# Taskforce on Climate-related Financial Disclosures Report

## ZF UK Pension Plan ("the Plan")

Year ending 31 March 2025

# 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 Beliefs Policy** – The Trustee maintains an ESG Policy which sets out Trustee ESG beliefs & implementation framework. This was reviewed and updated in 2024.
- **Meetings** – The Trustee and the Investment Committee ("IC") meet quarterly and receive adviser support.
- **Training** – The Trustee has previously received training on relevant climate risks and opportunities from its investment adviser .

## Strategy

*Actual and potential impacts of climate risks and opportunities*

- **Time horizons** – The Trustee has defined key time horizons for the Plan and considered how the Plan may develop over these periods.
- **Risks & opportunities** – The Trustee has identified relevant climate-related risks over the selected time horizons, with opportunities evolving over time.
- **Scenario analysis** – Given the new strategy implemented in the previous year, the Trustee has completed climate scenario analysis on the portfolio to stress the Plan's funding level under various climate scenarios.

## Risk Management

*Identification, assessment and management of climate-related risks*

- **Risk register** – The Trustee reviewed and maintained the Plan's risk register which include climate-related risks.
- **Manager assessments** – The Plan's investment adviser completed its annual review of the Plan's investment managers in Q1 2025 to identify areas of strength and areas for improvement.
- **Stewardship priorities** – The Trustee continues to monitor the Plan's managers in line with their Stewardship Priority which is Climate Change.

## Metrics & Targets

*Disclosure of key metrics and targets*

- **Metrics** – The Trustee has engaged with managers to target higher data quality over the next year (and beyond).
- **Consistent metrics** – after a minor change last year, the Trustee has continued to monitor the same key metrics as last year. The change in these metrics over the year has been discussed by the Trustee.
- **Targets** – The Trustee set a revised target which aims for 85% data quality within 3 years, following early achievement of the previous 65% goal.

# Trustee statement on climate risks and opportunities

## Chair statement on behalf of the Trustee

### An important issue

The Trustee recognises that climate change represents a long-term financial risk to the Plan but can also be a dynamic source of opportunities. Climate change is expected to affect our members, financial markets and society at unprecedented levels. We recognise that managing the associated risks and opportunities forms part of our fiduciary duty to members.

### Actions we have taken

This report sets out our response to the Task Force on Climate-related Financial Disclosures ("TCFD") regulation, intended to manage climate change risks in the Plan. The key actions we have taken over the Plan year ending 31 March 2025 include:

- Engaging with managers to target higher data quality over the next year (and beyond).
- Targeting a data quality threshold of at least 85% of data being estimated, reported or verified in the next 3 years. This new target was introduced after the earlier-than-expected achievement of the previous data quality target of over 65%.
- Monitoring a series of key metrics (including "Implied Temperature Rise" as the "Portfolio Alignment" metric since 2023).
- Continuing to monitor the Plan's managers in line with the Trustee's Stewardship Priority - Climate Change.
- Having assessed how each of the Plan's investment managers have integrated ESG into their investment process; since the year-end we have communicated to a selection of the Plan's managers potential improvement points to improve the integration of ESG considerations in the Plan's investments going forward.
- Completing a climate scenario analysis on the portfolio to stress the Plan's funding level under various climate scenarios.

### In summary

The Trustee is committed to ensuring the best outcomes for the Plan's members by addressing the risks and opportunities of climate change. In the context of our wider responsibilities to the Plan's members, we will continue to take further steps to build the Plan's strategy for climate resilience.

**Mike Smaje, Chair of the Trustee of the ZF UK Pension Plan**

# Overview

# TCFD Overview

## Governance

*Governance around climate-related risks and opportunities (no material changes since 2024 report)*

### Internal

**Trustee** – We, the Trustee, hold ultimate responsibility for managing the Plan, to ensure Plan-level climate-related risks and opportunities are well governed.

The Trustee, working with the Plan's advisers, provides oversight and manages Environmental, Social and Governance ("ESG")-related risks as they pertain to the Plan's assets. In addition, the Trustee has set climate change as a stewardship priority, with the aim of engaging with managers to encourage positive changes, to help to manage financial risks and opportunities, while also ultimately benefitting members and wider society.

**Investment Committee ("IC")** - The Trustee has established an IC to both ensure that investment matters receive a sufficient degree of attention and to improve decision making. The implementation and monitoring of the investment strategy has been delegated to the IC.

**Plan Principal Employer** - The Plan's principal employer and parent company have their own sustainability strategy including regular reporting. The Trustee ensures those issues relevant to the Plan are considered where appropriate and ensures synergy (again where appropriate) between the Plan and principal employer's approach to climate related issues.

### External

**Investment adviser** - The Plan's investment adviser provides climate-related advice to the Trustee throughout the year, covering the inclusion of climate considerations in governance arrangements, climate risks and opportunities, TCFD reporting, the effectiveness of managers' climate risk management, the analysis of climate metrics, and providing training on the ever-evolving climate science as well as regulatory updates.

**Actuary** – The Plan's actuary assesses climate-related risks and opportunities in relation to the Plan's liabilities and the implications for the Plan's funding and long-term objective.

**Other advisers** - The Plan's covenant adviser provides advice to the Trustee in relation to climate risks and the principal employer. The Trustee's legal adviser provides advice to the Trustee on climate-related regulation.

**Investment Managers** - The Trustee has delegated responsibility to the Plan's investment managers for managing the Plan's assets in line with the agreed mandates. This includes identifying, assessing and managing climate-related risks and opportunities in relation to the Plan's investments, as well as engaging with portfolio companies in the best interests of the Plan's members and providing the agreed climate-related metrics. These engagements are in line with the Trustee's stewardship priority and policies.

