

Taskforce on Climate-related Financial Disclosures Report

Johnson Matthey Employees Pension Scheme
("the Scheme")

Year ending 31 March 2024



Executive summary

This report sets out the Trustee's response and key actions across the four Task Force on Climate-related Financial Disclosures ("TCFD") pillars below.

Governance

Governance around climate-related risks and opportunities

- ESG Policy – Trustee maintains an ESG Policy which sets out Trustee ESG beliefs & implementation framework.
- Climate Delegation Framework – Established by Trustee. Defines roles and responsibilities in relation to climate-related risk.
- Meetings – Trustee Board meets regularly and receives advisor support.
- Training – Trustee has received training on relevant climate risks and opportunities from its Investment Consultant.

Risk Management

Identification, assessment and management of climate-related risks

- Risk register – Trustee is reviewing its risk register and is considering the inclusion of climate-related risks to better identify and assess risks.
- Manager assessments – Investment Consultants conduct annual review of the Scheme's investment managers to identify areas for improvement.
- Stewardship – Trustee has assessed alignment of DB managers' stewardship activity against its set stewardship priorities.
- Dashboard – Trustee, with advice from its Investment Consultants, has developed a climate risk and opportunity dashboard for each Section.

Strategy

Actual and potential impacts of climate risks and opportunities

- Time horizons – Trustee has defined key time horizons for each Section and considered how the Scheme may develop over these periods.
- Risks & opportunities – Trustee has identified relevant climate-related risks and opportunities for each Section over the selected time horizons.
- Scenario analysis – Trustee has conducted scenario analysis to assess the impact of an increase in the global average temperature on assets.
- Covenant impact – Trustee has considered how climate-related risks and opportunities could affect the employer's covenant.

Metrics & Targets

Disclosure of key metrics and targets

- Metrics – Trustee has selected four metrics to report on and collated data against these from the Scheme's investment managers.
- Targets – Trustee has set an appropriate target for each Section with a defined time period for meeting the target.
- Targets – Trustee achieved its interim data quality target for the DB Section and has set a long-term decarbonisation target.
- Targets – Trustee has set a decarbonisation target for the DC Section.

Trustee statement on climate risks and opportunities

Chair statement on behalf of the Trustee

The Trustee recognises that climate change poses a substantial financial risk to the Scheme in the long term, whilst at the same time also presenting unique investment opportunities. It is anticipated that climate change will affect our members, financial markets and society at unprecedented levels. As such, the Trustee understands that it is part of its fiduciary duty to members to address and manage the associated risks and opportunities. As an initial step, we have committed to a "net zero by 2050" target as one of our efforts to guarantee that climate considerations are integrated across our processes and decision-making.

This report sets out our response and key actions across the four TCFD pillars: Governance, Strategy, Risk Management, and Metrics and Targets (as shown on the right).

Previously we have set policies and procedures to provide a framework to manage this risk and capture opportunities over time as the Scheme, including both the Defined Benefit ("DB") and Defined Contribution ("DC") Sections, approaches its long-term objectives. These policies and procedures were reviewed during the year to 31 March 2024 and updated to reflect stewardship best practice implemented by the Trustee.

Over the last couple of years, we have focused on understanding the Scheme's current position and what may be achievable in the future. As part of this, we have analysed all the relevant asset classes invested in by the Scheme. We have also analysed the current DB investment strategies and the "popular" DC arrangements (the default lifestyle and one self-select fund). The remaining self-select funds are not in scope as the assets invested are less than £100m or 10% of total fund value. The scenario analysis was conducted during the year to 31 March 2023; however, we have included it within this report as it remains relevant for the Scheme's strategies. Given the differences in the membership demographics and investment characteristics between the DB and DC Sections, the Trustee has reviewed the Sections separately for scenario analysis, and metrics and targets.



The TCFD Framework encompasses four key pillars:

Governance: Governance around climate-related risks and opportunities.

Strategy: Actual and potential impacts of climate-related risks and opportunities.

Risk Management: The identification, assessment and management of climate-related risks.

Metrics and Targets: Disclosure of key metrics and targets.



Trustee statement on climate risks and opportunities

Chair statement on behalf of the Trustee - continued

Defined Benefit Section

The Trustee continues to focus on consolidating and strengthening the investment strategies for both the Career Average (“CARE”) and Elements Sections. A climate-focused private markets mandate was implemented in the Elements Section over the year in an effort to both benefit from climate related opportunities and also support wider real world climate action. This mandate will support the Trustee in reaching its 42% Carbon Footprint reduction target for the DB Section by 2030.

For existing mandates, the Trustee has focused on using stewardship as a key risk management tool. Over the year, the Trustee conducted a deep dive assessment of its investment managers stewardship activities and their alignment with the Trustee’s stewardship priorities.

Due to the nature of the Sponsor’s business, climate change and related impacts on the chemicals industry would result in significant change for the business. However, if the Sponsor is able to adapt to changing consumer needs and align their product portfolio with the sustainability agenda it should ultimately be a net beneficiary of climate-related change in the medium to long-term. The impact on the Sponsor Covenant (i.e., the Sponsor’s ability to financially support the Scheme should it be required) is regularly monitored by the Scheme’s Covenant adviser.

The potential impact of climate change on Scheme demographics, particularly life expectancy, and the resulting financial effects are considered by the Scheme’s Actuary.

Defined Contribution Section

Investment time horizons vary significantly among members of the DC Section. The Trustee recognises both shorter-term transition risks alongside physical climate risks which are expected to become more prominent in the long-term. The Trustee has and continues to offer members’ funds that directly address these risks both in the default strategy and self-select options.

A strategy review during the previous year resulted in the Trustee deciding to make changes to the global equity portfolio used within the default lifestyle (and also available as a self-select option) that encompasses ESG and climate considerations, resulting in a material reduction in the portfolios carbon footprint. Additionally, the Section’s diversified growth portfolio is on a path to reduce its carbon footprint by 50% by 2030. The Scope 1 & 2 carbon footprint of the overall portfolio is also on track to reduce its carbon footprint by 50% by 2023. As of 30 September 2023, this figure was 53 tonnes of CO2 per million \$ invested versus a baseline of 72 as at 30 September 2021.

In summary – the Trustee is committed to ensuring the best outcomes for Scheme members by addressing the risks and opportunities of climate change and further building the Scheme’s plan for climate action.

Roger Buttery, Chair of the Trustee of the Johnson Matthey Employees Pension Scheme

Climate importance

Why is climate change important for our members?

The ongoing risks associated with climate change are increasingly present across the global economy and financial markets. As a result, we know that the future will look very different for the Scheme and its members. Climate change therefore needs to be at the forefront of our investment thinking and governing decisions.

This presents both risks and opportunities for the Scheme as global decarbonisation is required to mitigate climate change. The decarbonisation action is expected to incur large transition costs, and physical damages are expected if global temperatures continue to rise. This means that whatever comes next, we will face climate-related risks which we need to appropriately manage across both Sections.

Currently the world continues to grapple with rising emissions and we recognise global changes are required to keep global average temperature rises within safe limits. Surpassing these safe limits could mean unprecedented impacts on our global society and economy. This will have an impact on members, financial markets, and the sponsoring employer.

Global decarbonisation efforts and the potential wider impact of climate change will also result in opportunities for the Scheme, as demand for low carbon alternatives rise, as well as the potential for investments in renewables and natural capital. We will assess the appropriateness of these opportunities in alignment with other financially material considerations when making investment decisions.

Climate science

Greenhouse gas (“GHG”) emissions arise from the burning of fossil fuels for purposes such as transport or power. Emissions released into the atmosphere cause warming due to a blanketing effect, impacting the entire climate system.

Current policies in place

Governments have agreed to the Paris Agreement to limit global average temperature rises to well below 2°C, with ambitions towards 1.5°C (versus pre-industrial levels). Further action is required in order to achieve the Paris Agreement goals.

The transition to a low-carbon economy

To decarbonise the global economy, policies, technologies and market preferences are expected to shift in favour of low-carbon solutions.

Physical risks from climate change

Physical risks will arise due to the impacts of climate change, including both sudden onset natural disasters and slower shifts in weather patterns. Such risks are expected to scale up in the long term due to rising global average temperatures.

Overview

TCFD Overview

Governance

Governance around climate-related risks and opportunities

Internal

Trustee – We, the Trustee, hold ultimate responsibility for managing the Scheme. This includes setting the Scheme’s Climate Delegation Framework, which was last updated in November 2023, to ensure Scheme-level climate-related risks and opportunities are well governed.

The Trustee, working with the Scheme’s advisors, provides oversight and manages Environmental, Social and Governance (“ESG”)-related risks as they pertain to the Scheme’s assets to enhance long-term, sustainable financial stability.

The Trustee is responsible for ensuring that investment matters receive a sufficient degree of attention and to improve decision making. The implementation and monitoring of the strategy is a responsibility of the Trustee, as well as facilitation of efficient governance, including the performance and implementation of the DC Section.

External



Investment Consultant - The Scheme’s DB and DC Investment Consultants provide climate-related advice to the Trustee throughout the year, covering the inclusion of climate considerations in the governance arrangements, climate risks and opportunities, the analysis of climate metrics, and providing training on the ever-evolving climate science (as well as regulatory updates).

Actuary – The Scheme’s Actuary assesses climate-related risks and opportunities in relation to the DB Section and the implications for the Section’s funding and long-term objective.

Other Advisors - The Scheme’s Covenant Advisor and Legal Advisor provide advice to the Trustee on climate-related regulation, risks and opportunities.

Investment Managers (including DC Provider) - The Trustee has delegated responsibility to the Scheme’s investment managers, and DC Provider, for managing the Scheme’s assets in line with the agreed mandates. This includes identifying, assessing and managing climate-related risks and opportunities in relation to the Scheme’s investments, as well as engaging with portfolio companies in the best interests of the Scheme’s members and providing the agreed climate-related metrics for both Sections.

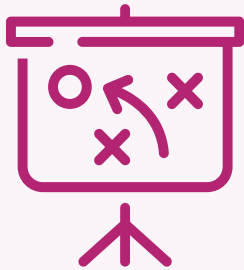
TCFD Overview

Strategy

Actual and potential impacts of climate risks and opportunities

The Trustee has identified the key time horizons relevant to each Section of the Scheme, which are detailed later in this report. These have been determined by a blended view of the climate outlook and membership demographics.

In March 2023, the Trustee evaluated the potential risks and opportunities over the agreed timeframes, including analysis of the relevant Section’s position under multiple climate scenarios, two of which are shown below for the DB and DC Sections, respectively (the analysis remains appropriate given there has been no material change to the strategies). This follows a Red, Amber, Green rating to illustrate the estimated magnitude of the potential impacts from a climate transition or climate inaction on the Scheme. A more detailed assessment analysed across the different time horizons is included later in the report.



DB Section – In late 2023, the Trustee implemented a climate-focused private markets mandate in the Elements Section (in line with the strategic asset allocation). Whilst this investment may increase the overall carbon footprint for the Scheme in the short term, it should help to reduce emissions over the long term given its focus on climate impact opportunities and support of climate action. The Trustee is considering how they can further integrate ESG and climate-related opportunities in the future.

CARE (Long Term, 17 years)	Assets	Liabilities	Sponsor
Net Zero 2050	Low	Medium	Medium
Current Policies	Medium	Low	Medium
Elements (VL Term, 27 years)	Assets	Liabilities	Sponsor
Net Zero 2050	Medium	Medium	High
Current Policies	Medium	Low	Medium

Note: impact of physical risks on assets would be higher if looking over a longer period or if risks materialise earlier than assumed.

DC Section – The Trustee also implemented changes within the DC Section to help achieve better outcomes for members. As part of a wider strategy review, the Trustee decided to implement changes to its global equity portfolio, reducing the portfolio’s carbon footprint, which makes up 100% of assets in the default lifestyle strategy for members more than 25 years from retirement and is available as a self-select option. The Section’s DGF portfolio, used by members within 25 years of retirement is already on a path to reduce its carbon footprint by 2030. Risks in relation to the default strategy are expected to reduce over time as the member approaches retirement and their strategy de-risks.

Default Lifestyle	New joiner	Pre-retirement
Climate Emergency	High	Medium
Least Common Denominator	High	Low

Note: impacts will vary depending on individual member circumstances, such as term to retirement.

See pages 16 & 17 for definitions and explanations of the different scenarios assessed.

Key (risk level):

Low	Low
Medium	Medium
High	High

TCFD Overview

Risk Management

Identification, assessment and management of climate-related risks

The Trustee has a framework to ensure risks are managed holistically. This includes analysis of climate risks at the overall Scheme level and ensuring the Scheme's investment managers are considering ESG risks and opportunities in line with the Trustee's expectations.

