from tackling climate change lead to higher growth.

Summary of the impact to the Scheme

In the short-term:
The Scheme sees funding level improvement in the short-term.

In the medium-term:
The Scheme's funding level falls sharply and then recovers quite quickly.

In the long-term:
The Scheme's funding level continues to improve resulting in a large funding surplus. In the long-term, this is the best scenario modelled for the Scheme.

Smooth transition

Temperature rise by 2100	<1.5ºC
Reach net-zero by	2045
Introduction of environmental regulation	High Coordination

Summary of the Scenario

In the short-term:
Collective and coordinated action in the short-term, despite initial costs of funding the structural costs to transition the economy, leads to innovation and green technology development which boosts growth.

In the medium-term:
The rapid technological advancement combined with government actions drives a smooth transition to a low carbon economy and enjoys growth.

In the long-term:
The rapid technological advancement combined with government actions drives a smooth transition to a low carbon economy. Risk assets perform well.

Summary of the impact to the Scheme

In the short-term:
We see a steady and rapid increase in the funding level for the Scheme in the short-term. This is the strongest position relative to other scenarios modelled.

In the medium-term:
We continue to see consistent growth in comparison to both the base case and other scenarios for the Scheme.

In the long-term:
This is the second-best outcome for the Scheme in the long-term. Here, we have seen a gradual and consistent increase in funding level and at the end of the 30-year modelling period, the Scheme has a funding surplus.

Source: Aon. *Effective data of the impact assessment is 31 December 2022*

Modelling limitations

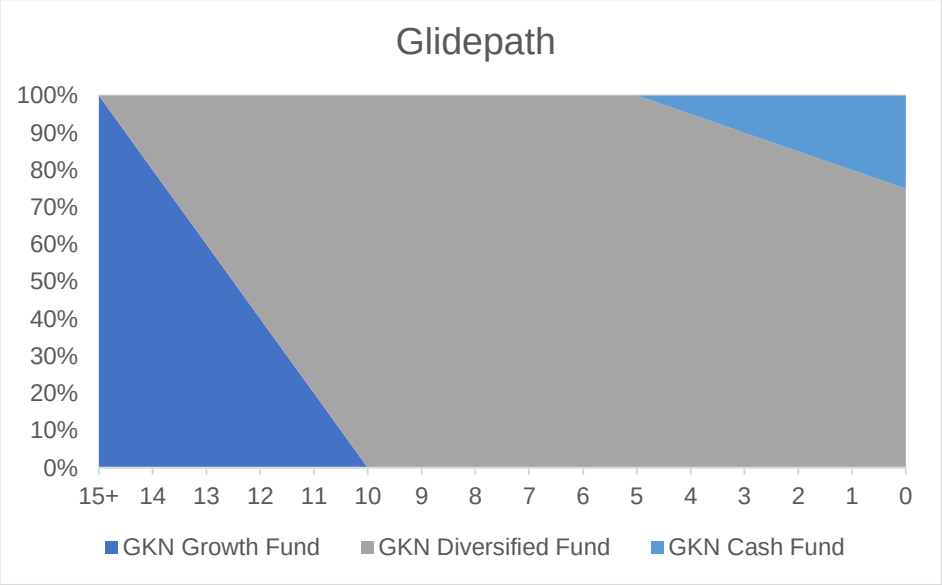
Please refer to the appendix for further details in relation to the assumptions used for the scenario analysis and its limitations.

Impact Assessment – DC Section

The assets held within the DC section are diversified across a range of asset classes. The Trustee has focused its analysis on the default fund, which is entirely multi-asset arrangements, diversified across a range of equity, property, corporate bond, and multi-asset funds.

Investment strategy

The default arrangement is the GKN Scheme No.1 'Drawdown Lifestyle' fund. The investment strategy of the default investment arrangement is shown in the chart below:



Source: DC investment adviser

In the default arrangement the asset allocation is managed according to members' terms to retirement. This default has been selected as it allows for flexibility in how members may take their benefits.