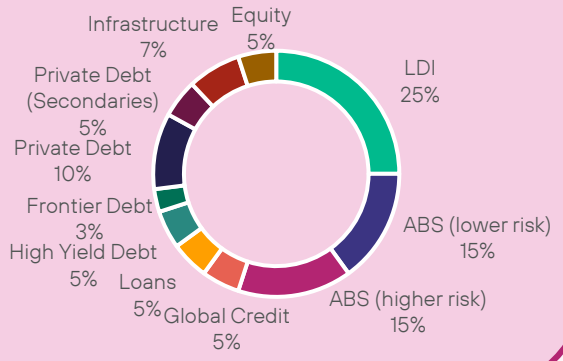
# TCFD Overview

## Strategy

*Key developments over the year*

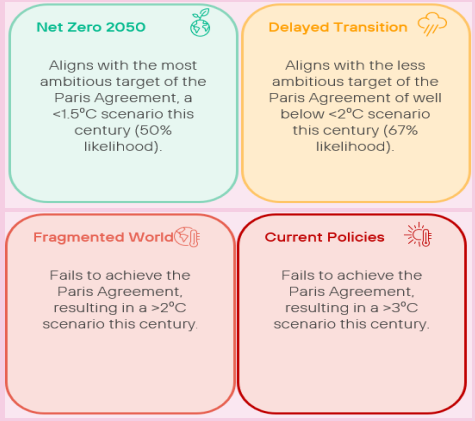
### Updated Investment Strategy

The Trustee implemented changes to move closer to the target strategy (agreed via the investment strategy process completed in the previous year). These changes included investing into new private debt secondary, infrastructure equity, equity and bank loan funds. When appointing each manager, the Trustee considered how they integrate ESG into their investment approaches.




### Updated Scenario Analysis

The Trustee completed updated climate scenario analysis using the NGFS 2023 framework, incorporating a fourth climate scenario, 'Fragmented World" and more severe physical risk data. This has helped the Trustee to evaluate portfolio, covenant and liability resilience under an increased range of plausible climate pathways.




### Exploring Climate Metrics in Asset-Backed Securities ("ABS")

The Trustee has identified ABS as an asset class that lags other public assets in terms of ESG (e.g. data availability).

The Trustee has actively engaged with its ABS manager and investment adviser on climate-related metrics available given the inherent difficulties of integrating ESG into this asset class.

This engagement was completed as part of the Trustee's annual engagement with the Plan's managers. The Trustee will continue to monitor progress made by the ABS manager (and the wider market) in future annual reviews.

Note: Chart reflective of the Plan's target strategy.

# 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 Plan level and ensuring the Plan's investment managers are considering ESG risks and opportunities in line with the Trustee's expectations.

### Plan level

The Trustee periodically reviews the risk register and has received advice on ESG risks regarding the:

- Investment strategy
- Asset and investment manager allocations
- Funding

The Trustee also received advice on the Plan's sponsor's covenant in the previous Plan year. This advice will be refreshed in the next Plan year.

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

### Underlying investment mandates

The Trustee regularly reviews the Plan's investment managers' ESG capabilities.

On an annual basis, the Plan's investment adviser provides an ESG assessment for the Plan's mandates. The assessment has a focus on climate-related risks, highlighting areas the mandates perform well, and areas for improvement/engagement.

The Trustee uses the results of these assessments to engage with the Plan's investment managers on areas to improve. This year, the IC identified three investment managers to engage with where it believed that progress was most realistic and impactful.

The Trustee also uses the climate metrics it has collected to engage further with the Plan's investment managers.

### Engagement example – High Yield Bonds

In this year's assessment, it was noted that the Plan's high yield bond manager has an experienced and well-resourced self standing ESG team. The manager also uses a proprietary ESG scorecard to manage ESG risks in the fund and assess each individual issuer. An ESG scorecard is used to screen out those issuers with negative ESG credentials.

The Trustee identified two engagement points for the manager including asking them to consider adding ESG metrics to their regular reporting and the appropriateness of a minimum allocation to green assets.

# TCFD Overview

## Metrics & Targets

*Disclosure of key metrics and targets*

The Trustee has selected, gathered and assessed the four climate metrics outlined in the table below. The Trustee has previously set an interim target of 65% data coverage—estimated, reported, or verified—over the next three years from December 2023. However, given the early achievement of the previous 65% data quality target, the Trustee has now set a new goal of at least 85% by 2027.

| Fund split | Scopes | Total GHG emissions | | Carbon footprint | |
|---|---|---|---|---|---|
| | | Metric $tCO_2e$ | Coverage | Metric $tCO_2e$/$m | Coverage |
| Growth Funds | Scope 1 & 2 | 48,617 | 77% | 82 | 77% |
| | Scope 3 | 109,837 | 31% | 376 | 31% |
| LDI Funds | Scope 1 & 2 | 85,897 | 100% | 252 | 100% |
| | Scope 3 | 56,581 | 100% | Unavailable | Unavailable |

| Fund split | | Implied temperature rise | | Data quality, % of scope 1 &2 emissions that are: | | | |
|---|---|---|---|---|---|---|---|
| | | Metric °C | Coverage | Verified | Reported | Estimated | Unavailable |
| Growth Funds | Scope 1 & 2 | 3.3 | 13% | 4% | 17% | 56% | 23% |
| LDI Funds | Scope 1 & 2 | - | - | - | - | 100% | - |

| Data quality target | 31 December 2024 | 2027 target |
|---|---|---|
| Plan's short – medium term target | 77% estimated, reported or verified (83% incl. LDI) | 85%+ estimated, reported or verified |

The Plan achieved its data quality target of 65%+ earlier than expected. As such, the Trustee has set a new target to achieve a minimum threshold of at least 85% of data being estimated, reported or verified by December 2027.

**Growth Mandates (c.75% of Plan assets). LDI Mandate (c.25% of Plan assets).*
**The total coverage numbers on this page are calculated relative to the Plan's total asset value.*
** The data quality targets have been set for the total portfolio but excluding LDI assets.*
*Please see appendix for details and caveats*

# 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. These remain unchanged from last year. Whilst these focus on general ESG principles, they do have an emphasis on climate change given the Trustee's belief that climate change is a financially material risk to the Plan. The Trustee's ESG beliefs are set out below.

The overall responsibility for implementing these beliefs and other ESG-considerations (including climate-related) lies with the Trustee, however, it receives support from its scheme actuary, investment adviser, legal adviser and covenant adviser.

The Trustee delegates the day-to-day decision making of the Plan's investments to the investment managers. Therefore, the Trustee considers the managers' expertise, track record, and stated policies and frameworks on ESG related issues when carrying out their initial and ongoing due diligence of the Plan's investment managers. On an annual basis, the Trustee assesses how the managers' ESG policies align with the Trustee's ESG beliefs.