Scheme level

The Trustee annually reviews the risk register and has received advice on potential issues and potential mitigating actions relating to:

- Sponsor Covenant
- Investment strategy
- Asset and investment manager allocations
- Funding

In addition to the risk register, the Trustee receives regular advice from its advisors on climate considerations.

Underlying investment mandates

On an annual basis, the DB and DC Investment Consultants provide an ESG assessment for the Scheme's mandates, analysing the level of ESG integration for each.

The Trustee receives more frequent updates on material changes to the Scheme's investment managers' ESG capabilities, where necessary.



Underlying investment mandates (continued)

The assessment of the DB Section's mandates has a strong focus on climate-related risks and results in the provision of mandate- and Section-level ESG and climate scores. The Trustee has set specific improvement targets for these scores, and our Investment Consultant, on behalf of the Trustee, use the results of these assessments to engage with our investment managers on these areas to improve.

During the year, the Trustee conducted an in-depth review of its DB investment managers' stewardship activities and their alignment with the Trustee's stewardship priorities. The review identified where priority risks might lie within the Scheme's mandates and concluded that there is room for improvement for all the managers. The Trustee aims to engage with all the investment managers on this, either directly or via the Investment Consultant.

Case study - Multi-Asset Credit (DB CARE Section)

The Trustee, in collaboration with its Investment Consultant, has developed a clear view of best practice expectations for ESG integration within Multi-Asset Credit. Using this knowledge, areas for improvement were identified and communicated clearly to both managers in the DB section, specific to their mandates. The managers provided a formal response to the Trustee covering what progress they have made against the identified action points over the year. The Trustee has proposed further actions for improvement this year and will monitor their progress as part of the annual ESG assessment in Q1 2025.

TCFD Overview

Metrics & Targets

Disclosure of key metrics and targets



The Trustee has selected, gathered and assessed the four climate metrics in the table below. For consistency, the Trustee decided to monitor the same set of metrics for the DB Section and the DC Section's default lifestyle strategy and "popular" self-select fund. Reporting of Scope 3 emissions, where available, is included in the main body of the report.

The DB Section exceeded its interim data quality target over the year. To better align with the DC Section and the ambitions of the Company, the Trustee has set a decarbonisation target to reduce the carbon footprint of the DB Section (excluding LDI) by 42% (vs the baseline) by 2030. The Trustee set a decarbonisation target for the DC Section in the previous year given its already high coverage of data quality and has made progress against this target.

Defined Benefit Section

Metrics	Total GHG emissions (scope 1&2)		Carbon footprint (scope 1&2)	
	Metric tCO ₂ e	Coverage	Metric tCO ₂ e/\$m	Coverage
CARE	94,388	71%	56	71%
Elements	8,137	85%	33	86%

Metrics	Implied temperature rise		Data quality, % of scope 1&2 emissions that are:			
	Metric °C	Coverage	Verified	Reported	Estimated	Unavailable
CARE	2.2	53%	0%	32%	39%	29%
Elements	2.4	80%	0%	56%	29%	14%

Carbon footprint reduction target	Baseline 30/09/2023	2030 Target
DB Section	51	-42%

Defined Contribution Section

Metrics	Total GHG emissions (scope 1&2)		Carbon footprint (scope 1&2)	
	Metric tCO ₂ e	Coverage	Metric tCO ₂ e/\$m	Coverage
Equity portfolio (default)	3,936	99%	33	99%
DGF portfolio (default)	8,157	82%	93	82%
Cash fund (default)	5	90%	1	90%
Overseas Equity fund	1,146	99%	37	99%

Metrics	Implied temperature rise		Data quality, % of scope 1&2 emissions that are:			
	Metric °C	Coverage	Verified	Reported	Estimated	Unavailable
Equity portfolio	-	-	0%	93%	6%	1%
DGF portfolio	2.8	77%	0%	68%	14%	18%
Cash fund	-	-	0%	81%	9%	10%
Overseas Equity	-	-	0%	80%	19%	1%

Carbon footprint reduction target	Baseline 30/09/2021	Progress 30/09/2023	2030 Target
DC Section	72	53 (-26%)	-50%

What's Next?



Building on the opportunities

Over recent years, the Trustee has reviewed opportunities to better integrate climate considerations into the investment strategies. This has included a climate-tilted credit portfolio and a diversified private markets fund in relation to the DB Section. It also included changes to the global equity portfolio used within the DC Section's default lifestyle. We will continue to consider new suitable opportunities whilst engaging with the Scheme's existing investment managers.



Focus on improving data

We recognise that high-quality data relating to climate metrics is important for feeding into our decision making. Data quality for the DB Section improved over the year, exceeding the interim data quality target set by the Trustee. However, there is room for further improvements, specifically on Scope 3 emissions data. The Trustee is engaging with its investment managers, via its Investment Consultants, to collaborate on this.



Evolving our target

Following improved data quality within the DB Section, the Trustee has now adopted decarbonisation targets across the whole Scheme. Initially this was implemented for the DC assets only. The newly adopted decarbonisation target is ambitious, practical and in line with best practice, and will feed into the Trustee's strategic thinking.



Understanding Sponsor risk and opportunities

Our Sponsoring Employer is in an industry that will play a role in the transition to a low carbon economy. We are working with our Sponsoring Employer and Advisors to better understand the future direction of the business and the potential opportunities this may bring. We will continue to monitor the possible impact of these on the Covenant and how this could impact the DB Section's investment strategy.

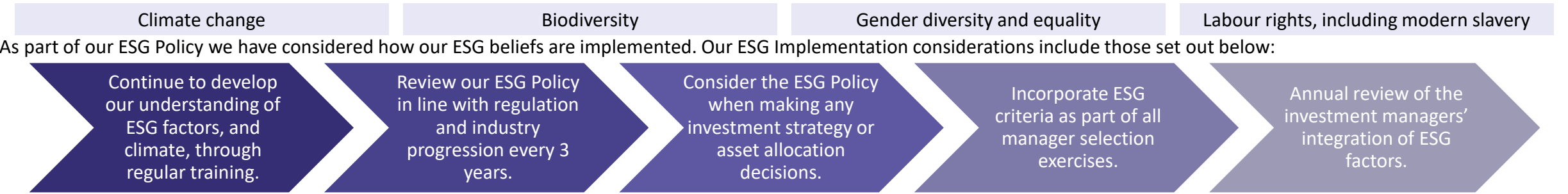
TCFD Recommendations – Governance

Governance

Describe the Trustee Board’s oversight of climate-related risks and opportunities

Climate-related beliefs

The Trustee maintains an ESG Policy that sets out the Trustee’s ESG beliefs and how these are implemented. As part of this, the Trustee has identified two main ESG focus areas, including climate change risk and the transition to a low carbon economy. The aim is to align the investment strategy with being net zero by 2050, or earlier if possible, whilst maintaining sufficient diversification. The Trustee will measure the performance of the Scheme’s mandates against this target with quantifiable metrics. Over the year, the Trustee added a stewardship section to direct the stewardship efforts of its investment managers in alignment with the Trustee’s ESG beliefs. The below sets out the Trustee’s agreed stewardship priorities, which align with the Trustee’s ESG focus areas:



Details on the review of the investment managers can be found on pages 34 and 35. The Trustee also agreed a Climate Delegation framework, further detail provided overleaf.

Oversight responsibilities of the Trustee Board

Overall responsibility for ESG considerations (including climate-related) lies with the Trustee. The Trustee Board meets at least quarterly and receives updates and support from its Scheme Actuary, Investment Consultants, Legal Counsel and Covenant Adviser on ESG and climate change topics. The Trustee ensures sufficient time is spent on ESG and climate change topics to best manage climate-related risks and opportunities, with ESG integration considered in some form at every Trustee Board meeting. This is because the Trustee has strong sustainable investment principles and the Sponsor has ambitious Net Zero commitments, therefore the Trustee believes climate-related risks and opportunities are central to future returns for the Pension scheme, to the beliefs of the Company and to many of the stakeholders in the Scheme. The Trustee will consider the quality of advice the advisors are able to provide from a climate perspective when reviewing their appointments. Where appropriate, the Trustee will challenge the advice provided, however this was not relevant over the reporting year.

Climate-related training

During the year, the Scheme’s DB Investment Consultant delivered climate-related training sessions, including on updated TCFD metrics analysis, as well as providing training and support to the Trustee on the new stewardship regulations. This included a paper delivered in Q1 2023, which provided an overview of the regulations and suggested appropriate priority areas for the Scheme. Following this, the Investment Consultant conducted a deep dive to assess the Scheme’s investment managers stewardship activities and their alignment to the Trustee’s agreed priorities.

Governance

Describe the Trustee Board's role in assessing and managing climate-related risks and opportunities

Climate Delegation Framework

Over 2022, the Trustee agreed a Climate Delegation Framework which sets out the roles and responsibilities of various stakeholders for managing climate-related risks and opportunities. The Trustee has the ultimate responsibility for ensuring Scheme-level climate-related risks and opportunities are governed well. Our Climate Delegation Framework sets out the governance process we have agreed to ensure we have oversight of these risks and opportunities that are relevant to the Scheme. This framework is reviewed, alongside the ESG Policy, on at least a triennial basis. The framework was reviewed and updated in November 2023 with the inclusion of roles and responsibilities with respect to the Trustee's stewardship policies and priorities. The key points from the Climate Delegation Framework are laid out below.

Roles and Responsibilities

Trustee	<ul style="list-style-type: none">– Incorporate climate-related considerations into the governance frameworks, ongoing risk management, strategic decisions and monitoring.– Identify climate-related risks and opportunities, and set and monitor metrics to manage them.– Receive regular training to maintain sufficient knowledge and understanding.– Factor in climate-related risk management capabilities into the selection, review and monitoring of investment managers and the DC Provider.– Review the management of the Scheme's investments against the agreed stewardship priorities.	DB and DC Investment Consultant	<ul style="list-style-type: none">– Advise on the inclusion of climate considerations in the Scheme's governance arrangements, investment strategy, risk management and monitoring.– Advise how climate-related risks and opportunities might affect the Scheme's exposure to different asset classes over the short, medium and long term, and the implications for the Scheme's strategy.– Assist the Trustee in the selection and monitoring of climate-related metrics and targets in relation to the Scheme's investments, including engaging with the Scheme's investment managers regarding the provision of the agreed metrics.– Provide training and relevant updates to the Trustee on climate-related matters.– Assist with the preparation of the Trustee's TCFD report, including climate metrics and target, and climate scenario analysis.– Assist the Trustee in reviewing the Scheme's investment managers against the agreed stewardship priorities and provide a stewardship report assessing their alignment
Investment Managers	<ul style="list-style-type: none">– Identify, assess and manage climate-related risks and opportunities.– Exercise voting rights and engage with portfolio companies in the best interests of the Scheme's members.– Provide the agreed climate-related metrics to the Investment Consultants, focusing on increasing their quality and availability.– Provide data to assist the Scheme's Investment Consultants in assessing the management of the Scheme's assets against the agreed stewardship priorities.		
Scheme Actuary	<ul style="list-style-type: none">– Assess climate-related risks and opportunities in relation to the DB funding position over the short, medium and long term and the implications for the DB Scheme's funding and long-term objective.	Legal Advisors	<ul style="list-style-type: none">– Provide training on climate-related legal matters, including ensuring the Trustee is aware of its statutory and fiduciary obligations.– Assist in the documentation of the arrangements with the Scheme's third parties with respect to climate-related matters.– Assist with the preparation of the Trustee's annual TCFD report.

Conformity to the Climate Delegation Framework is reviewed on an ongoing basis, as well as through the putting in place of climate-related objectives where relevant.

TCFD Recommendations – Strategy

Strategy

Since scenario analysis was carried out, there have been no material changes to the Fund’s investment and funding strategy, so we consider that the scenario analysis remains relevant and useful for decision making. The quantitative analysis in the remainder of this section presents the analysis originally completed for the 2023 TCFD report.

Describe the resilience of the Fund’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

Agree climate scenarios

Climate scenarios are hypothetical futures, which can apply different levels of climate action and produce a unique combination of physical and transition risk. The Trustee, in conjunction with its Investment Consultants, chose the below scenarios to provide a balanced set of hypothetical constructs with which to analyse the potential risks and opportunities across the Scheme’s portfolios. Forward-looking analysis always involves uncertainty, however these scenarios help to examine different possible outcomes in terms of emissions, global average temperatures, and associated transition and physical risks, for example.