For members who do not wish to take an active role in investment decisions, the Trustee offers three default investment funds which should broadly meet the needs and reflect the likely benefit choices of the typical member. The aims of the default investment options, and the ways in which the Trustee seeks to achieve these aims, are detailed below:

- To generate positive nominal long-term returns in excess of inflation during the growth phase of the lifestyle strategy.
    - The default strategies' growth phase structure invests in equities. These investments are expected to provide growth and some protection against erosion in both real and nominal terms.
- To generate positive nominal long-term returns in excess of inflation during the consolidation phase of the lifestyle strategy whilst maintaining downside risk.
    - The default strategies' consolidation phase structure invests in a diversified growth fund. These investments are expected to provide growth with some downside protection and some protection against erosion in both real and nominal terms. This is achieved via automated lifestyle

switches by phasing in the diversified growth fund at 15 years prior to retirement, for a period of 5 years.

- To provide a strategy, as they approach retirement, that aligns to how members are expected to take their benefits.
    - The lifestyle options progressively and automatically switch a member's investments as the member approaches their selected retirement date.

The Trustee has considered the following 3 climate change scenarios, and compared them to the same base case noted above in the DB section. These scenarios have been utilised for the DC assets as they are likely to be the most relevant for DC members of the Scheme over the relevant time horizons:

Orderly transition	**Disorderly transition**	**No transition**
<2ºC	**<4ºC**	**+4.0ºC**
Considers the impact of immediate and coordinated action to tackle climate change using carbon taxes and environmental regulation	Considers the potential impact of climate change if limited action is taken and insufficient consideration is given to sustainable long-term policies to manage global warming effectively.	No further action is taken to reduce greenhouse gas ("GHG") emissions leading to significant global warming.

The short-, medium-, and long-term time horizons noted here are not the same as those set out for the DB assets of the Scheme. The time horizons of the DC assets are longer than those of the DB assets for each term reflecting the younger population of members. The Trustee considers the short-, medium- and long-term time horizons of the DC assets to be 1 to 5 years, 6 to 10 years, and 11 to 30+ years, respectively.

Young and mid-career members

The financial impact for these members is likely to be driven by the **long-term time horizon.** Specifically, the climate-related risks associated with investing in equities is expected to be greatest over the long-term. Nevertheless, it is important for these members for the assets to be invested in growth assets (primarily equities) to help members achieve good retirement outcomes. Allocating to assets such as government bonds, which offer lower exposure to climate-related risks, is unlikely to be in members' best interests over the long-term.

Accordingly, the Trustee believes it is important to focus on managing the climate-related risks of the equity within the portfolio.

Within the equity portfolio, the investment strategy is climate-risk aware, through investment in the L&G World (ex UK) Equity Index Fund, the L&G UK Equity Index Fund, and the HSBC Islamic Global Equity Index Fund. These investments aim to manage both the risks and opportunities of climate change to improve the overall risk / return characteristics of the portfolio.

The table below describes the impact of each scenario on the DC assets for young/mid-career members over the short-, medium- and long-term time horizons.

Orderly	Disorderly	No transition
Short-term Asset portfolios are expected to suffer an initial drop as a result of the costs of immediate coordinated action to tackle climate change	**Short-term** There is not expected to be any initial impact on asset portfolios and performance is expected to follow the base case.	**Short-term** There is not expected to be any initial impact on asset portfolios and performance is expected to follow the base case. There is no action taken to combat climate change.
Medium-term Asset portfolios are expected to recover from the initial shock of transition costs. Relative to the other scenarios, the lower impact from physical risks (given action to tackle climate change) is beneficial for portfolios.	**Medium-term** Asset portfolios deteriorate sharply as a result of delayed action required to tackle climate change.	**Medium-term** Impacts from physical risks gradually become more severe over time leading to a drag on economic growth and risk asset returns. Asset portfolios begins to lag the base case.
Long-term Members' asset portfolios are likely to perform strongest relative to the base case. This represents the fastest transition to a green economy, combined with limited physical risks.	**Long-term** Whilst asset portfolios do start to recover from the medium-term shock, this scenario is likely to be of most concern for this group of members, which would leave them materially worse off in comparison to the base case.	**Long-term** Impacts from physical risks gradually become more severe over time leading to a drag on economic growth and risk asset returns. Asset portfolios lag the base case and continue a downward trend.