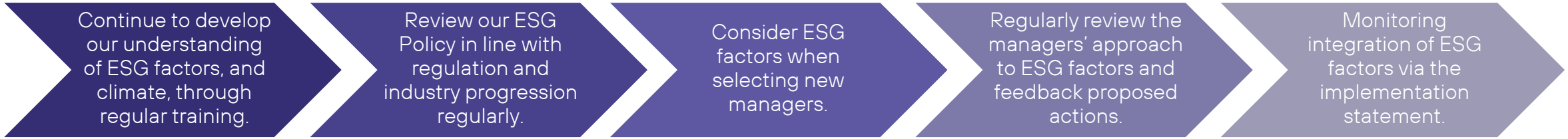
1. Climate change and the expected transition to a low carbon economy is a financial risk to the Plan. The Trustee should consider climate risk factors in its investment decisions along with other risks.
2. The Trustee should set the policies for responsible investment and climate risks, and delegate management to investment managers who will act in line with the Plan's policies where practical. It is necessary to know investment managers' policies and performance to do this properly.
3. The Trustee believes that engaging with managers is more effective to initiate change than disinvesting and so will seek to communicate key ESG actions to the managers in the first instance. The Trustee prefers engagement to achieve this but would consider disinvestment, whilst also considering a range of other factors, if this is not effective.
4. ESG factors can be financially material, and it is important to consider them for risk management. Managing these risks forms part of the fiduciary duty of the Trustee and can lead to better risk adjusted outcomes.
5. The Trustee will seek to monitor key ESG metrics within the Plan's investment portfolio to understand the impact of its investments. The Trustee will consider its own and the Sponsor's ESG priority areas when setting targets for the managers.

Adopting these beliefs, with a particular focus on climate change, ensures that managing climate related risks is at the heart of investment-related decision making. When considering geopolitical risks and debating new 'best ideas' for the portfolio, the Trustee also considered ESG as part of these discussions.

# Governance

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

**Framework for implementing the ESG policy**




This framework emphasises that the Trustee will engage with managers to improve how they manage ESG factors (including climate-related risks). The Trustee believes this is the most appropriate action to take to reduce the impact of ESG risks on the Plan.

The Trustee meets at least quarterly and receives updates and support from advisers on ESG and climate change topics. The IC typically meets with managers on an annual basis, and part of the discussions involve an update on how the managers have considered climate change and ESG risks in their investment processes. For example, at the December 2024 IC meeting one of the Plan's managers discussed that climate change is integrated into the investment process via a three-stage process which included analysis of internal and external data and performance indices. The Trustee was also particularly interested to understand how its LDI manager engaged with the UK Government. The LDI manager was able to provide multiple examples of work with government bodies on a range of topics, including climate change. The Trustee dedicates time and resources to ESG and climate change topics to ensure effective governance of climate-related risks and opportunities. This focus reflects the Trustee's view that robust oversight in these areas supports the Plan's long-term financial sustainability and resilience. Activities include annual reviews of TCFD metrics to assess progress against climate objectives, and evaluation of the investment manager's ESG processes and alignment with the Plan's risk management framework.

**Stewardship priority**

The Trustee maintains climate change as its stewardship priority and has communicated this to the Plan's investment managers. This remains unchanged from last year. The Trustee's aim is to encourage the Plan's managers to support underlying companies and investee positions in taking steps to help mitigate climate change. It is believed that this will help to lower climate-related risks to the Plan. The Trustee recognises that achieving material change may take time but believes that consistent effort is essential for driving meaningful change.

**Climate-related training**

The Plan's investment adviser provides ESG training to the Trustee, either recapping previous topics or introducing new topics as the industry evolves. In September 2024, the Trustee received training on climate scenario analysis and how certain climate scenarios could affect the Plan's assets and funding position.

Where training needs arise, these are discussed with the relevant adviser and tabled for discussion at the next Trustee or IC meeting.

# Governance

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

The Trustee has appointed advisers and other parties to help support it in the management of climate-related risks and opportunities. The key stakeholders in managing climate-related risks are outlined in the table below:

| | |
|---|---|
| Trustee/IC | – The Trustee is responsible for incorporating responsible investment ESG considerations, such as climate change, into the Plan's overall management and executing the Plan's ESG Policy. This includes meeting all regulatory obligations and ensuring effective governance processes for managing ESG-related risks.<br>– The Trustee is tasked to include ESG factors in managing the Plan's assets, identifying and managing ESG related risks and opportunities in all areas including asset allocation decisions, manager appointments and monitoring the Plan's current investment managers. |
| Scheme actuary | – The Plan's actuarial advisers are responsible for identifying any ESG considerations which should be incorporated into the Plan's funding strategy (both short and long term) and in the Plan's integrated risk management plan.<br>– This will include the setting of individual financial and demographic assumptions and also the Trustee's assessment of the covenant of the Principal Employer. |
| Principal employer | – The principal employer is responsible for managing the climate-related risks to its business.<br>– The Trustee recognises that engaging with the principal employer on climate-related risks is important given the potential indirect impacts on the Plan. |
| Investment adviser | – The investment adviser assists with ongoing monitoring of the investment managers, including their stance on climate related issues. It also supports with facilitating feedback to the investment managers to help improve their ESG processes over time.<br>– The investment adviser supports with integrating climate related risks and opportunities into the Plan's investment decisions.<br>– They provide advice and training to the Trustee regarding regulatory requirements.<br>– They also provide support to the Trustee with the collection of climate-related metrics. |
| Investment managers | – The Plan's investment managers are expected to integrate ESG considerations into their management of each of the Plan's mandates.<br>– On the appointment of any new manager, the Trustee considers each manager's ESG capabilities, with assistance from their investment adviser, to determine if that manager's approach is aligned with the Trustee's policies and beliefs.<br>– Once appointed, the Trustee monitors all the managers' ESG policies regularly, The Trustee also liaises with the investment managers in relation to ESG matters, as required. |

# TCFD Recommendations – Strategy

# Strategy

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

When considering the impact on the Plan, climate risk can be defined as the potential impact on future financial returns that may arise from climate change. Climate risk is typically split into two parts – transition risk and physical risk. These risks may vary in likelihood and intensity over different time horizons and are dependent on how quickly and well the world transitions to a low-carbon economy. This is laid out in the diagram below:


**Transition to a low carbon economy – transition risks dominate.**

- Policy changes, e.g. carbon pricing, seek to create the changes needed in society.
- Technology development, e.g. renewable energy, and adoption enable the changes to be adopted.

**Fail to transition - Physical risks and impacts dominate.**

- Chronic changes, e.g. sea level rise, agricultural systems impact economic and social systems.
- Acute changes, e.g. storms, wildfires create damage and give rise to costs of adaptation and reconstruction.