DB Section - The Trustee, via the DB Investment Consultant, has assessed the potential impacts on the Section’s assets and liabilities under three different climate scenarios defined by the Network for Greening the Financial System (“NGFS”), and interpreted and modelled by Moody’s Analytics.

Net Zero 2050

- Temperatures kept to a 1.5°C rise this century (Paris-aligned).
- CO₂ emissions reach net zero in 2050 globally but only some regions achieve global GHG net zero.
- Relatively high transition costs incurred in near term but physical damages are minimised.

Divergent Net Zero

- Temperatures kept to a 1.5°C rise this century (Paris-aligned).
- Divergence in policies across sectors results in higher transition costs e.g. the transport sector instils more stringent policies than the energy sector.
- Physical damages are minimised.

Current Policies

- World largely fails to meet the Paris Agreement, resulting in 3.8°C of warming this century.
- Whilst there are lower transition costs, higher physical risks arise due to rising global temperatures, with shifts in weather patterns and an increased incidence of natural disaster.

DC Section – The Trustee, via the DC Investment Consultant, has assessed the potential impacts on the Section’s assets under four different climate scenarios spanning the range of uncertainties outlined by the NGFS and the Climate Action Tracker.

Climate Emergency

- Aggressive policy and extensive technological shifts mean temperatures are kept to a 1.5°C rise (Paris-aligned).
- Minimal physical damages but high transition costs in near term.

Global Coordinated Action

- Policies to reduce emissions are agreed immediately and implemented globally to limit warming to 2.0°C (Paris-aligned).
- Relatively low transition costs and physical damages.

Inevitable Policy Response

- Rapid policy shift in mid/late 2020s implemented in a disorderly manner but warming is kept to 2.0°C (Paris-aligned).
- Physical damages are minimised but transition costs are high.

Lowest Common Denominator

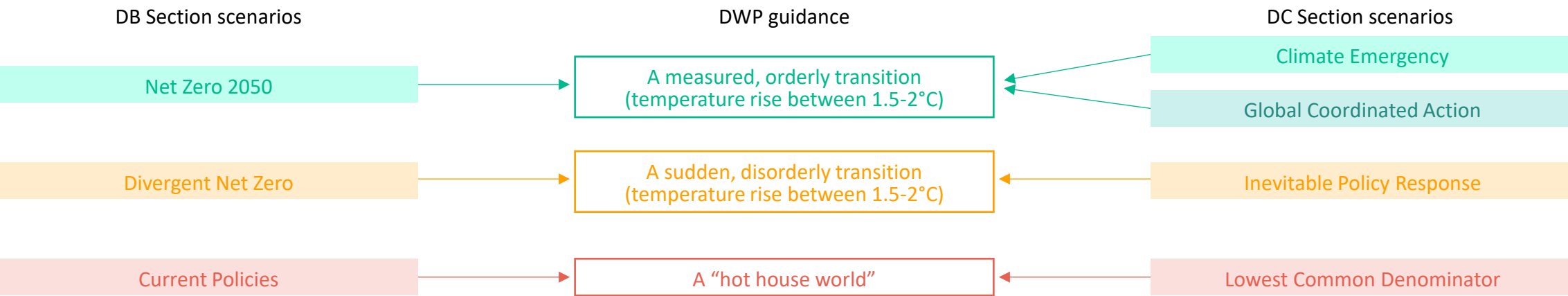
- Only current policies continue, resulting in 3.5°C of warming this century.
- Lower transition costs but higher physical risks due to the rising temperatures.

Strategy

Describe the resilience of the Fund’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

Agree climate scenarios – continued

As the Scheme has two different Investment Consultants for the Defined Benefit and Defined Contribution Sections, and two sets of scenarios, the Trustee has mapped the previous slide’s scenarios across to each other using the Department for Work and Pension’s (“DWP’s”) guidance to allow for comparison. However, we are aware that whilst they broadly reflect the same scenario, the underlying assumptions are different and may result in different outcomes.



Limitations

The Trustee recognises that there are limitations involved within investment strategy and climate scenario modelling given the inherent uncertainty around the future impact of climate change and the need to use assumptions which are subjective. For example, the only risk factors considered in the modelling are those that affect the values of pension schemes’ assets so results should be viewed alongside other qualitative considerations. The Trustee therefore uses the scenario analysis for comparative purposes rather than analysing the absolute magnitude of the results, to help understand some of the possible impacts of climate-related risks. Further detail can be found in the appendix.

Strategy

Describe the climate-related risks and opportunities the Trustee has identified over the short, medium and long term

Agreed timeframes

Climate considerations differ depending on the timeframe in question; we have identified timeframes that are relevant to the Scheme and considered material climate-related risks and opportunities under each of these. In the year to 31 March 2023, we identified the following timeframes via a blended view of the climate outlook, membership demographics, the funding position, the long-term objective (“LTO”), and the ability to pay benefits. In the shorter term, we expect transition risks to be greatest. However, in the longer-term, we expect physical risks to increasingly manifest and become more important. These timeframes remain appropriate this year.

DB Section

Timeframe	Investment Horizon	Climate Horizon	Risks to Asset Strategies	Risks to Liabilities	Risks to Sponsor
Short term <i>3 years</i>	Actuarial review cycle, review of LTO and strategy	Company target setting, improvement in data quality, government responses to COP27	Transitional risks such as the costs associated with global decarbonisation anticipated, carbon pricing and regulation	Changes to yields (as for assets), inflation and longevity expectations due to expected transition costs or rising physical risks	The need to adapt to a changing chemical industry and the wider global transition
Medium term <i>7 years</i>	LTO target & consider insurance (CARE)	Companies hitting interim 2030 targets, alignment with Sustainable Development Goals (SDGs*)			
Long term <i>17 years</i>	Duration of Scheme’s liabilities (CARE)	Johnson Matthey Net Zero by 2040 target	Physical risks such as damage to assets caused by extreme weather events anticipated		
Very long term <i>27 years</i>	Potential for Elements Section to still be open	Physical damages incurred, Net Zero by 2050 target			

DC Section – Strawman members

Timeframe	Investment Horizon	Climate Horizon	Risks to Asset Strategy
Short term <i>1-5 years</i>	Members at/approaching retirement	Company target setting, improvement in data quality, government responses to COP27, alignment with SDGs	Transitional risks arising from economic and societal changes to combat or adapt to climate change
Medium term <i>20 years</i>	Mid career members	Johnson Matthey Net Zero by 2040 target	Physical risks such as damage caused by extreme weather events
Long term <i>40 years</i>	New joiner members	Physical damages incurred, Net Zero by 2050 target	

*SDGs: 15 goals agreed by the UN in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 people enjoy peace and prosperity.

Strategy

Describe the climate-related risks and opportunities the Trustee has identified over the short, medium and long term

Risks and opportunities summary

Members will be invested over varying time horizons (depending on their time to, and in, retirement) and over this time, there will be long-term climate-related risks, particularly likely if net zero targets are not met. Climate-related risks can be broadly categorised into two groups that must be effectively managed for the benefit of members. Opportunities can be identified in both the CARE and Elements DB Sections as well as in the DC Section. These are detailed later in this report.

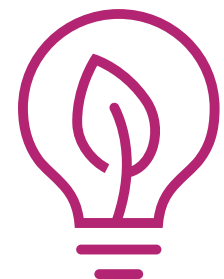
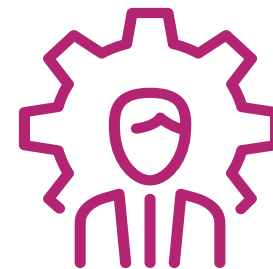
Risks

- Transition risks arising from efforts made to transition towards a net zero economy (both domestically and globally) to limit climate change. These are generally expected to occur in the medium and short term.
- Physical risks relate to the direct effects of climate change on the Section and its members. These risks are expected to be longer-term in nature and either acute (including increased severity of extreme weather events, such as cyclones, hurricanes, or floods) or chronic (e.g. sustained higher temperatures caused by longer-term shifts in climate patterns that could impact the mortality of Fund members). Physical effects could have varying impacts on the Section - the direction and size of which is unlikely to be clear for sometime.

Opportunities

Opportunities will arise to support sustainable growth, development and investment across industries as part of a move towards net-zero economies.

For example, companies that proactively adapt to the above risks or develop solutions that work to address these risks are likely to outperform in the long-term relative to companies who are less able to adapt to these risks.



DB Section

DB Section

Describe the climate-related risks and opportunities the Trustee has identified over the short, medium and long term

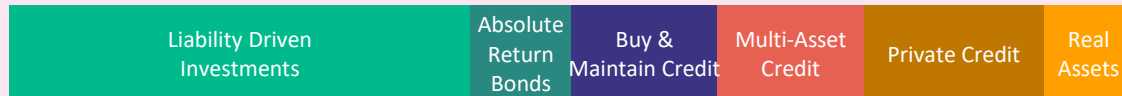
The Trustee has implemented some changes to investment strategies for both the CARE and Elements Sections over the past few years, reflecting their different investment time horizons and risk profiles.

Investment strategy – CARE

As noted in the previous TCFD report, over the year to 31 March 2023, a Corporate Bond mandate, invested in by both DB Sections, was structured to embed climate and SDG alignment objectives within the investment guidelines. This included a 50% reduction in GHG emissions in comparison to the previous portfolio and achieving a temperature alignment of 1.5°C by 2030.

The Trustee continues to engage with its investment managers to encourage improvements in relation to ESG risk management (including climate change) and monitor progress.

Current investment strategy:

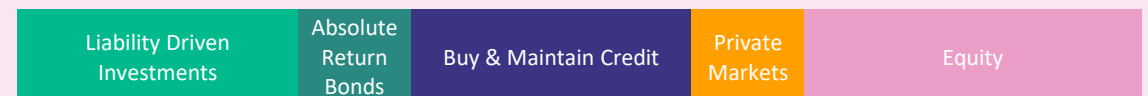


Investment strategy – Elements

In late 2023, the Trustee implemented a climate-focused Diversified Private Markets mandate with the aim of capturing the benefits of climate-aligned investment opportunities. This mandate will also support the Trustee in reaching their 42% Carbon Footprint reduction target for both DB Sections (excl. LDI assets) by 2030.

The Trustee captured this mandate within their scenario analysis conducted during the year to 31 March 2023, as part of the Section's target investment strategy. As such, it remains appropriate and has been included in this report.

Current investment strategy:



Impact on liabilities

In addition to the risks to the Scheme's investments, the Trustee recognises that the changes in how long members are expected to live and draw their pensions from the Scheme ("longevity risk") is a potentially material source of risk to the funding strategy for both the CARE and Elements Section. The Scheme Actuary assesses this risk and the potential impacts different climate scenarios could result in over the different time periods. Due to the time it may take to see the material impacts of climate change, younger members are potentially much more affected by climate risks than older members, at or nearer to retirement.

The Scheme Actuary's modelling, conducted in the previous reporting year but remaining appropriate, indicates the following scenario outcomes:

- A temperature rise of 1.5-2°C might increase Scheme liabilities by 5.5% and increase life expectancy by 22 months for older generations
- A temperature rise of 3.5-4°C might decrease Scheme liabilities by 2.5% and decrease life expectancy by 5 years for younger generations

Based on this analysis, mortality changes arising from the direct and indirect impact of climate change may be material to the funding strategy longer term. The Trustee will review this via its Scheme Actuary.

DB Section

Describe the climate-related risks and opportunities the Trustee has identified over the short, medium and long term

Impact on the Sponsor

We have engaged with our Covenant Adviser to assess and monitor the potential impact of climate risks and opportunities on Covenant strength over the short, medium and long term. As a result of the assessment conducted in the year to 31 March 2023, the Scheme has limited Covenant exposure due to having a strong funding position, but it does continue to run some investment risk. The Trustee is comfortable that this analysis remains appropriate.

Based on analysis conducted by Johnson Matthey Plc (“JM”), the sectors in which JM operates should, on balance, be the net beneficiary of climate-related risk / legislation over the medium / long term. Therefore, as long as JM is able to adapt to changing consumer needs, climate-related risks should not materially impact the longevity of JM’s employer covenant. To address changing demands, JM has budgeted capex of up to c.£300m for net zero transition.

The Sponsor has identified the physical and transition risks (shown on the right) and opportunities, disclosing them in its TCFD report. JM groups its physical risks into two categories:

- Acute – considered to be extreme events such as tropical cyclones, severe flooding events, heatwaves, and fires; and
- Chronic – considered to be more gradual events such as rising sea levels, increased temperature, and rainfall.