Source: DB investment adviser, based on data provided by DC investment manager.

Older members (approaching and through retirement)

The financial impact for these members is expected to be driven by the short- to medium-term time horizons. Specifically, the climate-related risks associated with investing in equities is expected to have an impact on these members during this time period.

An increased level of diversification will help mitigate this risk, as members' allocation to equities is reduced as they approach and are at-retirement. Should members continue to invest post-retirement, the impact they experience will be more likely to include the 'long-term' effects below, albeit mitigated relative to younger members by their lower allocation to equities.

Relative to younger members, the climate risk from asset portfolios is reduced because of the lower allocation to equities and the shorter investment time horizon. However, for this group of members, the timing of the impact of climate risks on assets may mean there is limited time (in terms of remaining working life) to make up any shortfall in expected retirement benefits.

Orderly	Disorderly	No transition
Short-term Asset portfolios are expected to suffer an initial drop as a result of the costs of immediate coordinated action to tackle climate change.	**Short-term** There is not expected to be any initial impact on asset portfolios and performance is expected to follow the base case.	**Short-term** There is not expected to be any initial impact on asset portfolios and performance is expected to follow the base case. There is no action taken to combat climate change.
Medium-term Asset portfolios are expected to recover from the initial shock of transition costs. Relative to the other scenarios, relatively lower impact from physical risks (given action to tackle climate change) is beneficial for portfolios.	**Medium-term** Asset portfolios deteriorate sharply as a result of delayed action required to tackle climate change. For this group of members, the timing of a Disorderly transition may mean there is little time (in terms of remaining working life) to make up the pensions shortfall.	**Medium-term** Impacts from physical risks gradually become more severe over time leading to a drag on economic growth and risk asset returns. Asset portfolios begins to lag the base case.
Long-term Members' asset portfolios are likely to perform strongest relative to the base case. This represents the fastest transition to a green economy, combined with limited physical impacts from climate change despite the large initial transition cost.	**Long-term** Whilst asset portfolios do start to recover from the medium-term shock, this scenario is likely to be of concern for this group of members, which would leave them materially worse off in comparison to the base case.	**Long-term** Impacts from physical risks gradually become more severe over time leading to a drag on economic growth and risk asset returns. Asset portfolios lag the base case and continue a downward trend.

Source: DB investment adviser, based on data provided by DC investment manager.

Risk management

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

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 Scheme. This is part of the Scheme wider risk management framework and is how we monitor the most significant risks to the Scheme 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 DB investment adviser with support from our DC 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 DB and DC investment advisers.

Trustee update

This process of identifying and assessing climate related risks has been reviewed in the process of producing this TCFD report.

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

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

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 Scheme'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 on who is involved, what is done and how often. We have delegated a number of key tasks to the different advisers but retain the final responsibility. The processes for managing climate-related risks and opportunities are summarised in the tables below.

Governance

Activity	Delegated responsibility	Adviser / supplier support	Frequency of review
Publish TCFD report	Trustee	DB Investment Adviser / DC Investment Adviser DB Fiduciary Manager DC Investment Manager	Annual
Receive training on climate-related issues	Trustee	DB 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
Ensure investment proposals explicitly consider the impact of climate risks and opportunities and seek investment opportunities.	Trustee	Fiduciary Manager, DC Investment Manager	Ongoing
Ensure that actuarial and covenant advice adequately incorporate climate-related risk factors where they are relevant and material.	Trustee	Scheme Actuary, Covenant Adviser	Triennial
Engage with the fiduciary manager/investment manager to understand how climate risks are considered in their investment approach, and stewardship activities are being undertaken appropriately	Trustee	DB Investment Adviser DC Investment Adviser DB Fiduciary Manager DC Investment Manager	Annual

Trustee update

We monitored the above activities as part of our climate-related risks and opportunities management. During the year we published our TCFD report and implementation statement and updated our risk register for climate-related risks.