**The Trustee acknowledges that opportunities will arise to support sustainable growth, development and investment across industries as part of a move towards net zero economies. The Trustee will consider these opportunities if they align with the Plan's wider strategy.**

The Plan is a long-term investor. Given the nature of climate change and the time-horizons over which impacts of climate change may be felt, it can be expected that climate risk will impact the Plan in various ways. In the context of the Plan, we consider short, medium and long-term horizons. We have defined what these time-horizons mean in more detail below.

| Timeframe | Investment Horizon | Impact of Risks | Climate Horizon |
|---|---|---|---|
| Short-term *1 year* | This reflects the period from the actuarial valuation as at 31 March 2024 to 31 March 2025. | • Transition risks are expected to feature more prominently over the shorter-time periods, due to likely escalation in climate change regulation.<br>• Physical risks are expected to feature increasingly over the longer-term.<br>• Both transition and physical risks will impact the Plan during its lifetime. | • Improvement in data quality<br>• Target setting and measurement |
| Medium-term *6 years* | Half-way to the long-term target | | • Interim 2030 targets<br>• Measure outcome against UN SDGs and carbon targets |
| Long-term *15 years* | Aligns to the likely time horizon over which the Plan is expected to reach 'significant maturity' under The Pensions Regulatory' new DB funding code. | | • Measure against 2050 net zero target |

# Strategy

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

Risks relating to climate change are identified through the various processes involved in managing the Plan, as described in the Risk Management section of this report.

Climate risks may be identified, assessed and monitored in a number of different ways. The Trustee consider climate risks at both an overall strategy level as well as with respect to each fund in which the Plan is invested. The Trustee engages with individual managers on these assets and improvements that can be made.

The Trustee assesses climate related risks and opportunities when setting investment and funding strategy, taking into account covenant, to ensure a holistic and consistent approach. The tables below and overleaf set out the key ESG risks the Trustee has identified and still believe to be most significant to the Plan. The Trustee acknowledges that these risks are material and will carefully consider the steps that need to be taken to mitigate them, thinking about the short-, medium- and long-term. Further detail on the risk management processes in place for the Plan are set out in the table below.

| Risk | Description | Examples | Possible controls/management techniques |
|---|---|---|---|
| 1. Transition – Assets - policy and legal | Risks (short- to medium-term) that may impact company earnings in the shorter term, e.g. policy risks arising from carbon pricing or taxes. | Increased pricing of GHG emissions; Enhanced emissions-reporting obligations; Mandates on and regulation of existing products and services; exposure to litigation. | Underlying investee companies should provide an indication of the potential climate-related impact on their assets and liabilities, particularly long-lived assets.<br><br>Using a wide range of metrics and techniques to assess the risks posed by climate change to their portfolio.<br><br>Undertake scenario analysis and asset/liability stressing to assess the risk posed by climate change across the Plan.<br><br>As an example, as part of the new investment strategy, the Trustee implemented an equity manager, with the asset class likely to be more sensitive to the risks outlined than other asset classes the Plan holds. The Trustee has sought to mitigate these risks by ensuring diversification at geographic and sector level, noting that the equity allocation only makes up c.5% of total Plan assets. |
| 2. Transition - Assets - Technology | Risks and opportunities (medium- to long-term) as companies develop, or don't adopt, superior technology to build industry-based solutions. | Substitution of existing products and services with lower emissions options; Unsuccessful investment in new technologies; Costs to transition to lower emissions technology. Continuation of business-as-usual and wasted investment; delay in change. | |
| 3. Transition – Assets - Market | Risks (short- to medium-term) of shifts in supply and demand for certain commodities, products, and services as climate-related risks and opportunities are increasingly taken into account, resulting in poor asset performance. | Changing customer behaviour – uncertainty in market signals – increased cost of raw materials, changes in consumer behaviour and therefore purchasing decisions. | |

# Strategy

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

| Risk | Description | Examples | Possible controls/management techniques |
|---|---|---|---|
| 4. Transition – Reputation | Reputational risk (short- to medium-term) tied to changing perceptions of an organisation's contribution to or detraction from the transition to a lower-carbon economy. | Shifts in consumer preferences; Stigmatisation of sector; Increased stakeholder concern or negative stakeholder feedback. | Require asset managers to provide carbon foot printing and scenario analysis of transition risks, consider exposure to physical risks and engage with issuers, where relevant/possible.<br><br>Consider pathway alignment and how the Plan could align with certain pathways.<br><br>Require fund managers to understand and integrate material climate-related risks into their analysis and investment process.<br><br>Regularly monitor and review manager activities (including voting & engagement with issues and reporting) regarding climate issues. |
| 5. Transition - Liabilities | Risk (long-term) that the transition to a low carbon economy and supporting technology resulting in longer life-spans and increasing the liabilities. | Legal action from stakeholder on breaches of fiduciary duty by directors. | Bake risk into funding assumptions/technical provisions as additional prudence. |
| 6. Transition – social | Risk (short-, medium- and long-term) that the transition to a low carbon economy is achieved in a way that negatively impacts social elements of society. | Inability to recruit, collective action, protest, reputational damage, impact of job losses in declining sectors. | Regularly monitor and review manager activities (including voting & engagement with issues and reporting) regarding climate/social-related issues and in particular issues that link to the just transition. |

# Strategy

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

| Risk | Description | Examples | Possible controls/management techniques |
|---|---|---|---|
| 7. Physical risks (acute) | Risks (medium- to long-term) of physical damages to real assets and resource availability due to acute physical impacts of climate change. | Short term risks from more frequent and extreme weather events and associated insurance losses. Disruption to BAU economic activity as a consequent of extreme weather event, e.g. agricultural supply chain. Increase prevalence of diseases from destruction of biodiversity and risk of zoonotic diseases. | See above (risks 1 – 4) |
| 8. Physical risks (chronic) | Risks (medium- to long-term) of physical damages to real assets and resource availability due to chronic physical impacts of climate change. | Rising mean temperatures. Rising sea levels. Changes in precipitation patterns and extreme variability in weather patterns leading to impact on agricultural, economic and social impacts. | See above (risks 1 – 4) |
| 9. (Missed) Opportunity risk | Risk (short-, medium- and long-term) that the Plan does not capitalise on opportunities within some asset classes, resulting in not keeping pace with the market. | Opportunities such as sustainable forestry assets that offer a viable nature-based solution to climate change mitigation. | See above (risks 1 – 4) - works for both risks and opportunities |