The key physical risks that have been identified relate to damages to sites, assets and production, as well as potential supply chain disruption. There is a greater risk of these key physical risks materialising under the Current Policies scenario. JM’s operations are well diversified and cover multiple geographies and as a result JM considers that acute risks are unlikely to materially impact its key sites. Chronic risks however are likely to have a more material impact on the business with trading and supply chains likely to be directly impacted.

JM is already invested in developing sustainable solutions and is therefore well placed to benefit from climate opportunities. Therefore, JM’s main risk appears to be in relation to strategy execution, ensuring new products meet customer needs and allow JM to maintain a competitive advantage.

Physical risks
Disruption to operations resulting in damage to or loss of assets, increased costs and harm to employees
Disruption to supply chain (upstream and downstream) hampering access to strategic raw materials (including metals) and products, and increasing costs
Transition risks
Changing customer and consumer demand for products
Increasing demand for low-carbon manufacturing and recycling of key materials
Increasing carbon taxation
Increasing stakeholder expectations of corporate climate policy and performance

DB Section

Net Zero 2050 Divergent Net Zero Current Policies

Describe the resilience of the Scheme's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

Climate scenario analysis: total portfolio – impact on funding position relative to baseline scenario

The Trustee conducted this analysis in the year to 31 March 2023. It is comfortable that this analysis remains appropriate as the investment strategy has remained consistent and it is within regulatory requirement. Under all climate scenarios, the Section's funding position is expected to deteriorate compared to the baseline – where there are no expected physical or transitional costs from climate change.

Over the short term, the expected impact on the Section's funding position is expected to be relatively modest, with the exception of the Divergent Net Zero scenario for CARE, relative to wider investment risks. Due to the complexity of the model, the Section's asset allocations were assumed to remain static; however, the Trustee analysed asset class specific impacts overleaf to understand how the portfolio's climate risk might evolve.

Over the shorter and medium term, the costs associated with the transition to a lower carbon economy are clear within the Net Zero 2050 and Divergent Net Zero scenarios. This reinforces the focus on investing in companies that are prepared for the transition, where transition risks are minimised.

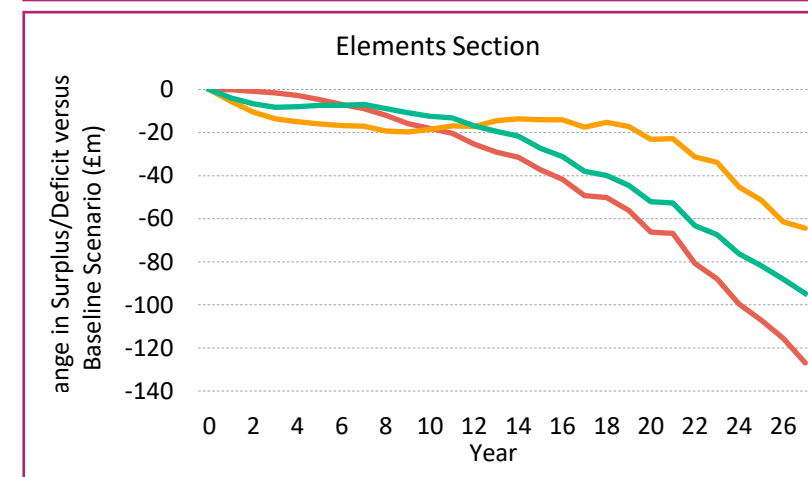
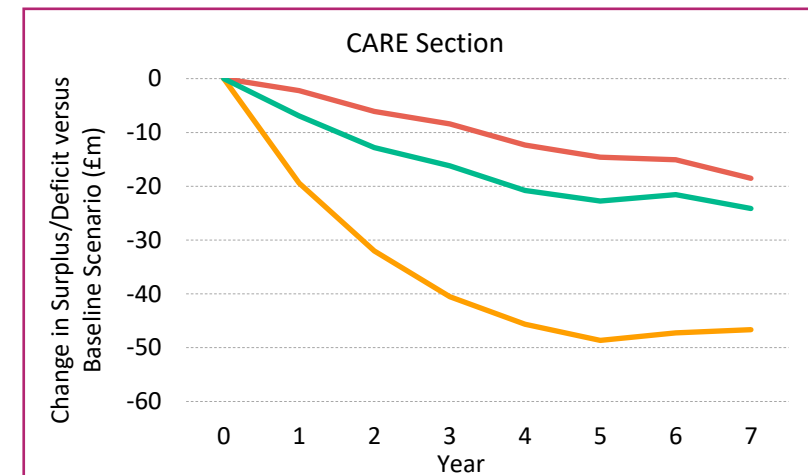
Whilst impacts under the Current Policies scenario are minimal over the shorter term/potential life of the CARE Section, consideration should be given to the wider implications of this scenario. Over the longer term, from c.2040 onwards, the costs relating to physical damages are significant within the Current Policies scenario, with temperatures reaching a c. 2.4°C rise above pre-industrial levels by the end of 2050. The Trustee recognises this modelling is based on assumptions and more detail is provided in the appendix.

The Trustee, Sponsoring Company and Actuary are in regular communication regarding Scheme funding. Current funding levels are such that the Scheme currently requires minimal contributions, undertakes regular journey planning and expects there will be low reliance on the Sponsoring Company in the future. As such, climate risks to the funding strategy are expected to be largely mitigated.

The Baseline scenario assumes no transition or physical impacts of climate change i.e. a climate neutral scenario.

Source: DB Investment Consultant, Moody's. This is based on stochastic modelling, with the median outcome shown. CARE liabilities are modelled on a Gilts +0.5% basis (self-sufficiency). Elements liabilities are modelled on the Technical Provisions basis (Gilts+1.5%). Whilst we have modelled the potential physical and abatement costs over the next 27 years, in theory, markets may price these in sooner. The model's projections are sensitive to the underlying methodology and assumptions.

No guarantee can be offered that actual outcomes will fall within the range of simulated results. Due to the long projection period, the model's outcomes are particularly reliant upon the underlying assumptions. Therefore, more attention should be paid to the relative comparisons between different projections than to the absolute magnitude of the results.



DB Section

Describe the resilience of the Scheme’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

Climate scenario analysis: asset classes

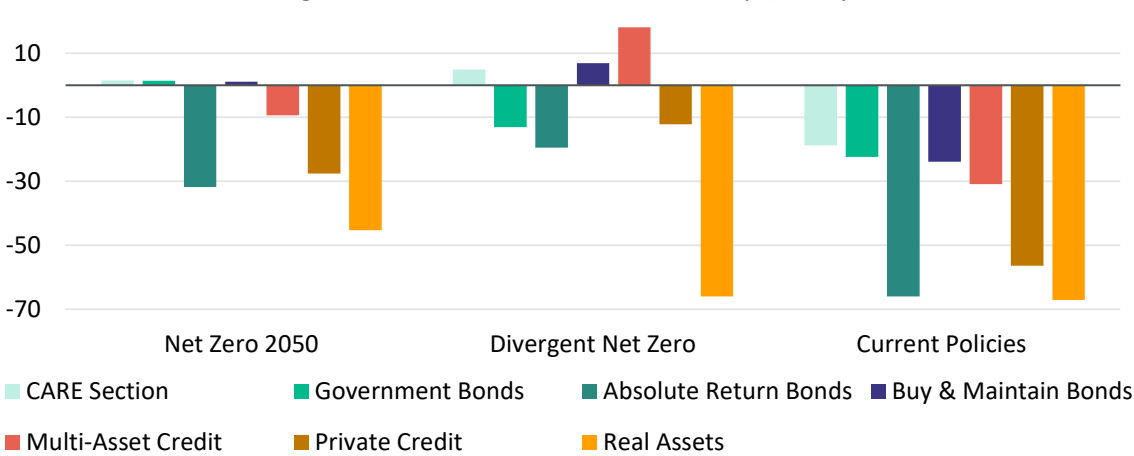
The Trustee considers the isolated impact on different assets to understand which allocations might contribute to the Section’s climate risk and how this might evolve over time. This analysis covered all of the asset classes in the target investment strategies for each Section, which remains appropriate for the current reporting year.

On a relative basis, equities are expected to experience first-wave impacts from climate change. In the near term this will be dominated by the risk of a transition to a low carbon economy creating a drag on markets. As part of the recent investment strategy review, the CARE Section removed its allocation to listed equities, materially de-risking the asset allocation. The Elements still has a signification allocation to equities, however the assets have been transitioned to a Paris-aligned fund which the Trustee expects to reduce risk, relative to a normal World Equity fund.

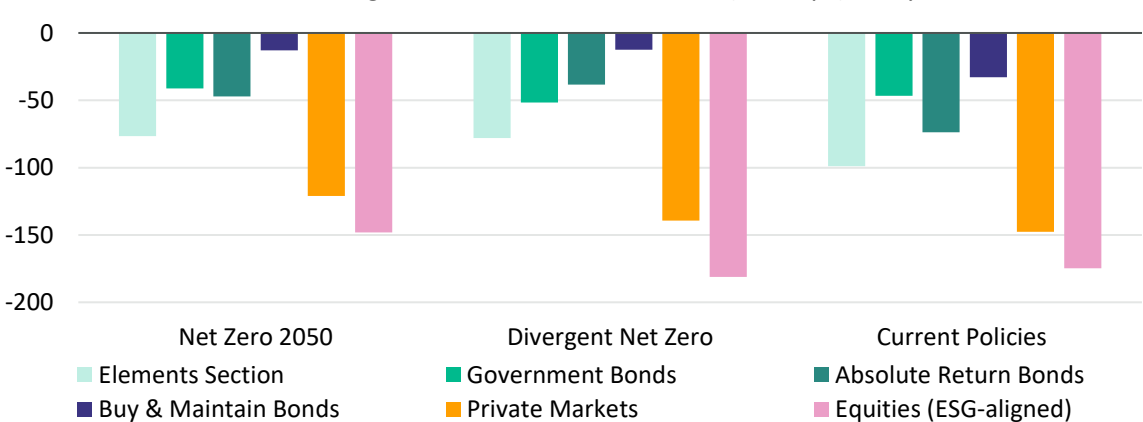
In addition from the CARE Section’s perspective, real assets face the highest risk on an absolute basis across all scenarios. The allocation to real assets is expected to reduce over time as the Section further de-risks.

The delayed impact of a disorderly transition can be seen over the very long-term (27 years) as the two net zero scenarios are expected to have delivered the same outcome by 2050, however the Divergent Net Zero will have incurred higher transition costs.

CARE Section: Return drag relative to Baseline scenario (ann. bps) - 17 years






Elements Section: Return drag relative to Baseline scenario (ann. bps) - 27 years



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 Source: DB Investment Consultant, Moody's. This is based on stochastic modelling, with the median outcome shown. Section return includes LDI allocation.
 Note that annualised return drags are shown but costs and impacts in reality won't be uniform. Whilst we have modelled the potential physical and abatement costs over the next 27 years, in theory, markets may price these in sooner.
 The model's projections are sensitive to the underlying methodology and assumptions. No guarantee can be offered that actual outcomes will fall within the range of simulated results.

DB Strategy - CARE

Low 
Average 
High 

Describe the impact of climate-related risks and opportunities on the Scheme’s assets, liabilities, and Sponsor

Materiality of climate-related risks and opportunities

The Trustee, in conjunction with its Investment Consultant, has used a Red, Amber, Green rating scale to illustrate the likely magnitude of the potential impacts of climate-related risks and opportunities across the different time horizons. Whilst we have not undertaken updated climate scenario analysis this year as we are comfortable that it remains appropriate, we consider climate-related risks and opportunities as part of our discussions with our Investment Consultant. Please find Elements Section matrix in the appendix.

Assets – The CARE Section’s current assets are well diversified and are expected to react differently to various climate scenarios. The impact is expected to change over the longer term in line with the Section’s de-risking strategy.

Liabilities – The liabilities are well hedged and protected from movements in yields and inflation. Potential changes in longevity assumptions are a material risk.

Covenant – Due to the nature of the Sponsor’s business area, it is expected to be exposed to climate risks and opportunities over the longer term.

	Timeframe (years)	Government Bonds	Absolute Return Bonds	B&M Credit	MAC	Private Credit	Real Assets	Liabilities	Sponsor
Transitional (net zero scenario*)	Short term (3)								
	Medium term (7)								
	Long term (17)								
Physical (current policies scenario)	Short term (3)								
	Medium term (7)								
	Long term (17)								
Opportunities		Mandate permits the use of green gilts	Opportunity to be replaced with a sustainable liquid credit mandate	Investment guidelines include climate and UN SDG alignment objectives	Opportunity to replace the allocation with sustainable MAC	Limited scope for climate-related opportunities	Limited scope for climate-related opportunities		

DC Section

DC Section

Describe the climate-related risks and opportunities the Trustee has identified over the short, medium and long term

The Trustee has identified risks associated with the transition to a low-carbon economy (transition risk) over the medium-term and increases in global temperatures impacting physical assets and causing disruption (physical risk) over the longer term. This is likely to lead to winners and losers, creating both opportunities and risks.