We received TCFD training from our DB investment adviser before the completion of the governance pillar.

Strategy

Activity	Delegated responsibility	Adviser / supplier support	Frequency of review
Undertake quantitative scenario analysis to understand the impact of climate related risks	Trustee	DB Investment Adviser / DC Investment Adviser	In the first year of reporting and triennially thereafter (with an annual review)
Identify the climate-related risks and opportunities for investment & funding strategy and assess their likelihood and impact.	Trustee	Advisers	Annual

Trustee update

We have spent dedicated time during the year to analyse climate-related risks and opportunities for the Scheme's DB and DC assets. The Scheme's fiduciary manager and DC investment manager provided good data for the strategy analysis.

As this is our first climate disclosures report, we conducted climate scenario analysis for both the DB and DC sections at a quantitative and qualitative level, respectively.

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	Investment Advisers	Annual
Include consideration of climate-related risks in the Scheme's other risk processes and documents, such as the risk register and the SIP, and regularly review these.	Trustee	Investment Advisers	Ongoing
Seek to understand the climate-related risks to the employer over the short-, medium-, and long-term.	Trustee	Covenant Adviser	Triennial

Trustee update

We have processes in place for identifying and assessing climate-related risks. Climate risk management is integrated into the ongoing risk management activities of the Scheme 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. Based on our analysis for this year's TCFD report, we do not need to make any changes to the Scheme's investment strategy.

Metrics and Targets

Activity	Delegated responsibility	Adviser / supplier support	Frequency of review
Obtain data for metrics	Trustee	DB Investment Adviser / DC Investment Adviser DB Fiduciary Manager DC Investment Manager	Annual
Review continued appropriateness of metrics	Trustee	DB Investment Adviser	Annual

Trustee update

The Trustee, supported by its DB investment adviser, collects metrics data on an annual basis, to understand the Scheme's greenhouse gas emissions, data quality and other climate-related metrics. The Trustee evaluated the metrics and chose a climate-related target to improve the quality of emissions information, initially focusing on improving the data coverage.

More details can be found in the *Metrics and Target section* of the report.

Assessing our managers – DB and DC

To assess our DB fiduciary manager and DC investment manager, we asked them 10 questions designed by the Pensions Climate Risk Industry Group[2] to help us to assess their 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.

DB Key Conclusions

Our manager gave a comprehensive response regarding the questionnaire. Some of the highlights include:

- The manager participates in climate-related public policy and initiatives including the Principle's of Responsible Investment policy group and the UK's Sustainability Disclosure Requirements.
- The manager does not hold any direct investments in fossil fuels in the portfolio.
- The manager's portfolios are committed to a long-term net-zero carbon intensity target (net-zero by 2050). They will begin tracking and monitoring the scheme's progress against this target based on 2019 levels.

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

- The manager is working towards the production of their own TCFD report.

We will continue to engage and work with the fiduciary manager to understand the future changes to the management of the Scheme's assets, including the integration of climate-related risk analysis, improvements in GHG emissions reporting and temperature alignment and the associated timescales involved with these.

DC Key Conclusions

Our investment manager gave a comprehensive response regarding the questionnaire. Some of the highlights include:

- The manager uses scenario analysis to aid their understanding of the strategic implications of possible climate pathways, including the key features of a transition to a net-zero economy. They model four scenarios.
- The manager considers shareholder resolutions on a case-by-case basis. They have recently supported shareholder proposals in relation to net-zero pathways.
- The manager has published its own TCFD report.
- The manager has set an interim net-zero aligned target of 70% of assets under management by 2030.