# Strategy

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

| Risk | Description | Examples | Possible controls/management techniques |
|---|---|---|---|
| 10. Transition | Risk (medium- to long-term) of deterioration of sponsor covenant strength due to not keeping up with the market transition. This could be short term, e.g. car companies could fail if they don't embrace new technology such as electric vehicles. | Similar to the asset risks but focused on sponsor performance.<br><br>Transition risk may also present themselves through changes in legislation or shifts in consumer markets that effect sponsor revenues. | If the Plan is well funded – i.e. reducing remaining dependency on sponsor covenant;<br><br>Bake sponsor risk into funding assumptions/technical provisions as additional prudence<br><br>Covenant monitoring and scenario modelling of sponsor covenant. |
| 11. Physical | Risk (medium- to long-term) of deterioration of sponsor covenant due to the physical risks of climate change directly impacting the sponsor's business. | Physical risks may have financial implications for the sponsor, such as direct damage to assets and indirect impacts from supply chain disruption. | |
| 12. Governance/ Compliance | Risk (short- to medium-term) that the Plan does not keep pace with the inevitable policy response leading to a breach of requirements. | Fail to put in place necessary governance requirements/publish a mandatory TCFD report. | Ensure climate risk is embedded within Plan governance, include important deadlines within business plans, ensure kept up to date by advisers, have climate risk (and related actions) regularly feature on the agenda. |

Please see appendix for further details and caveats.

# Strategy

## Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning

**Risks and opportunities summary**

The systemic nature of climate change risk has the potential to reduce returns across all asset classes and will have a macro-economic impact that could affect the entire Plan. Equally, however, the need to transition to a low carbon economy and the innovation which that will require presents several potential investment opportunities.

Over recent years the Trustee has dedicated considerable time and resource to ensuring that climate risk and opportunities are appropriately embedded within our investment processes. This has largely been in the form of engaging with the Plan's investment managers and when setting the investment strategy, considering the resilience of the strategy to climate change risks.

**Actions to manage and mitigate climate and ESG risks:**

- Enhance the management of ESG issues and climate change, including new potential investment products;
- Continue to engage with investment managers regarding their processes for taking account of climate risk and steps being taken to improve availability of climate data;
- Comply with the processes and policies set out in the Trustee's ESG Beliefs policy;
- Monitor the Government's approach to directing investment strategies via statutory guidance and legislation;
- Enhance the transparency of the Plan's approach to managing climate change risk.

**Actions to manage and mitigate climate and ESG risks:**

- The Trustee meets with each of the Plan's investment managers on a cycle, to understand how that manager integrates climate change and other ESG risks and opportunities into their investment process;
- When assessing strategy changes for the Plan, the Trustee considers the climate risks and ESG characteristics of each mandate when selecting the types of investment to increase/reduce exposure to;
    - For example, when implementing the new investment strategy, the Trustee communicated its stewardship priority and its expectations for ESG with the new managers;
- Established a set of ESG beliefs.

# Strategy

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

### Climate Scenarios

Updated scenario analysis has been carried out for this report by the investment adviser, scheme actuary, and covenant adviser. The purpose of scenario analysis is to better understand the risks and opportunities posed by climate change to the Plan, and to inform the Trustee's funding and investment strategy accordingly. Scenarios are not forecasts but rather intended to highlight central elements of possible futures and to draw attention to the key factors that will drive developments.

Primary differences: The main differences in the updated scenario analysis are an increased severity on physical risks, driven by widespread recognition that traditional models have historically underestimated these components, and the introduction of a fourth climate scenario —"Fragmented World"— which provides an intermediate pathway between current policies and net zero, offering valuable insights into outcomes across the middle of the spectrum. Further detail can be found in the Appendix.

**Net Zero 2050**

Aligns with the most ambitious target of the Paris Agreement, a <1.5°C scenario this century (50% likelihood). An optimistic scenario, where climate policy is implemented immediately, Achieves net zero carbon emissions by 2050. Some regions, e.g. EU and US, achieve net zero across all GHGs by that date. Physical risks are minimised, however, transition risks are extremely high.

**Delayed Transition**

Aligns with the less ambitious target of the Paris Agreement of well below <2°C scenario this century (67% likelihood). Emissions do not peak until 2030, with strong climate policies then needed to align with the Paris Agreement outcome. There is regional variation in climate ambition. Physical risks remain low whilst transition risks expected to incur later than in Net Zero 2050.

**Fragmented World**

Fails to achieve the Paris Agreement, resulting in a >2°C scenario this century. There is delayed and divergent climate policy ambition globally. Net zero targets are partially achieved, with those falling short continuing along a business-as-usual pathway. Transition risk is high in some countries (i.e. those achieving net zero targets), whilst physical risks increase in general.

**Current Policies**

Fails to achieve the Paris Agreement, resulting in a >3°C scenario this century. The scenario assumes currently implemented policies remain in place, with no further climate ambition. There is low regional variation in climate ambition globally. Very high physical risks result with irreversible changes in the climate system. Meanwhile, transition risks remain very low.

**Limitations:** The Trustee accepts there are limitations involved within climate scenario analysis, including the potential underestimation of climate risk. The Trustee therefore uses the scenario analysis for comparative purposes rather than analysing the absolute magnitude of results. Further detail can be found in the Appendix.

# Strategy

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

### Climate Scenario Analysis – Overview of key findings

#### Scenario analysis

Our analysis shows that climate change represents a funding risk to the Plan over short, medium and long-term time horizons.

- Over the shorter and medium term, the costs associated with the transition to a lower carbon economy have a greater impact in the Net Zero 2050 scenario compared to the other scenarios. This reinforces the focus on investing in companies that are prepared for the transition, where transition risks are minimised.
- Over a longer period, the costs relating to physical damages could be significant and the benefits of transitioning to a lower carbon economy can be observed by the Plan's estimated funding surplus under the Net Zero 2050 scenario compared to the other scenarios.
- In all scenarios the world becomes more uncertain as climate risks begin to materialise. Therefore, our modelling implies that investors could flock to safer assets like government bonds leading to a fall in yields. This would benefit the Plan's gilt holding within the LDI portfolio, as seen across all four scenarios. The asset class with potentially the greatest exposure to climate risk (both transition and physical) is equities, albeit this is only 5% of the Plan's strategic asset allocation.
- The Plan's actuary concluded that the inflation stresses have a relatively modest impact on the Plan's liabilities, while interest rate stresses have a more variable result with a Net Zero 2050 scenario having the largest impact on the Plan's liabilities. In terms of longevity stresses, the 'head- in- the- sand' scenario results in the largest impact on liabilities.*

#### Opportunities

The following opportunities could be explored to further mitigate some of the climate impact on the assets:

- Engaging with the Plan's equity manager with an explicit focus on transition risks. This engagement could highlight the risks to the Plan (and to other investors in the wider equity fund); engaging with the Plan's Liability-Driven Investment ('LDI') manager to incorporate additional "green" features into the LDI, Asset-backed Securities ('ABS') and credit mandates. With the LDI mandate, there is more flexibility to make changes due to the segregated nature of the holding.
- When considering future investments (e.g. when capital is returned by the private mandates), the Trustee will incorporate ESG and climate related factors. The Trustee may consider nature or climate related solutions (in public or private markets) if they feel this would help the Plan to achieve its long-term objectives.