Short/Medium Term

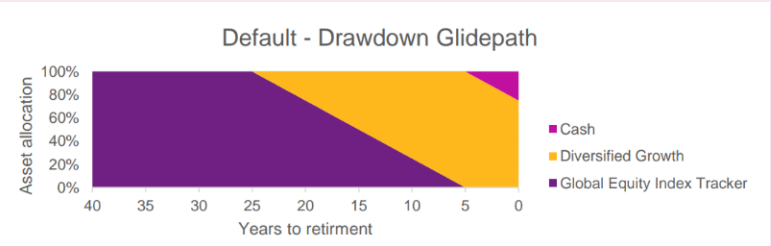
Transition risks are expected to impact the Scheme first, for example: Introduction and/or fluctuations in carbon prices; Policy/regulatory changes; and Changes in consumer behaviour.

Long Term

This time horizon is consistent with the 2050 timescale referenced in the Paris Agreement. The Trustee expects physical risks to become an increasingly large part of climate risk over the longer term. For example the following could impact the funds: Extreme weather events; Sea level rises; Food price inflation; and Population migration.

Investment strategy

The Trustee conducted a review of the investment strategy for the Drawdown Glidepath (“the default lifestyle”) and assessed the resilience of the Section’s investment strategy to various climate change outcomes. Given its size (>10% total asset value), the Trustee also assessed the resilience of the Overseas Equity (ex-UK) fund.



Transition risk

Opportunities arise from efforts made to transition towards a net-zero economy (both domestically and globally) in order to limit climate change. These include early investment in assets which are likely to benefit from climate change adaptations, such as green energy providers. The Trustee is actively looking to mitigate the risks and take advantage of the opportunities which occur in order to improve the likelihood of meeting the Trustee’s short- and medium-term investment goals. A summary of activity is noted below.

Global Equity

Equities make up a significant amount of the investments of members with longer investment horizons (generally younger members) and they’re likely to be at greater risk from a climate perspective. The Trustee believes incorporating environmental, social and governance (ESG) factors into portfolio construction and reducing exposure to fossil fuels companies can reduce risk while increasing exposure to companies that can potentially benefit from the transition.

The Trustee has reviewed the Global Equity Index Tracker fund and introduced screens and tilts into the portfolio construction to favour companies with lower carbon emissions and decarbonisation plans. This change is expected to half the carbon footprint of the fund.

Diversified Growth

The Section’s Diversified Growth fund already incorporates ESG factor tilts for the majority of its equity exposure. The manager is targeting a 50% reduction in the fund’s carbon footprint by 2030, which it expects to achieve through tilts to the equity funds; changes to the investment grade bond and infrastructure exposures, and an effective stewardship program.

Wider DC strategy

The Trustee also uses exclusions to reduce climate-related risks within the Scheme’s developed regional equity fund, including the UK and Overseas Equity (ex-UK) funds.

DC Section

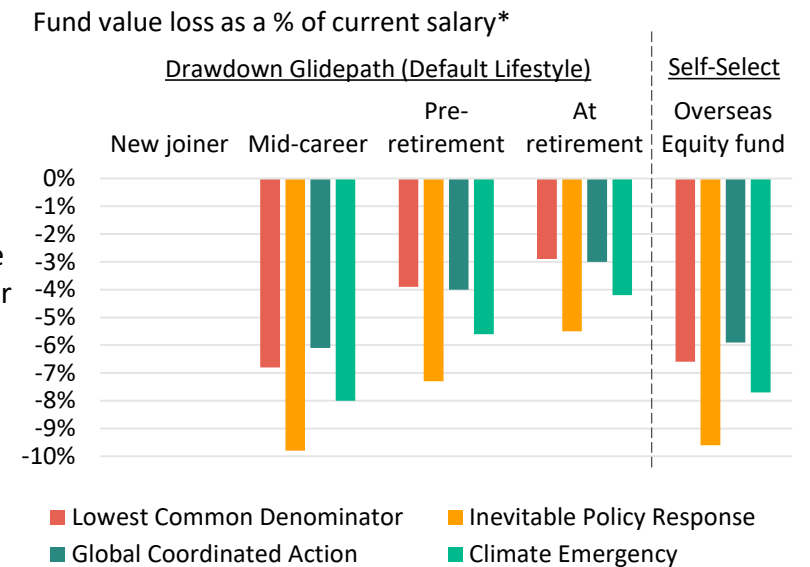
Describe the resilience of the Scheme's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

Climate scenario analysis: short-term shock analysis

Scenario analysis in this section was conducted in 2023 and is due to be updated as part of the triennial review in 2026. Our analysis over the short term assumes that the impact on the investments occurs as an instantaneous shock. Whilst this analysis was completed in the previous reporting year, the Trustee has reviewed it and deemed it appropriate for the current strategies.

In practice, it is rare for investors to price in the right long-term expectation immediately. Typically, markets overreact as sentiment becomes bearish and/or investors want to receive a risk premium until expectations are more certain. As such, we allow for an overreaction in our calculation of the one-off shocks from each scenario. The size of the impact is influenced by the size of the member's investment and how they are invested under the different scenarios. The Trustee has assessed all of the "popular" DC arrangements, this includes the Drawdown Glidepath ("the Default Lifestyle") and the Overseas Equity (ex-UK) self-select fund.

- "New joiner" has no money invested at the start of the year so the impact of a shock is negligible.
- "Mid-career" is assumed to be invested predominantly in the JMEPS Global Equity Index Tracker fund at the start of the year, which has a relatively high climate risk. The analysis highlights that the Inevitable Policy Response ("IPR") scenario poses the greatest risk to outcomes for mid-career members, followed by the Climate Emergency scenario. All scenarios pose a material risk of loss.
- "Pre-retirement" is assumed to be invested purely in the JMEPS Diversified Growth fund at the start of the year, with the same fund value and salary as "Mid-career". The climate risk is reduced across all scenarios but remains significant under the IPR scenario.
- "At retirement" is invested in a mixture of the JMEPS Diversified Growth fund and the Cash fund. This shows that the strategy helps to reduce climate risk for members in the years immediately prior to retirement.
- The impact for all members (excluding new joiners) is the same for the Overseas Equity (ex-UK) fund, which has a relatively high climate risk, as a result of asset allocation remaining static and the same fund value and salary assumptions for these members. Similar to the default strategy, the analysis highlights that the IPR scenario poses the greatest risk to outcomes, irrespective of the member's age.



Notes: Additional details on the scenario analysis can be found in the appendix. *Data in the chart shows the results of a 1-in-20 shock to fund values (i.e. VaR) as a percentage of current salary.

DC Section

Describe the resilience of the Scheme's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

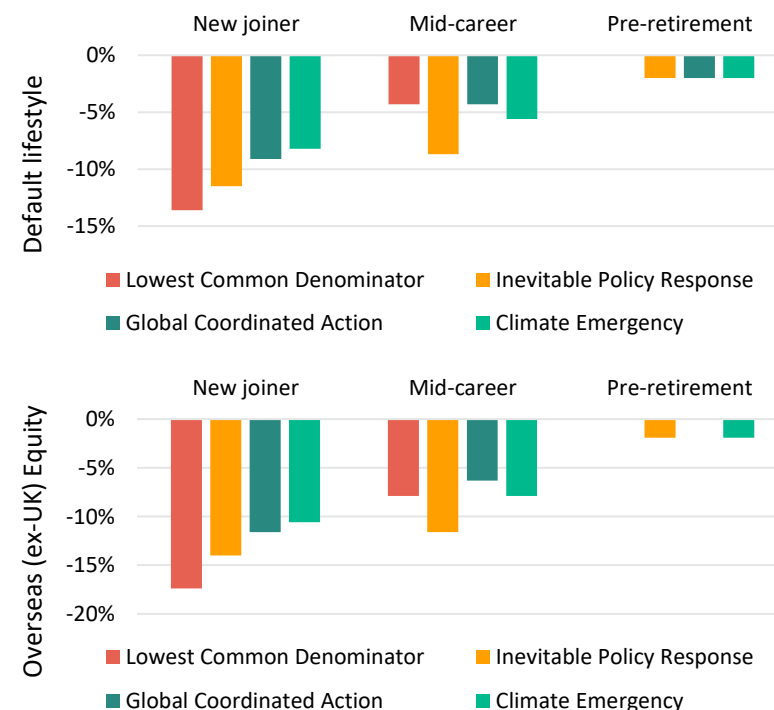
Climate scenario analysis: Impact on fund value at retirement

In order to consider the impact over the medium to long term we have assumed that the impact of climate change is time dependent. The impact of physical and transition risk on cashflows will vary over time with the transition risk being front-end loaded and the physical risk being back-end loaded. We arbitrarily assume that the transition risk impact in each scenario bites over the first 10 years and the physical risk over the remainder of the period.

The charts to the right show the potential impact on the member's projected fund value at retirement based on the default lifestyle and the "popular" self-select fund (overseas equity) for the three groups of members across the four climate scenarios, relative to a "base case". The Trustee conducted this analysis in the year to 31 March 2023. It is comfortable that this analysis remains appropriate and it is within regulatory requirement.




- Under the default lifestyle and in the "popular" self-select fund, younger members are impacted to a greater extent than older members and are impacted differently under the different scenarios. Younger members are most exposed to the Least Common Denominator ("LCD") scenario or 'business as usual' followed by the Inevitable Policy Response ("IPR"), where there are delays in taking policy action and a disorderly transition. These members are impacted materially under all climate scenarios.
- Members in their mid-career are most exposed to the IPR. These members are also expected to be negatively impacted under all other scenarios considered.
- Older members are least exposed to the LCD scenario, with moderate impact under the other scenarios considered. The short-term impacts for members in the Overseas Equity fund are modest, as shown by the Pre-retirement member, with the IPR and Climate Emergency scenarios having the greatest impact.

Impact on expected fund size (vs base case)



Notes: Additional details on the scenario analysis can be found in the appendix.

DC Strategy













Low 
Average 
High 













Describe the resilience of the Scheme's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

Materiality of climate-related risks and opportunities

The Trustee, in conjunction with its Investment Consultant, has used a Red, Amber, Green rating scale to illustrate the likely magnitude of the potential impacts of climate-related risks and opportunities across the different time horizons agreed. Whilst we have not undertaken updated climate scenario analysis this year as we are comfortable that it remains appropriate, we consider climate-related risks and opportunities as part of our discussions with our Investment Consultant.

Assets – The Section's assets are diversified, will be de-risked as the member approaches retirement, and are expected to react differently to various climate scenarios.

	Timeframe (years)	Default Lifestyle	Overseas Equity (ex-UK) fund
Lowest Common Denominator	Short term (1-5) <i>Pre-Retirement member</i>		
	Medium term (20) <i>Mid-career member</i>		
	Long term (40) <i>New joiner member</i>		
Inevitable Policy Response	Short term (1-5) <i>Pre-Retirement member</i>		
	Medium term (20) <i>Mid-career member</i>		
	Long term (40) <i>New joiner member</i>		

	Timeframe (years)	Default Lifestyle	Overseas Equity (ex-UK) fund
Global Co-ordinated Action	Short term (1-5) <i>Pre-Retirement member</i>		
	Medium term (20) <i>Mid-career member</i>		
	Long term (40) <i>New joiner member</i>		
Climate Emergency	Short term (1-5) <i>Pre-Retirement member</i>		
	Medium term (20) <i>Mid-career member</i>		
	Long term (40) <i>New joiner member</i>		

TCFD Recommendations – Risk Management

Risk Management

Describe the Trustee’s processes for identifying, assessing and managing climate-related risks

Climate-related risk management process

We depict below the Trustee’s climate-related risk management process. This is designed to allow identification of the most material risks for the Scheme and the development of controls and processes to manage these. Risks are prioritised according to both the likelihood of their occurrence and the severity of the potential impact.



Risk Management

Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the Trustee's overall risk management

Risk register

In 2022, the Trustee's Investment Consultant proposed the following additions to the risk register to ensure climate considerations are embedded into the Scheme's ongoing governance and risk management processes. These are currently being reviewed as part of the Scheme's wider risk register review.