Metrics & Targets

Metrics help to inform our understanding and monitoring of the Scheme's climate-related risks. Quantitative measures of the Scheme'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 Scheme'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 Scheme'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

We have reported Scope 3 emission where it has been possible to do so. 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

The metrics which we have decided to report annually across our DB and DC sections are described below.

Total Greenhouse Gas emissions

The total greenhouse gas (GHG) emissions associated with the portfolio. It is an absolute measure of carbon output from the Scheme's investments and is measured in tonnes of carbon dioxide equivalent (tCO_2e).

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 (tCO_2e/£m).

Data quality

A measure of the proportion of the portfolio that the Trustee 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. For this report, we have focused data quality on the coverage of the data i.e. the proportion of the underlying data for which emissions have been reported and/or estimated.

Binary target measurement [3]

A metric which shows how much of the Scheme'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 SBTi verified.

[3] Binary Target Measurement can be either net-zero committed, or SBTi verified. Net-zero commitments represent the proportion of underlying securities within a portfolio with a formal commitment to reduce net CO_2e emissions to zero by defined point in the future e.g. the UK Government has a net-zero goal of 2030. SBTi is an industry body that verifies net-zero goals for corporate entities through a rigorous validation process.

DB Section

In the table below are the climate-related metrics for the Scheme's DB assets.

Asset class	Asset Allocation £m	Coverage (%) Scopes 1 & 2	Coverage (%) Scopes 3	Total GHG emissions (tCO_2e) Scopes 1 & 2	Total GHG emissions (tCO_2e) Scope 3	Carbon footprint (tCO_2e/£m) Scopes 1 & 2	Carbon footprint (tCO_2e/£m) Scope 3
Liquid Growth[1]	**132.5**	**21%**	**21%**	**2,698**	**18,051**	**96**	**642**
Equity (long)	24.6	97%	97%	820	9,582	34	402
Credit	8.3	52%	52%	1,878	8,469	434	1,959
Other	99.6	0%	0%	Data not available			
Equity (short)[2]	*8.1*	*95%*	*95%*	*453*	*454*	*59*	*59*
Cashflow	**31.1**	**50%**	**50%**	**819**	**4,808**	**53**	**310**
Credit	31.1	50%	50%	819	4,808	53	310
Illiquids[1]	**33.5**	**92%**	**92%**	**2,485**	**19,028**	**81**	**618**
Private Equity	30.8	100%	100%	2,485	19,028	81	618
Other	2.7	0%	0%	Data not available			
Total[1] (Excluding LDI)	**197.1**	**38%**	**38%**	**6,002**	**41,887**	**81**	**563**

Source: Fiduciary Manager and Investment Manager. Data as at 31 March 2023 with the exception of cashflow credit as at 31 December 2022. This table excludes LDI.
(1) Totals noted above include material assets only. Cash outside managed funds, trivial allocations where data collection would be disproportionate, and a property fund in wind-down have been excluded from totals.
(2) Equity short is not included in the total.

- *Numbers may not sum exactly due to rounding differences.*
- *Please see notes on the metrics data below for all data methodology and limitations.*

Asset class	£	Coverage (%) Scopes 1 & 2	Total GHG emissions (tCO_2e) Scopes 1 & 2	Carbon footprint (tCO_2e/£m) Scopes 1 & 2
LDI Physical	**326.8**	**100%**	**97,720**	**132.0**
LDI Synthetic	*413.5*	*100%*	*43,138*	*132.0*
Combined LDI Exposure	*740.3*	*100%*	*140,858*	*132.0*

Source: Fiduciary Manager, DB Investment Adviser. Data as at 31 December 2022.

- *Please see notes on the metrics data below for all data methodology and limitations.*

Binary target measurement

Asset class	% of portfolio that is Net-Zero committed	SBTi Approved
All other assets classes	6%	4%
LDI portfolio	100%	N/A[1]

Source: Fiduciary Manager, investment manager. Data as at 31 March 2023 unless specified otherwise.
(1) SBTi is a corporate measure and is not applicable to government entities.
- *Please see notes on the metrics data below for all data methodology and detailed commentary on the metrics.*

DC Section

In the table below are the climate-related metrics for the Scheme's DC assets.