Note: *Please see appendix for relevant caveats from the actuary.

# Strategy

Low
Average
High

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

**Climate dashboard –** The Pensions Regulator proposes that a climate risk dashboard could be one of many steps the Trustee takes to meet their risk management obligations. The below has been prepared based on the results in the Trustee's scenario analysis report (including the modelled actuarial impacts). The colours reflect the Plan's investment adviser's interpretations of the scenario analysis results, with a qualitative overlay.

| Risk | Time frame | Assets | | | | | | | | Liabilities | Covenant |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LDI | ABS | Equity | Loans | Private Debt | Frontier Debt, High-Yield Debt and Global Credit | Private Debt Secondaries | Infra Equity | | |
| Transitional (net zero scenario*) | Short term (1 year) | | | | | | | | | This scenario leads to an increase in the Plan's liabilities of 6% due to longer life expectancies | |
| | Medium term (6 years) | | | | | | | | | | |
| | Long term (15 years) | | | | | | | | | | |
| Physical (current policies scenario**) | Short term (1 years) | | | | | | | | | This scenario leads to a decrease in the Plan's liabilities of 13% as there are lower life expectancies | |
| | Medium term (6 years) | | | | | | | | | | |
| | Long term (15 years) | | | | | | | | | | |

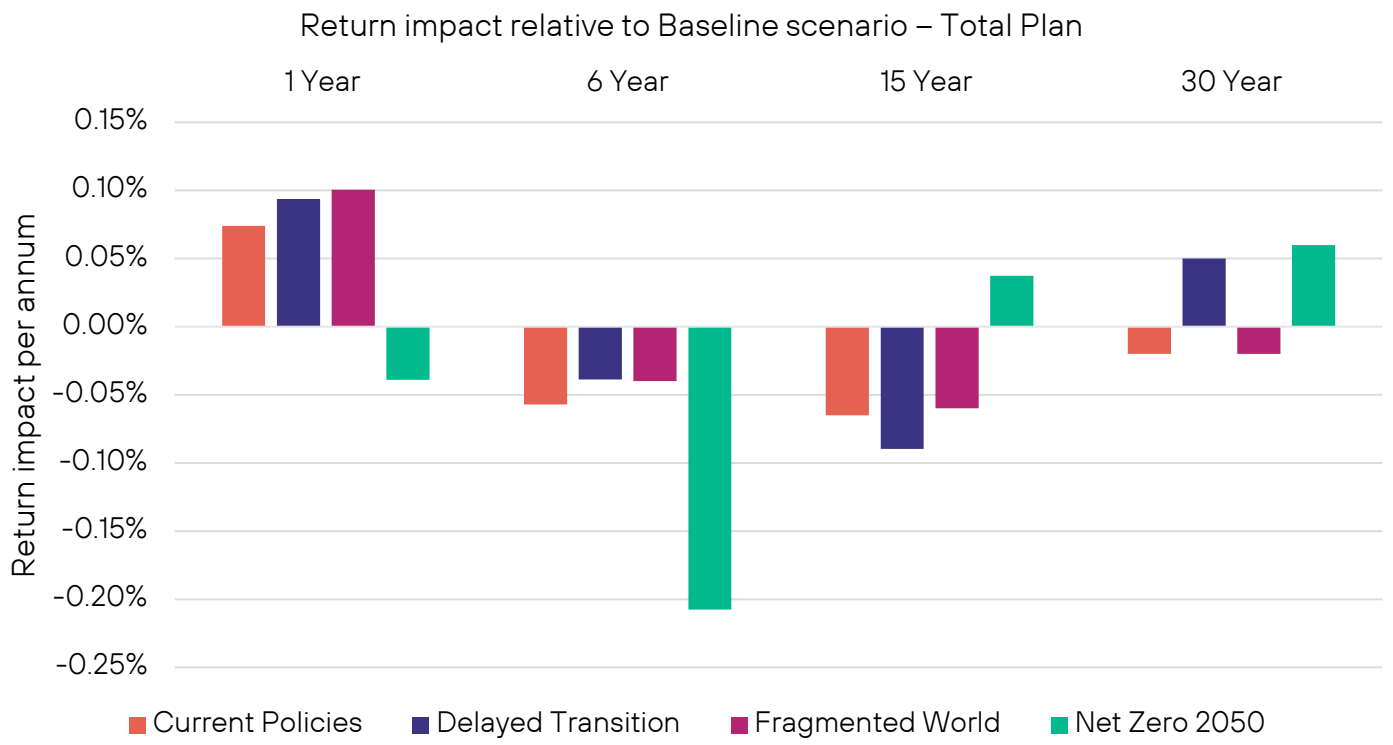
Note: The directional impacts under the 2050 Net Zero and Divergent Net Zero scenarios are likely to be similar, albeit the magnitude and timing is expected to differ. *The Plan actuary's Green revolution scenario has been used to show the impact on liabilities. ** The Plan actuary's "Head-in- sand" scenario has been used to show the impact on liabilities.

# Strategy

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

### Climate Scenario Analysis – Total Plan

**The chart below shows the modelled impact on investment returns under the Plan's strategic asset allocation for each of the climate scenarios (based on median projections in all cases).**




Modelling notes: see notes on page 26.