	Potential risk:	Potential control measures:
Sponsor Company covenant	<ul style="list-style-type: none"> – Worsening Covenant position associated with the impacts of climate change (transitional and physical) – Damage to reputation and/or legal challenge due to poor or inconsistent climate practices 	<ul style="list-style-type: none"> – Covenant formally considered by external professional covenant consultant ongoing – Regular review with Sponsor Company
Investment strategy	<ul style="list-style-type: none"> – Asset mispricing due to the impacts of climate change and the transition to low carbon economy and/or physical impacts of climate change, e.g. lower real returns and/or market shocks due to pricing-in climate change 	<ul style="list-style-type: none"> – Professional advice from investment consultant – Continued monitoring of investments in the Career Average and Elements Sections against the Trustee's ESG policy and climate target(s), and regular (at least triennial) climate scenario modelling – Ongoing Trustee training
Asset and investment manager allocations	<ul style="list-style-type: none"> – Investment managers do not adequately integrate financially material ESG factors in their risk management framework – Investment managers do not adopt effective stewardship or collaborate to encourage best practice in addressing systemic climate risks – Investment managers do not consider potential investment opportunities, which may be expected to benefit from climate change and provide upside opportunity for the portfolio, or individual asset classes 	<ul style="list-style-type: none"> – Investment consultant monitors managers and reports to the Trustee; this may include but is not limited to, monitoring managers and asset classes on the risks and opportunities that arise from climate change and how these are managed on an ongoing basis
Funding level	<ul style="list-style-type: none"> – Funding target is increased at future actuarial valuations due to higher expected costs / greater uncertainty / weaker Sponsor Company due to climate-related reasons – Cost of longevity insurance increases due to climate change 	<ul style="list-style-type: none"> – Actuary, Sponsor Company, investment consultant and covenant consultant all involved in ongoing funding level assessment and IRM – Training and advice on potential funding impact using climate scenario analysis

Risk Management

Describe the Trustee’s processes for identifying, assessing and managing climate-related risks

Investment Managers

Whilst the Trustee retains overall responsibility, the Trustee delegates day-to-day management of the investments to investment managers, and the Trustee expects the managers to be identifying, assessing and managing climate-related risks on an ongoing basis on the Trustee’s behalf. The Trustee meets with the Scheme’s investment managers annually, where necessary, to provide an update on the market and the Scheme’s mandates. The Investment Consultants also review the investment managers for material developments on a quarterly basis.

The Trustee receives an annual assessment report from its DB Investment Consultant that assesses each of the underlying managers with regard to the level of ESG integration for each mandate. The Sustainability Integration Assessment (SIA) is an evaluation tool used by the Investment Consultant, which includes a specific climate score for each of the underlying managers. Example criteria for this assessment are shown on the right.

Each mandate is assessed across five key areas, detailed on the right. At a high level, the majority of the Scheme’s DB managers received at least satisfactory ratings. The main areas of improvement were in relation to the mandate’s better-integrated ESG and climate considerations in their investment approaches.

The Trustee uses this assessment to identify areas of improvement and targets engagement efforts towards these areas. The Trustee expects to see progress in the investment managers’ capabilities and the Investment Consultant’s considerations each year.

Assessment category	Example evaluation criteria
Investment approach	Are the fund's climate objectives quantifiable with interim targets set?
Risk management	Does the manager have a dedicated individual within the ESG team with responsibility for oversight of the climate change policy?
Stewardship	Can the manager provide a case study example demonstrating effective engagement on climate-related issues?
Reporting	Does the manager undertake forward-looking climate scenario modelling and is this published in quarterly reports?
Collaboration	Is the manager a member of the UN Net Zero Asset Owner Alliance? If not, is there a valid reason why?

Risk Management

Key:



Strength



Acceptable



Weakness

p Positive change

q Negative change

Describe the Trustee’s processes for identifying, assessing and managing climate-related risks

Investment Managers (continued)

For the DC Section, a Sustainable Investment review is carried out regularly, with the last one taking place in December 2022.

This review covered a number of the Scheme’s DC managers and included:

- A summary and assessment of how the Scheme’s managers incorporate sustainable investing into their approach, together with their most significant votes and engagements over the past year.
- A separate assessment of the Scheme’s Diversified Growth fund.

Our review found the majority of the Scheme’s managers were demonstrating good practice overall.

- Given the boutique nature of some of the Scheme’s active managers we were comfortable that their sustainable investment practices remained appropriate, taking into consideration their investment processes and size.
- Our view on the ESG integration process of Manager 4 slightly decreased due to the instability of their Stewardship team.
- While Manager 2 has increased the size of the stewardship team, we questioned their willingness to influence change through corporate engagement.

Each asset manager’s strategy was assessed against the following three key areas:

- Integration of ESG risks and opportunities within investment research and decision-making, including resources available
- Proxy vote decision-making and execution process (where applicable), including disclosure of voting policy and results
- Process for proactive corporate engagement (where applicable), including disclosure of engagement activity

Manager	Product	ESG integration	Voting/ Stewardship	Engagement
Manager 1	Long Term Global Growth			
Manager 2	Equity Indexation			
Manager 3	Ecology Fund			
Manager 4	Equity Indexation	q		
Manager 5	Global Alpha			

The next Sustainable Investment review for the DC Section is being carried out in the Summer of 2024.

Risk Management

Describe the Trustee’s processes for identifying, assessing and managing climate-related risks

Stewardship

The Trustee recognises the importance of stewardship in driving change and aiding the transition to a lower carbon economy. The Trustee delegates stewardship responsibilities to its investment managers, and the managers should engage and vote on all issues, including climate, in the best interests of the Scheme’s members.

In March 2024, the Trustee conducted a deep dive into the stewardship activities conducted by the Scheme’s investment managers (in the DB Section) to assess alignment with its priority areas:

Climate change	Biodiversity
Gender diversity and equality	Labour rights, incl. modern slavery

Stewardship is a key risk management tool that can uncover potential problems in investee companies and enable managers to take preventative measures to minimise financial loss and support decision-making. The aim of the review was to challenge the managers’ stewardship activity and to encourage risk management improvement going forwards. This review goes above and beyond regulatory guidance for the monitoring of investment managers’ stewardship capabilities.

To assess managers’ alignment with the Trustee’s priority areas, the Investment Consultant identified sub-industries that are potentially material negative contributors to each of the Trustee’s priority areas. Following this, the Trustee could analyse what proportion of the high risk holding companies were engaged with on the relevant stewardship priority, based on data provided by the managers.

The key takeaway was the potential misalignment of manager policies and stewardship activity in practice (as illustrated in the table on the right). For example, a firm invested in by Manager 1 was identified as potentially high risk from a biodiversity perspective, but the manager had not engaged with them in this area. The review identified a greater focus on environmental issues relative to social issues and that there were challenges for some managers in providing relevant data.

The Trustee is engaging with its investment managers to encourage improvements in data reporting capabilities and the alignment with the Trustee’s stewardship priorities.

Stewardship alignment views

	1	2	3	4
	Climate change	Biodiversity	Gender diversity & inequality	Labour rights incl. modern slavery
Manager 1	Partially aligned	Partially aligned	Not aligned	Partially aligned
Manager 2	Not aligned	Not aligned	Not aligned	Not aligned
Manager 3	Partially aligned	Partially aligned	Not aligned	Partially aligned
Manager 4	No data			
Manager 5	No data			

Aligned Partially aligned Not aligned

Metrics and Targets

Disclose the metrics used by the Trustee to assess climate-related risks and opportunities in line with its strategy and risk management process

Climate metrics selection

Greenhouse gas (“GHG”) emissions are a key driver of climate change. These result from a number of economic activities, primarily as a result of burning fossil fuels. The gases contribute to the increased retention of the sun’s energy, resulting in a “greenhouse effect” where the Earth is warmed. Slowing and reducing the release of GHGs into the atmosphere is therefore important. During the year, the Trustee monitored the same four climate metrics as the previous year, for the whole Scheme (both DB Sections and the DC Section):

1. **Absolute emissions metric:** Total greenhouse gas emissions (scope 1, & 2 and scope 3)
2. **Emissions intensity-based metric:** Carbon footprint (scope 1, & 2 and scope 3)
3. **Portfolio alignment metric:** Implied temperature rise (“ITR”)
4. **Additional climate change metric:** Data quality

The process of selecting these metrics for monitoring focussed on two key aspects 1) level of impact and 2) availability of data.

Level of impact

The metrics above were chosen based on their potential to add value to the Trustee’s decision making. Last year, the Trustee focussed on scope 1 and 2 emissions only i.e. direct emissions from company-owned or -controlled sources and indirect emissions from purchased energy. The Trustee now also reports on scope 3 emissions (indirect emissions in the value chain), where available.

Whilst it’s important to consider emissions to date, it’s also important to assess how these could evolve into the future. We have chosen ITR, expressed in degrees Celsius (°C), in order to estimate the global implied temperature rise if the whole economy was invested according to our strategy. This ensures we have a longer term focus for our climate-related decision making.

Availability of data

The Investment Consultants gathered this data from the Investment Managers on behalf of the Trustee. The quality of this information is important to allow robust decision-making and target-setting. We have chosen to monitor data quality as our fourth metric given this.

The Investment Consultants, on behalf of the Trustee, engage with the Investment Managers to seek improvements in data quality.

Monitoring

The Trustee will assess these metrics, at least annually, to monitor climate-related risks and as a tool to engage with the Investment Managers.

More detail on how the metrics are defined can be found in the appendix.

Metrics and Targets

Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks

Metrics review

The Trustee gathered climate metrics for the Scheme as at 30 September 2023 (or the data at the best-available proximate date) and the results are set out below. This helps to set a baseline against which future action can be measured, so that trends over time and problem areas within the portfolio can be understood.

The Trustee has monitored the same metrics over both Sections to allow consistency and comparison across the Scheme's holdings. This year, the Trustee has also reported on Scope 3 emissions, although as this is the first year of scope 3 reporting and data was available for only a small proportion of the holdings, scope 3 data remains limited. Details of the DB Section's metrics at the mandate level and notes to the data can be found in the appendices. For the DC Section we have provided metrics for in scope assets, being the Default Lifestyle and one Self-Select fund. (which represent 86% of DC assets as at 30 September 2023).

Mandates		Total GHG emissions (scope 1 & 2)		Carbon footprint (scope 1 & 2)		Data quality % of scope 1 & 2 emissions intensity that are:				Total GHG emissions (scope 3)		Carbon footprint (scope 3)		Implied Temperature Rise	
		Metric, tCO ₂ e	Coverage	Metric, tCO ₂ e/ \$1m of EVIC	Coverage	Verified	Reported	Estimated	Unavailable	Metric tCO ₂ e	Coverage	Metric, tCO ₂ e/ \$1m of EVIC	Coverage	Metric	Coverage
DB Section															
CARE		94,388	71%	56	71%	0%	32%	39%	29%	190,756	31%	475	27%	2.2°C	53%
Elements		8,137	85%	33	86%	0%	56%	29%	14%	24,565	58%	199	58%	2.4°C	80%
DC Section															
Default Lifestyle	Global Equity portfolio	3,936	99%	33	99%	0%	93%	6%	1%	-	-	-	-	-	-
	Diversified Growth portfolio	8,157	82%	93	82%	0%	68%	14%	18%	33,928	-	499	-	2.8	77%
	Cash fund	5	90%	1	90%	0%	81%	9%	10%	-	-	-	-	-	-
S-S	Overseas Equity (ex-UK) fund	1,146	99%	37	99%	0%	80%	19%	1%	-	-	-	-	-	-

Sources: Investment managers, Investment Consultants' calculations. Metrics data is sourced from the respective investment managers and aggregated by Isio. Isio makes reasonable efforts to check specific data provided by investment managers, however data provided by managers has not been independently verified by Isio. Notes: tCO₂e: Tonnes of carbon dioxide equivalent, where CO₂e expresses the impact of each different greenhouse gas in terms of the amount of CO₂ that would create the same amount of warming. EVIC: Enterprise value including cash. Coverage: Denotes the % of each fund where data is available. Figures rounded to nearest whole number or percentage. Current asset allocation as at 30 September 2023. *Investment manager for the Elements Section cannot split out the data coverage quality currently so we have assumed the total GHG emissions coverage is all estimated. Please see appendix for further caveats.