The carbon metrics

		Coverage (%)		Total GHG emissions (tCO_2e)		Carbon footprint (tCO_2e/£m)	
Fund	**£m**	Scopes 1 & 2	Scopes 3	Scopes 1 & 2	Scope 3	Scopes 1 & 2	Scope 3
GKN Diversified	54.9	56%	0%	1,976	-	64	-
GKN Growth	98.6	98%	0%	4,649	-	48	-
Total	**153.5**	**83%**	**0%**	**6,625**	**-**	**52**	**-**

Source: DC Investment Manager. Data as at 31 March 2023 unless specified otherwise.
- *Numbers may not sum exactly due to rounding differences.*
- *Select funds, and cash excluded on grounds of materiality.*
- *Please see notes on the metrics data below for all data methodology and limitations.*

Binary target measurement

Asset class	% of portfolio that is Net-zero committed	SBTi verified
Diversified	28%	9%
Growth	59%	18%

Source: Fiduciary Manager. Data as at 31 March 2023 unless specified otherwise.
Please see notes on the metrics data below for all data methodology and limitations.

Notes on the metrics data collection

The metrics data collection has been completed by the Trustee's DB investment adviser, supported by the Trustee's fiduciary manager and DC investment adviser. The DB investment adviser has collated this information to produce the climate-related metrics for the Scheme's DB and DC sections' portfolios of assets.

There were no issues when collecting data for the DB and DC section. Some carbon data was not available for the DB section within the liquid growth and illiquid asset classes, this is shown in the table under the asset class "Other".

There were a number of observations regarding the data:

DB section

- Carbon data was unavailable for most of the material Liquid Growth portfolio. This was due to a variety of reasons, including:
    - The portfolio contains derivatives. As per the Department for Work & Pensions (DWP) guidance, it is noted that calculation of metrics in relation to certain asset classes, including derivatives, are not yet established and as such, this is something we would not expect to report on at this moment in time.
    - No carbon data was available for several of the underlying funds. This is something that we would expect to increase in coming years.
- Carbon data was unavailable for 8% of the material Illiquid Growth portfolio. This was due to a variety of reasons. Two illiquid funds were excluded:
    - The M&G property fund was excluded because it is being wound down; and
    - The Asper private equity fund was excluded due to the proportionality of this investment.
- LDI carbon data was not provided by the fiduciary manager. This was calculated using best-practice methodology recommended by the DWP; see notes on metrics calculations below.
- Methodology for the calculation of Scope 3 emissions has not yet been established, though we expect this to follow in future years.
- LDI has been split out from the portfolio excluding LDI. This is for several key reasons:
    - The inclusion of UK sovereign bonds within the portfolio would result in double counting of the emissions if combined with the rest of the portfolio;
    - The LDI includes both physical emissions (emissions of assets that are physically held within the portfolio) and synthetic emissions (emissions to which the Scheme is exposed through long derivative positions). Synthetic emissions cannot meaningfully be combined with those of the rest of the portfolio; and
    - The Trustee has limited Scope to affect the carbon footprint of the LDI portfolio as they are linked to government bonds.
- Data for the credit fund was provided directly by the investment manager of the fund.
- The net-zero committed and SBTi verified figures were provided by the Scheme's fiduciary manager and investment managers, and these figures have been aggregated. Both SBTi aligned, and net-zero aligned figures have been stated.

DC section

- LGIM did not provide Scope 3 coverage but did provide total GHG and carbon footprint. However, given that we were unable to reconcile the carbon emission figures provided by the manager, due to this lack of coverage figure, we have not reported the Scope 3 emissions. The DB investment adviser engaged with the investment manager on this point and was assured that the complete Scope 3 emissions figures would be available in subsequent reporting years.
- The DC investment manager provided net-zero committed and SBTi verified figures for the diversified and growth fund which have all been stated. All figures have been stated.

No estimates have been for emissions where no data is available.