**Key points**

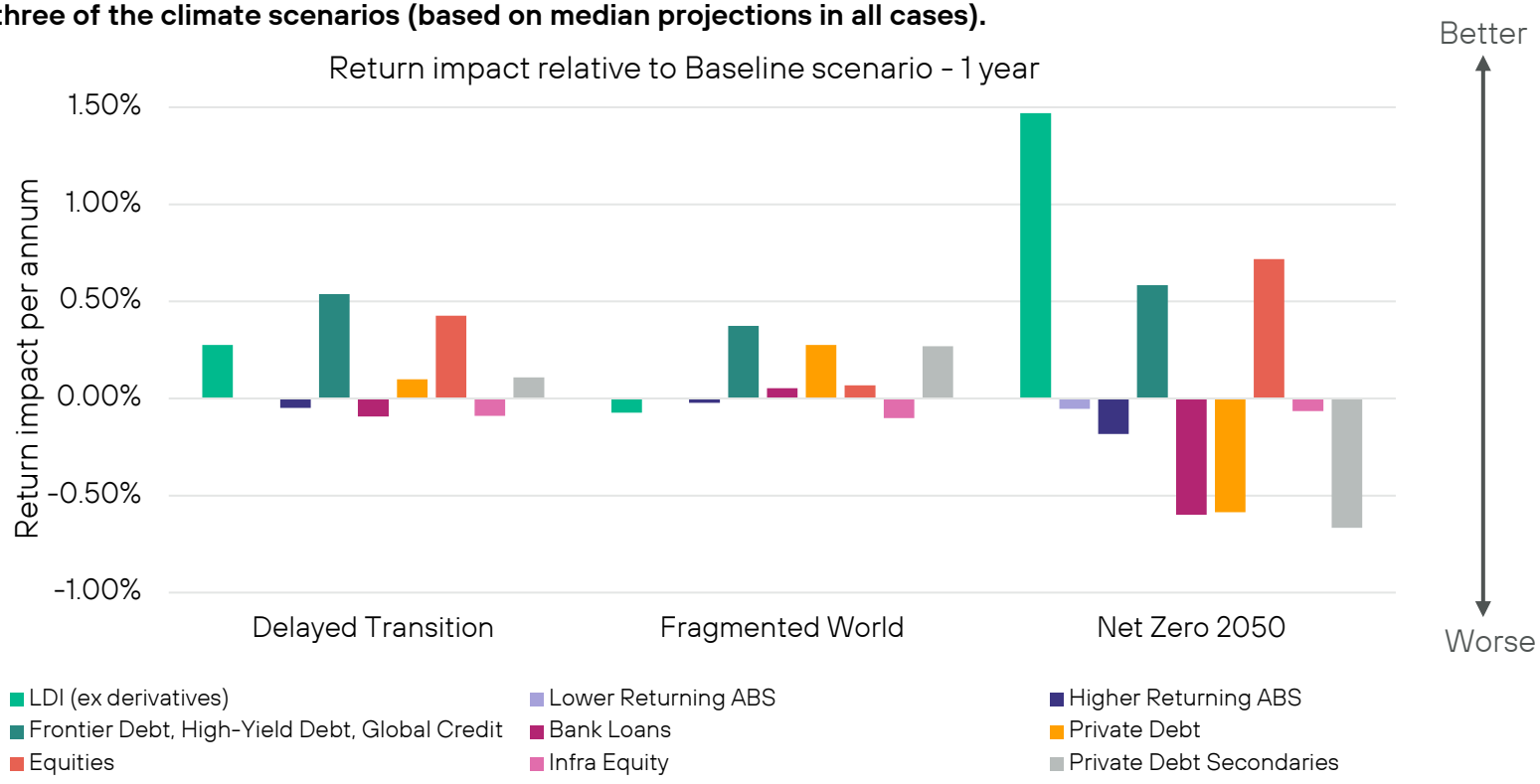
- Overall, this analysis suggests that the investment strategy would be fairly resilient under all modelled climate scenarios, given the modest impact on the Plan's asset return expected from these shocks.
- Over the short term, the Net Zero 2050 scenario experiences the largest cost to return relative to the baseline scenario due to transition costs. In the other scenarios, transition costs are low and physical costs are not yet felt.
- The Trustee recognises that investing in companies that are already prepared for the transition will help to minimise these transition costs / risks. The Trustee will consider this in strategic reviews and when planning engagement with the Plan's managers.
- Over the medium to longer term, physical damages start to appear, and the net zero scenario starts to outperform other scenarios.

# Strategy

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

### Climate Scenario Analysis – Asset Classes – Short Term

**The chart below shows the modelled impact on the Plan's individual asset classes over the short term for three of the climate scenarios (based on median projections in all cases).**




Modelling notes: see notes on page 26.

**Key points**

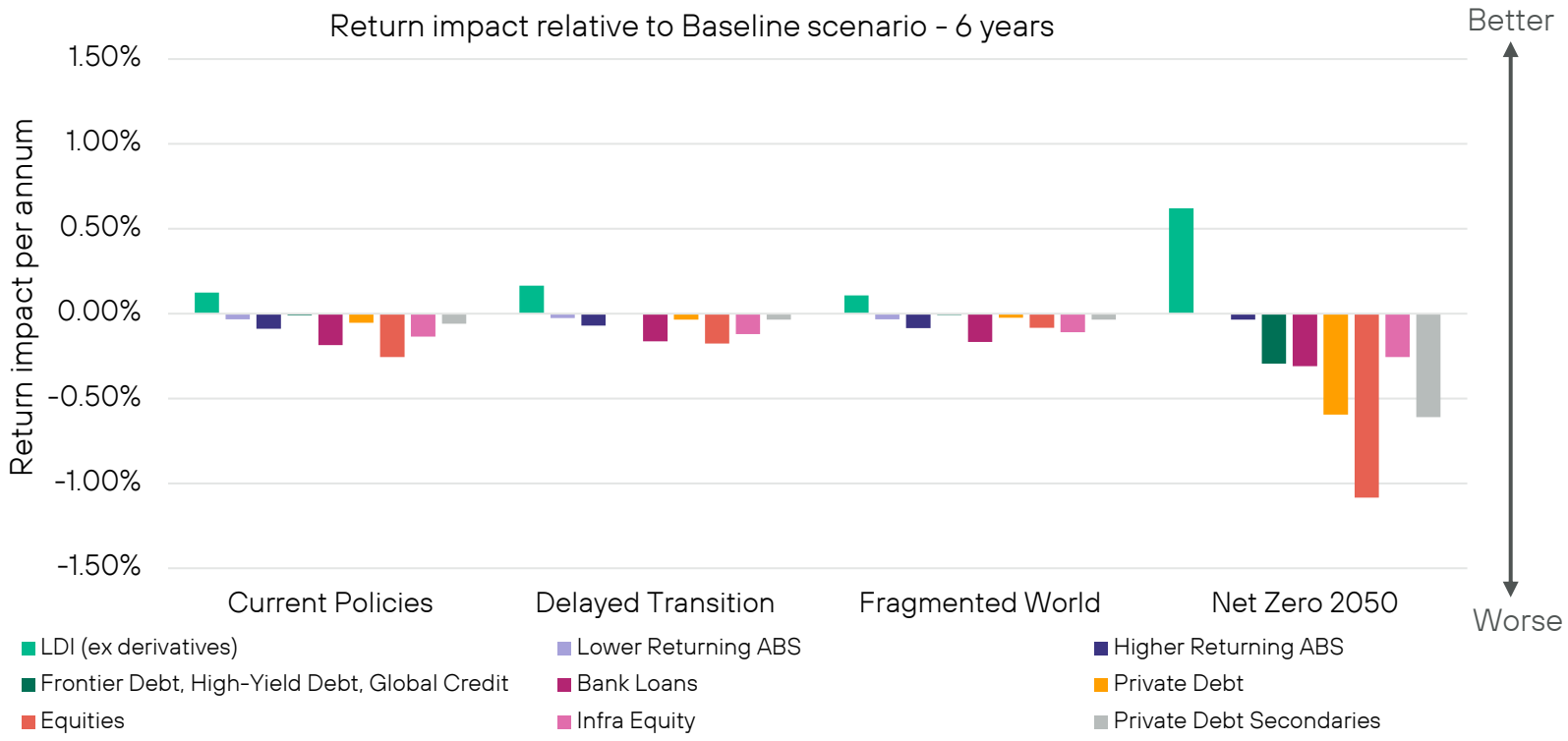
- Liquid markets are the first to be impacted as they quickly price in climate risks.
- In a net zero scenario, we assume investors seek out the highest credit quality, increasing the demand for gilts in the LDI portfolio.
- Transition risks show through more strongly in the short-term, impacting some of the Plan's higher-returning asset classes.
- Physical risks are extremely modest in the short-term and hence have a limited impact on the asset-class returns.
- It should be noted that when looking at a single year there can be random noise, and these results should only be considered within the wider context of this report.