Metrics and Targets

Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks

Metrics review – key takeaways

DB Section	Total absolute emissions increased across the CARE and Elements Sections as a result of improved data coverage, with data coverage increasing from 40% to 71% for CARE and from 67% to 85% for Elements.
	Reporting capabilities for the Liability Driven Investment (LDI) portfolios, in both the CARE and Elements DB Sections, have improved. The investment manager is now able to report on total GHG emissions for LDI and can also provide figures including derivatives (leveraged) for Scope 1 & 2 emissions.
	The carbon footprint for CARE has risen from 49 to 56. This is driven by the addition of the Absolute Return Bond mandate as well as improved data coverage across such allocations as the Infrastructure Equity mandates. In contrast, the carbon footprint for Elements has fallen from 40 to 33. This is significantly lower than other DB schemes due to the high (over 50%) allocation to climate aware B&M bonds and equities. This metric will continue to fluctuate as the impact of the new climate-focused Private Market mandate, which was implemented during the year, is captured in the 2024 metrics review report.
DC Section	Scope 3 emissions are reported on for the first time this year and we expect them to be volatile over the coming years as data coverage increases.
	Total absolute emissions increased for the DC Section largely due to improved coverage within the Diversified Growth portfolio (for which data was previously unavailable).
	The Scope 1 & 2 carbon footprint of the overall portfolio is currently on track to reduce its carbon footprint by 50% by 2030. As of 30 September 2023, this figure was 53 tonnes of CO2 per million \$ invested versus a baseline of 72 as at 30 September 2021, a reduction of 26%.
	The carbon footprints of both the Global Equity and Diversified Growth portfolios have reduced significantly over the year to 30 September 2023, from 55 to 33 and 108 to 93 respectively.
	The carbon footprints of both the Cash fund and Overseas Equity fund have remained broadly in line with the previous year.
	Scope 3 emissions data is provided where available but is not currently published by the manager responsible for most of the DC Section funds. Coverage is expected to increase across all funds for inclusion in next year’s report.

Metrics and Targets

Describe the targets used by the Trustee to manage climate-related risks and opportunities and performance against targets

Target-setting: DB Section

The Trustee has set a decarbonisation target for the DB Section: to reduce carbon footprint of both DB Sections (excl. LDI assets) by 42% by 30 September 2030 (from a 30 September 2023 baseline).

The DB Section previously set an interim target to increase data quality (Scope 1&2 emissions verified, reported or estimated) to 50%. This was achieved during the year with the CARE and Elements Section's data quality improving, from 40% to 71% and 67% to 85% respectively. As a result, the Trustee has set a new long-term decarbonisation target, to reduce the carbon footprint of both sections' assets, excluding LDI assets, by 42% by 2030. The figure of 42% was determined with reference to the requirements set out in the Science Based Target initiative's ("SBTi") 1.5°C Scenario. This new target will be monitored annually via annual calculation of changes to the Sections' carbon footprints as part of the Scheme's Metrics and Target Review report.

As the Scheme's illiquid assets run-off and their overall allocation reduces, the Scheme's overall carbon footprint metric is expected to reduce, as these are typically more carbon-intensive assets. Strong climate ambitions within the investment guidelines of the B&M Credit mandates intend to support the reduction of overall carbon footprint as the Scheme de-risks in future, with the potential to increase its allocation to B&M Credit.

The Trustee recently implemented a climate-focused private markets mandate in the Elements Section. While this investment may push the overall carbon footprint up in the short term, it should help reduce it in the longer term given its focus on climate impact opportunities.

The Trustee also acknowledges that the DB Section's Scope 3 carbon footprint coverage is low, especially for the CARE Section (27%). The Trustee has a desire to improve Scope 3 data quality over time.

Target-setting: DC Section

The Trustee has set a decarbonisation target for the DC Section: to reduce carbon footprint by 50% by 30 September 2030 (from a 30 September 2021 baseline).

Due to the already good data quality coverage for the DC Section, the Trustee set a decarbonisation target for these assets in 2021.

The Trustee aims to achieve this target through a combination of the impacts of government net zero ambitions on the wider economy; effective stewardship by its investment managers, and changes to portfolio exposures – either as a result of investment managers evolving existing funds or through switching into alternative pooled funds with a different mandate.




The Trustee has already implemented changes to the Global Equity Index Tracker fund which has significantly reduced the carbon footprint of this fund. In addition, the Section's Diversified Growth investment manager has a target to reduce the fund's carbon footprint by 50% by 2030 which it expects to achieve through a combination of changes to the equity, investment grade bond and infrastructure exposures in combination with effective stewardship of the assets.

The Section is currently on track to reduce its carbon footprint by 50% by 2030. As of 30 September 2023, it has a carbon footprint of 53, a reduction of 26%.

The Trustee will review this target on an annual basis to ensure it remains appropriate and achievable.

Appendix

DB Strategy - Elements

Low 
Average 
High 

Describe the impact of climate-related risks and opportunities on the Scheme's assets, liabilities, and Sponsor













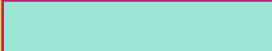












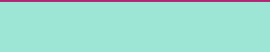
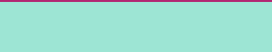
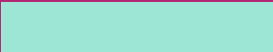
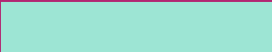
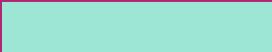

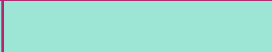
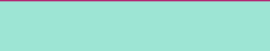

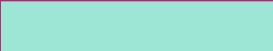





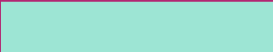









Materiality of climate-related risks and opportunities

The Trustee, in conjunction with its Investment Consultant, has used a Red, Amber, Green rating scale to illustrate the likely magnitude of the potential impacts of climate-related risks and opportunities across the different time horizons agreed. This analysis was conducted in the year to 31 March 2023 but remains appropriate as there is no material change in the strategy.

Assets – The Elements Section's assets are well diversified and are expected to react differently to various climate scenarios. The Section's investment strategy is expected to mature and de-risk over a long time period and the impact of climate-related risks is expected to change with the strategy.

Liabilities – The liabilities are well hedged and protected from movements in yields and inflation. Potential changes in longevity assumptions are a material risk.

Covenant – Due to the nature of the Sponsor's business area, it is expected to be highly exposed to climate risks and opportunities over the longer term.

	Timeframe (years)	Government Bonds	Absolute Return Bonds	B&M Credit	Private Markets	Equities	Liabilities	Sponsor
Transitional (orderly scenario*)	Short term (3)							
	Medium term (7)							
	Long term (17)							
	V. Long term (27)							
Physical (hot house scenario)	Short term (3)							
	Medium term (7)							
	Long term (17)							
	V. Long term (27)							
Opportunities		Mandate permits the use of green gilts	Opportunity to be replaced with a sustainable liquid credit mandate	Investment guidelines include climate and UN SGD alignment objectives	Opportunity to consider sub-asset classes beyond the current mandate	Current mandate is a Paris-aligned ESG equity fund		

* The directional impacts under a Disorderly Transition scenario are likely to be similar to an Orderly scenario, albeit the magnitude and timing is expected to be delayed and uncertain.

Scenario analysis appendix – DB Section

Modelling principles

Modelling was undertaken by the Scheme's Investment Consultant as at 30 September 2022 using a stochastic model that simulates a large number of possible future economic outcomes, in which financial conditions develop in a number of different ways, defined by assumptions for average outcomes, range of variability, and inter-dependency between different markets. The results shown in this report are based on the median results.

The high-level market scenarios are generated by a third-party Economic Scenario Generator ("ESG") provided by Moody's Analytics. The ESG is an industry-standard tool that is widely used by financial institutions (e.g. insurers, asset managers, and investment banks). Both the climate scenarios and the underlying economic impacts are provided by Moody's Analytics.

Based on the scenarios generated by the ESG, the model simulates asset class returns calibrated to the asset class assumptions.

The model takes the initial starting position of the assets, and projects these values forward under the simulated scenarios, taking into account any relevant inflows and outflows.

Different investment strategies are modelled in order to illustrate the effects of different allocations. In each case, the model assumes that the strategy remains constant over the full projection period, and assets are annually rebalanced back to the original allocations. We can model alternative future strategic asset allocations being explored.

Modelling limitations

The models are based on assumptions and simplifications across both the climate-related impacts and the investment implications, they are not intended to be a perfect prediction of the future but rather provide the Trustee with hypothetical constructs.

No guarantee can be offered that actual outcomes will fall within the range of simulated results.

The only risk factors considered in the modelling are those that affect the values of pension schemes' assets. The modelling results should be viewed alongside other qualitative considerations including portfolio complexity, governance burden, and liquidity risk.

The model's projections are sensitive to the starting position and the econometric assumptions. Changes to the assumptions can have a material impact upon the output. There can be no guarantee that any particular asset class or investment manager will behave in accordance with the assumptions. Newer asset classes can be harder to calibrate due to the lack of a long-term history.

Strategy

Scenario analysis appendix – DB Section

Climate scenario analysis – as at 30 September 2022

The Scheme's Investment Consultant partnered with Moody's to deliver a climate change model. Please see below an overview:

1. Selection of **climate scenarios** from the Network for Greening the Financial System. The interpretation and implementation of these scenarios are detailed below, across these building blocks.
2. Inclusion of climate scenarios within Moody's **climate model**, composed of two building blocks: a socioeconomic REMIND-MAGPIE general equilibrium model, modelling macroeconomic growth and energy systems. This assumes that markets are efficient and sets out traditional economic assumptions around the evolution of economic markets. This is combined with the MAGICC 6 climate model, modelling climate and weather. The model runs 600 climate scenario projections and takes the median outcome for each climate scenario: baseline, orderly, disorderly and hot house. There is interplay between these models.
3. The investment model determines how different asset classes will react under the different climate change scenarios analysed, and across time. It is also composed of two building blocks: Moody's Economic Scenario Generator, modelling economic pathways. This is combined with a proprietary investment model, which models the impact on investments.
4. The output is an understanding of the potential impacts on **investment strategy and asset class outcomes**, as well as the **funding position**. In particular, the impacts of rising transitional and physical costs associated with climate change are assessed.

Strategy

Scenario analysis appendix – DC Section

Climate scenario analysis methodology – as at 30 September 2022

To help build a picture how the impact is felt across the membership we have considered four strawman members and both short-term and longer-term impacts.

	Current age	Retirement age	Current Salary	Current Fund value	Contribution rate as a %age of salary	Assumed future salary increases
New joiner	25	65	£25,000	£0	9%	CPI + 0.5% for 15 years then CPI
Mid-career	45	65	£40,000	£25,000	9%	CPI
Pre-retirement	60	65	£40,000	£25,000	9%	CPI
At retirement	65	65	£40,000	£25,000	9%	CPI

- Short-term: We have undertaken a shock analysis, assuming the entire cost of climate change is capitalised over 1 year. The results show the Value at Risk expressed as a percentage of salary.
- Longer-term: This shows the impact on projected value of DC pension pot at retirement and assumes a return drag under each scenario.

Metrics – DB Section

Climate metrics for the DB Section’s investment strategies as at 30 September 2023 (or the data at the best-available proximate date) are set out below. Gaps in the data table denote where investment managers were not able to provide the data requested by the Trustee.

Mandates	Total GHG emissions (scope 1 & 2)		Carbon footprint (scope 1 & 2)		Implied Temperature Rise		Data quality % of scope 1 & 2 emissions intensity that are:			
	Metric, tCO ₂ e	Coverage	Metric, tCO ₂ e/ \$1m of EVIC	Coverage	Metric	Coverage	Verified	Reported	Estimated	Unavailable
Government Bonds	55,677	100%	58	100%	1.9°C	100%	0%	0%	100%	0%
Absolute Return Credit	11,004	68%	71	68%	2.5°C	57%	0%	67%	2%	32%
Buy & Maintain Credit	4,991	63%	24	67%	2.1°C	63%	0%	67%	1%	33%
Multi-Asset Credit – Mandate 1	6,753	66%	112	66%	3.2°C	59%	0%	48%	19%	34%
Multi-Asset Credit – Mandate 2	10,308	70%	114	70%	2.3°C	27%	0%	29%	41%	30%
Private Markets	947	12%	39	12%	-	0%	0%	12%	0%	88%
Exchange Traded Fund	2,359	94%	39	94%	-	0%	0%	72%	22%	6%
Balanced Property	388	69%	5	69%	-	0%	0%	69%	0%	31%
Infrastructure Equity – Mandate 1	1,419	45%	83	45%	-	0%	0%	45%	0%	55%
Infrastructure Equity – Mandate 2	541	35%	37	35%	-	0%	0%	35%	0%	65%
Diversified Growth Fund	-	0%	-	0%	-	0%	0%	0%	0%	100%
Total CARE Portfolio	94,388	71%	56	71%	2.2°C	53%	0%	32%	39%	29%
Government Bonds	5,184	100%	58	100%	1.9°C	100%	0%	0%	100%	0%
Absolute Return Credit	1,309	68%	71	68%	2.5°C	57%	0%	67%	2%	32%
Buy & Maintain Credit	909	67%	21	72%	2.3°C	68%	0%	71%	1%	28%
Equity	730	99%	14	99%	2.7°C	98%	0%	97%	2%	1%
Cash	5	47%	0	47%	2.6°C	12%	0%	47%	0%	53%
Total Elements Portfolio	8,137	85%	33	86%	2.4°C	80%	0%	56%	29%	14%

Source: Investment managers, DB Investment Consultant calculations.