Notes on the metrics calculations

The carbon metrics

The DB investment adviser aggregated the carbon metrics of the Scheme by 'Bucket' for the DB section, and by 'Lifestyle Fund' for the DC section. 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:

$$G = A \times C \times F$$

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

The methodology used follows the industry-standard best-practice established within the Carbon Emissions Template[4].

The following notes apply to the metrics process above:

DB Section:

- The DB investment adviser calculated the metrics for the LDI using the UK Government's carbon footprint using the formula above.
- The carbon footprint used in the calculation of LDI was as recommended by the DWP using Total UK GHG Emissions divided by PPP-adjusted GDP, and assumes 100% coverage based on this methodology.

There are no further comments regarding the DC calculations.

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

[4] 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 Scheme's climate-change risk exposure.

Meaningful data is crucial for us to measure our climate-risk exposure. So, it is important to set a target to improve the coverage of GHG emissions data from the managers. When the data coverage has reached a level that allows more meaningful insights to be drawn from the carbon emissions of the Scheme, we aim to set a more aspirational target, such as reducing carbon footprint.

We have set a target for the DB section to improve the data coverage metric for Scopes 1, 2 and 3 for the non-LDI portfolio. We have also set a target for the DC section to improve the data coverage of the Scope 1 and 2 emissions only. It has not been possible to set a meaningful target for Scope 3 data coverage given the lack of data that has been provided.

DB section

Current data coverage Scopes 1, 2 and 3 (non-LDI portfolio)	2026 data coverage target Scopes 1, 2 and 3 (non-LDI portfolio)
38%	80%

DC section

Current data coverage Scopes 1&2	2026 data coverage target Scopes 1&2
83%	100%

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

What are we doing to reach the target?

The Trustee will engage with the DB fiduciary manager and the DC investment manager to encourage improvements in data coverage**.** Through engagement, it is expected that this will identify opportunities to improve data coverage or investigate alternative sources of data, particularly where there are significant gaps in the data.

How progress will be measured against target?

We will measure our progress against the target in each annual climate disclosures report that we produce. We will look at the overall net gain, as well as the changes in data coverage for individual asset classes and managers.

Appendices

Glossary

Governance	refers to the system by which an organisation is directed and controlled in the interests of shareholders and other stakeholders.[5] 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.[6]
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.[7]
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.[8]
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.[9]
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.[10]

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

Greenhouse gas emissions scope levels[11]	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.[12]
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).[13]
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.[14]
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.[15]

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

Appendix – Climate scenario modelling assumptions

The purpose of the model is to consider the long-term exposure of the Scheme 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.

Our model assumes a deterministic projection of assets and Technical Provisions basis liabilities, using standard actuarial techniques to discount and project expected cashflows.

- It models the full yield curve as this allows for an accurate treatment of the liabilities and realistic modelling of the future distribution of interest rates and inflation. It also allows us to truly assess the sensitivities of the assets and liabilities to changes in interest and inflation rates.
- The parameters in the model vary deterministically with the different scenarios.

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

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

- Other relevant issues such as governance, costs and implementation (including manager selection and due diligence) must be considered when making changes to the investment strategy.

Investment risk is only captured in the deviance from the Base Case, but this is not the only risk that the Scheme faces; other risks include covenant risk, longevity risk, timing of member options, basis risks and operational risks. The model has been set up to capture recent market conditions and views; the model may propose different solutions for the same strategy under different market conditions.

DB Data used

The model projects using the following inputs as at 31 December 2022.

- Market value of assets: £627.6M
- Present value of liabilities: £708.3M
- Deficit: £80.7M

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

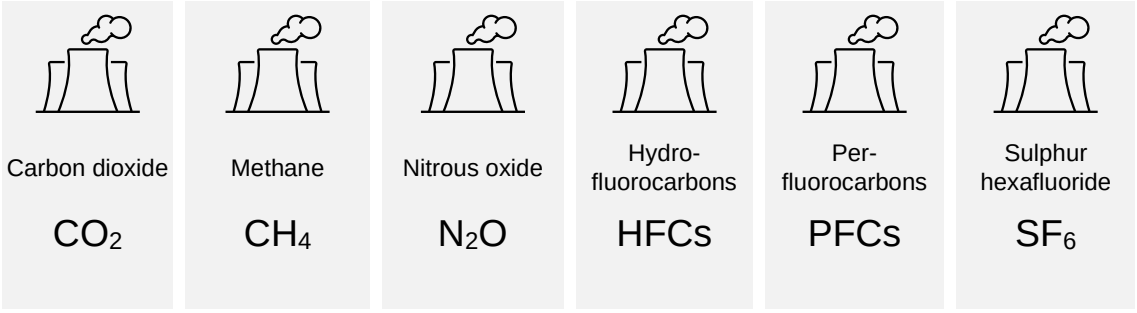
Greenhouse gases in the atmosphere, including water vapour, carbon dioxide, methane, and nitrous oxide, keep the Earth's surface and atmosphere warm because they absorb sunlight and re-emit it as heat in all directions including back down to Earth. Adding more greenhouse gases to the atmosphere makes 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[16] 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.

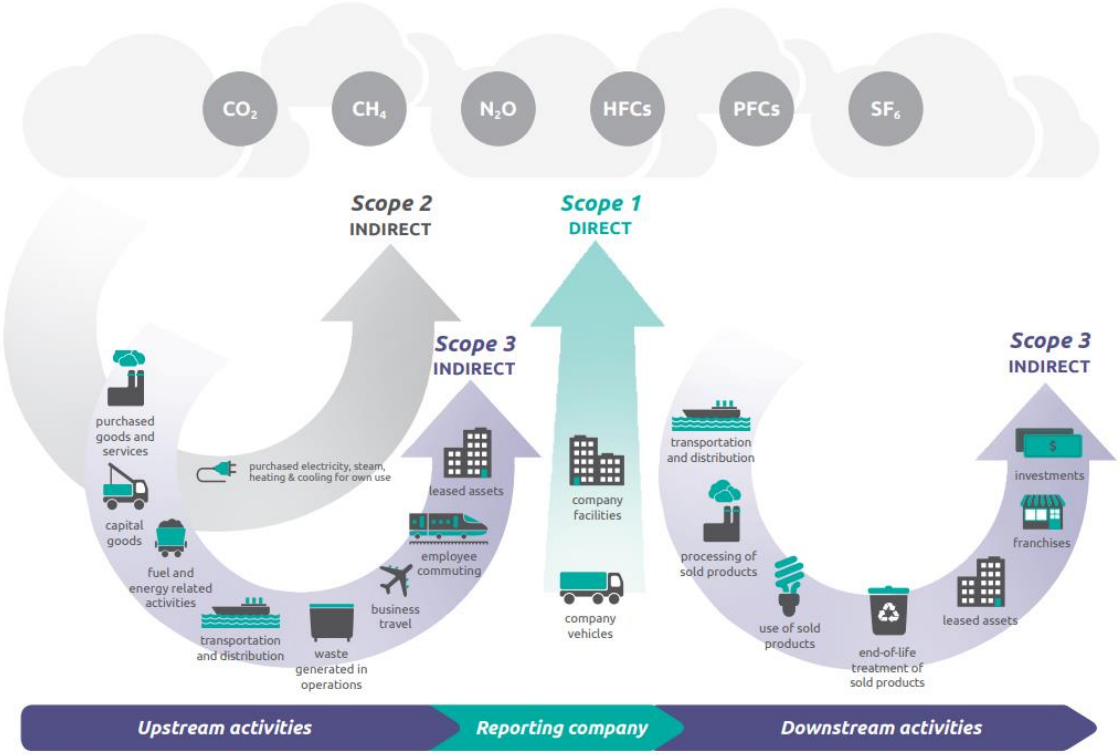
Six main greenhouse gases identified by the Kyoto Protocol



[16] 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