Notes: tCO₂e: Tonnes of carbon dioxide equivalent, where CO₂e expresses the impact of each different greenhouse gas in terms of the amount of CO₂ that would create the same amount of warming. EVIC: Enterprise value including cash. Coverage: Denotes the % of each fund where data is available. Figures rounded to nearest whole number or percentage. Current asset allocation as at 30 September 2023.

Metrics – DB Section

Climate metrics for the DB Section’s investment strategies as at 30 September 2023 (or the data at the best-available proximate date) are set out below. Gaps in the data table denote where investment managers were not able to provide the data requested by the Trustee.

Mandates	Total GHG emissions (scope 3)		Carbon footprint (scope 3)	
	Metric, tCO ₂ e	Coverage	Metric, tCO ₂ e/ \$1m of EVIC	Coverage
Government Bonds	3,272	4%	138	4%
Absolute Return Credit	47,439	61%	448	61%
Buy & Maintain Credit	44,935	63%	215	63%
Multi-Asset Credit – Mandate 1	37,192	60%	616	60%
Multi-Asset Credit – Mandate 2	11,713	68%	134	68%
Private Markets	29,318	8%	1,890	8%
Exchange Traded Fund	16,703	58%	-	0%
Balanced Property	-	0%	-	0%
Infrastructure Equity – Mandate 1	-	0%	-	0%
Infrastructure Equity – Mandate 2	185	10%	28	10%
Diversified Growth Fund	-	0%	-	0%
Total CARE Portfolio	190,756	31%	475	27%
Government Bonds	424	5%	138	5%
Absolute Return Credit	5,641	61%	448	61%
Buy & Maintain Credit	8,624	68%	196	68%
Equity	8,719	99%	195	99%
Cash	1,157	51%	113	51%
Total Elements Portfolio	24,565	58%	199	58%

Source: Investment managers, DB Investment Consultant calculations.

Notes: tCO₂e: Tonnes of carbon dioxide equivalent, where CO₂e expresses the impact of each different greenhouse gas in terms of the amount of CO₂ that would create the same amount of warming. EVIC: Enterprise value including cash.

Coverage: Denotes the % of each fund where data is available. Figures rounded to nearest whole number or percentage. Current asset allocation as at 30 September 2023. Please see next page for caveats.

Metrics – DB Section

Further metrics caveats are set out below covering the Funds in both the CARE and Elements Sections. Where data is not available, the manager has been unable to provide this. The Trustee notes that where data is ‘estimated,’ as opposed to being ‘reported’ or ‘verified,’ there is greater uncertainty about the reliability of the metric, however the exact method of estimation and assumptions used will differ by each manager.

Mandate	Caveats
Government Bonds	<ul style="list-style-type: none"> Data as at 30 September 2023. Absolute emissions have been scaled to show 100% coverage. Government bond data uses 2019 emissions. Government bond carbon footprint for 2022 is unlevered given levered data was not available, the figure is broadly comparable with the 2023 levered carbon footprint for Scope 1 and 2 emissions. Scope 3 emissions data is unlevered. For all other funds, coverage is assumed to include reported and estimated data. Carbon footprint reported in tonnes of CO₂e per \$1m invested. ‘Unavailable’ data for the pooled funds includes data that is non-eligible or not available.
Absolute Return Credit	
B&M Credit	
ESG Paris Aligned Equity	
Cash	
Multi-Asset Credit Mandate 1	<ul style="list-style-type: none"> Data as at 30 September 2023. Emissions coverage is based on the % of carbon eligible securities, this may be lower than total market value. Carbon footprint reported in tonnes of CO₂e per \$1m invested. Implied Temperature Rise coverage has been assumed whilst the manager confirms the correct figure.
Multi-Asset Credit Mandate 2	<ul style="list-style-type: none"> Data as at 30 September 2023. Carbon footprint reported in tonnes of CO₂e per \$1m invested.
Private Markets	<ul style="list-style-type: none"> Data as at 30 June 2023. Carbon footprint reported in tonnes of CO₂e per \$1m invested. Last year it was reported in tonnes of CO₂e per £1m invested
Exchange Traded Fund	<ul style="list-style-type: none"> Data as at 30 September 2023. Carbon footprint reported in tonnes of CO₂e per \$1m invested. Scope 3 emissions are estimated whilst the manager is validating it for standard use.
Property	<ul style="list-style-type: none"> Data as at 31 December 2022. Carbon footprint reported in tonnes of CO₂e per \$1m invested. Last year it was reported in tonnes of CO₂e per £1m invested
Infrastructure Equity – Mandate 1 & 2	<ul style="list-style-type: none"> Data as at 31 December 2022. Carbon footprint reported in tonnes of CO₂e per \$1m invested.
Diversified Growth Fund	<ul style="list-style-type: none"> No data currently available.

Metrics – DC Section

Further metrics caveats are set out below covering the underlying investment managers for the Scheme’s DC Section. The Trustee notes that where data is ‘estimated,’ as opposed to being ‘reported’ or ‘verified,’ there is greater uncertainty about the reliability of the metric, however the exact method of estimation and assumptions used will differ by each manager.

Mandate	Caveats
Manager 1 – Global Equity portfolio (50%), Cash fund and Overseas Equity (ex-UK) fund	<ul style="list-style-type: none">• Data as at 30 September 2023.• Sourced from MSCI.• Carbon footprint reported in tonnes of CO₂e per \$1m enterprise value including cash.• Unable to currently provide Scope 3 emissions.
Manager 2 – Global Equity portfolio (50%), Diversified Growth portfolio	<ul style="list-style-type: none">• Data as at 30 September 2023.• Carbon footprint reported in tonnes of CO₂e per \$1m total capital stock.

Glossary

Metric	Description	
Absolute Emissions Metric: Total GHG emissions (scope 1 & 2) Total GHG emissions (scope 3)	Total amount of greenhouse gas emissions (as mandated by the Kyoto Protocol) emitted by the underlying portfolio companies, attributed to the investor based on the total investment in each company	$\sum_n^i \left(\frac{\text{Current value of investment}_i}{\text{Investee company enterprise value}_i} \right) \times \text{investee company's scope 1 and 2 emissions}_i$ $\sum_n^i \left(\frac{\text{Current value of investment}_i}{\text{Investee company enterprise value}_i} \right) \times \text{investee company's scope 3 emissions}_i$
Emissions Intensity Metric: Carbon footprint (scope 1 & 2) Carbon footprint (scope 3)	An intensity measure of emissions that assesses the level of greenhouse gas emissions (as mandated by the Kyoto Protocol) arising from £1 million investment (based on Enterprise Value Including Cash) in a company	$\frac{\sum_n^i \left(\frac{\text{Current value of investment}_i}{\text{Investee company enterprise value}_i} \times \text{investee company's scope 1 and 2 emissions}_i \right)}{\text{Current value of all investments (£ millions)}}$ $\frac{\sum_n^i \left(\frac{\text{Current value of investment}_i}{\text{Investee company enterprise value}_i} \times \text{investee company's scope 3 emissions}_i \right)}{\text{Current value of all investments (£ millions)}}$
Implied temperature Rise	A forward-looking view of carbon exposure that can be translated into a projected increase in global average temperature (°C) above pre-industrial levels that would occur if all companies had the same carbon intensity. For example, a company that is Paris-aligned would have an Implied Temperature Rise of 'well below 2°C', which means that if the whole world economy only consisted of this one company then the rise in global temperatures will be kept below 2°C. Weighted averages are used for the total mandate or portfolio. The DWP recommend a focus on a 1.5°C scenario. We acknowledge that there some concerns around complexity/opaqueness of calculations across managers.	
Data quality	Verified	% of the emissions data that is verified (audited or independently verified)
	Reported	% of the emissions data that is sourced from actual company reported data
	Estimated	% of the emissions data that is estimated, either by the manager or a third party data provider

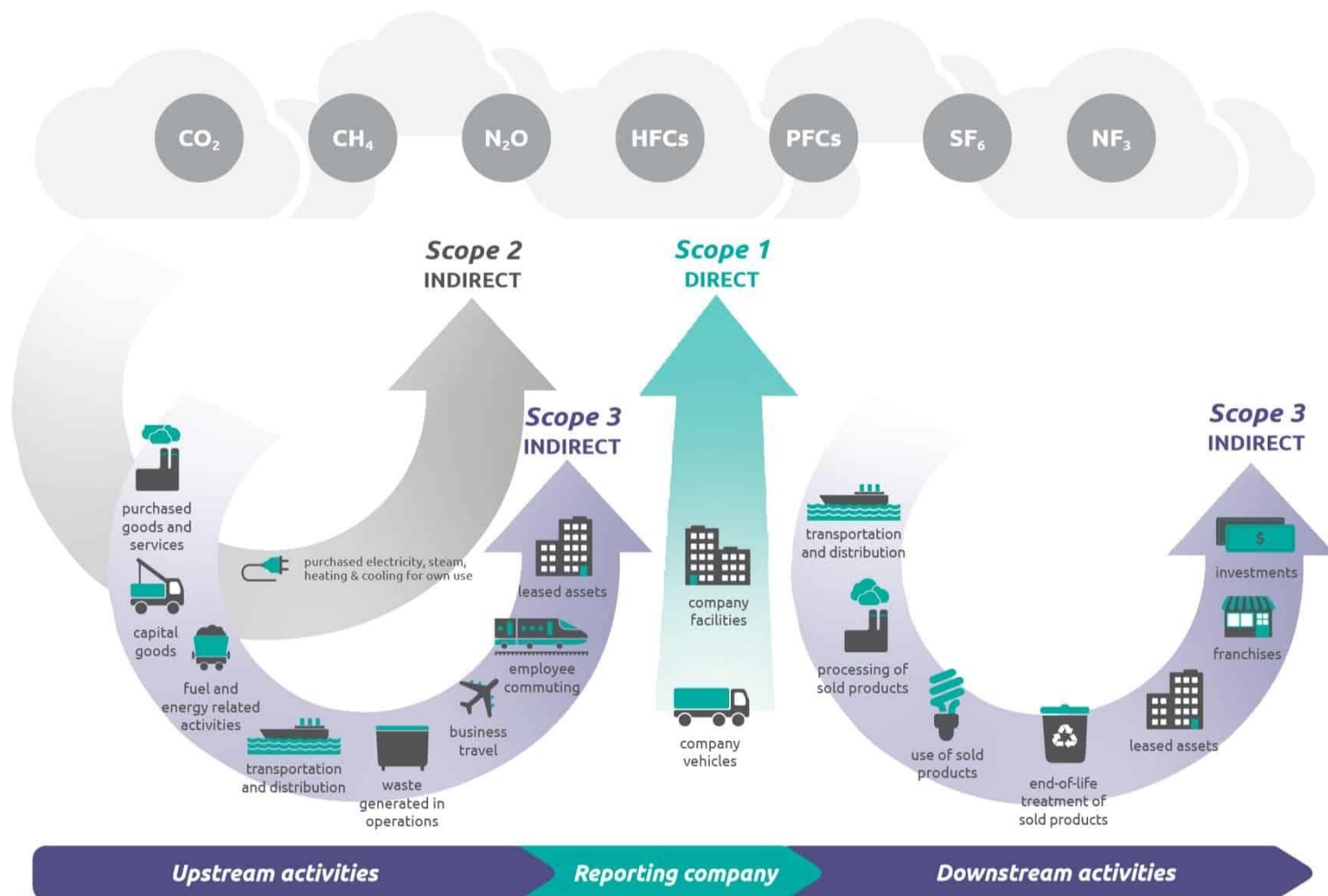
All metrics were provided by the Investment Managers, who are closest to the underlying assets, and consolidated by the Scheme's Investment Consultant.

Source: DWP - Governance and reporting of climate change risk: guidance for trustees of occupational schemes

Glossary

GHG emissions from a particular company can be split across three levels, as shown in the diagram.

- Scope 1 are direct emissions from company owned or controlled sources – this includes heating/cooling of offices/factories and fleet vehicles.
- Scope 2 are indirect emissions from purchased energy – emissions are created during the production of the energy which is eventually used by the company.
- Scope 3 are all indirect emissions that occur in the value chain – this includes emissions from the production of purchased goods and services and the use of sold products. There are currently industry-wide issues with reporting scope 3 emissions.



Source: GHG Protocol

Thank you