# Strategy

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

### Climate Scenario Analysis – Asset Classes – Medium Term

**The chart below shows the modelled impact on the Plan's individual asset classes over the medium term for each of the climate scenarios (based on median projections in all cases).**




**Key points**

- Over the medium term, Transitional and Physical costs increase, which the modelling assumes causes investors to flock to safer assets.
- Higher transition costs are assumed to be particularly impactful under the Net Zero 2050 scenario.
- We assume costs relating to physical damages begin to appear in the other scenarios, albeit they are still somewhat limited over this period.

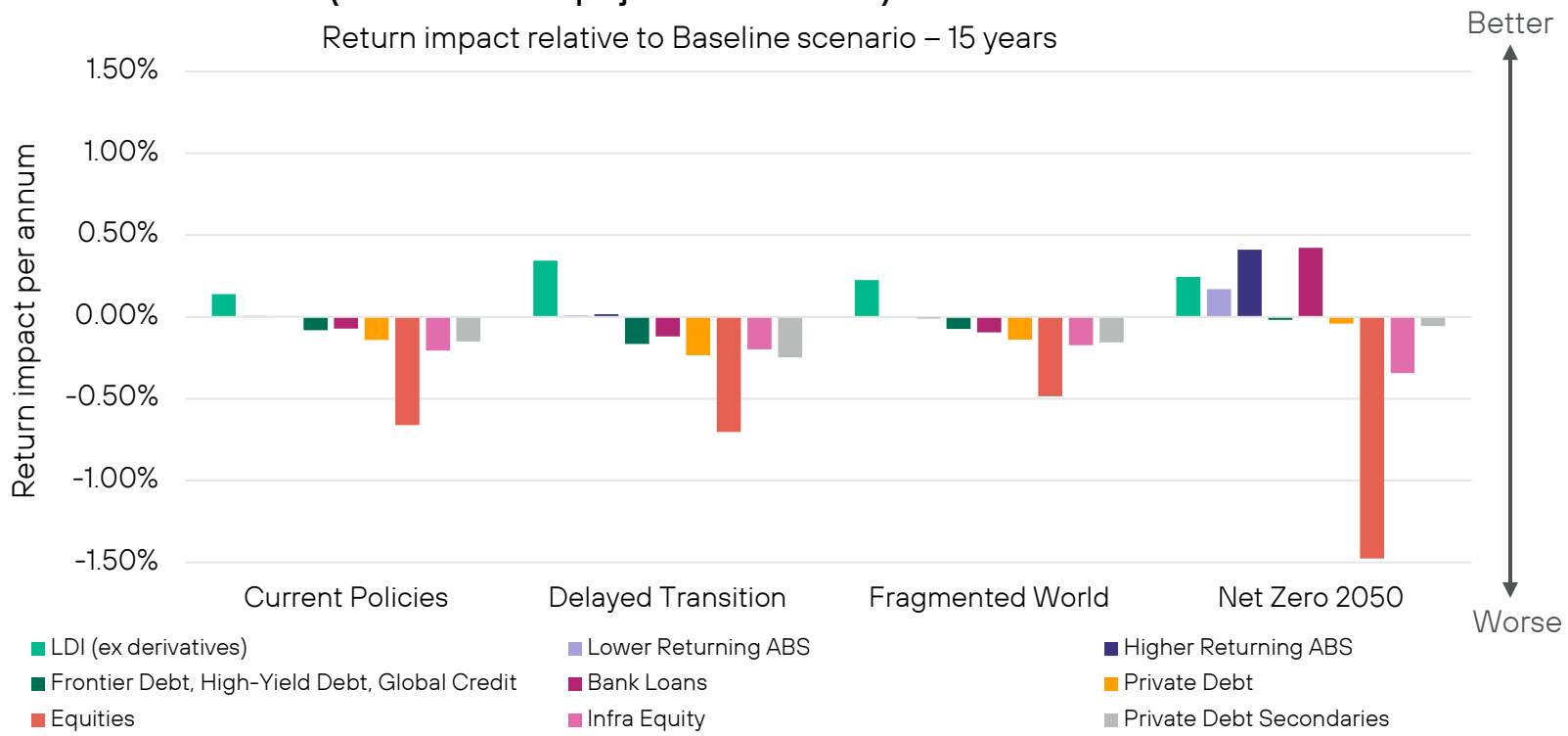
Modelling notes: see notes on page 26.

# Strategy

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

### Climate Scenario Analysis – Asset Classes – Long Term

**The chart below shows the modelled impact on the Plan's individual asset classes over the long term for each of the climate scenarios (based on median projections in all cases).**




**Key points**

- The long-term time horizon assumes an intersection of reducing transitions costs and rising physical costs.
- Both transitional and physical costs are apparent for equities across all scenarios.
- In all scenarios, yields are assumed to decrease as investors flock to safer assets, benefitting the LDI portfolio.
- Physical costs are assumed to be less impactful in the Net Zero scenario as the climate change impact is minimised, compared to the other three scenarios.

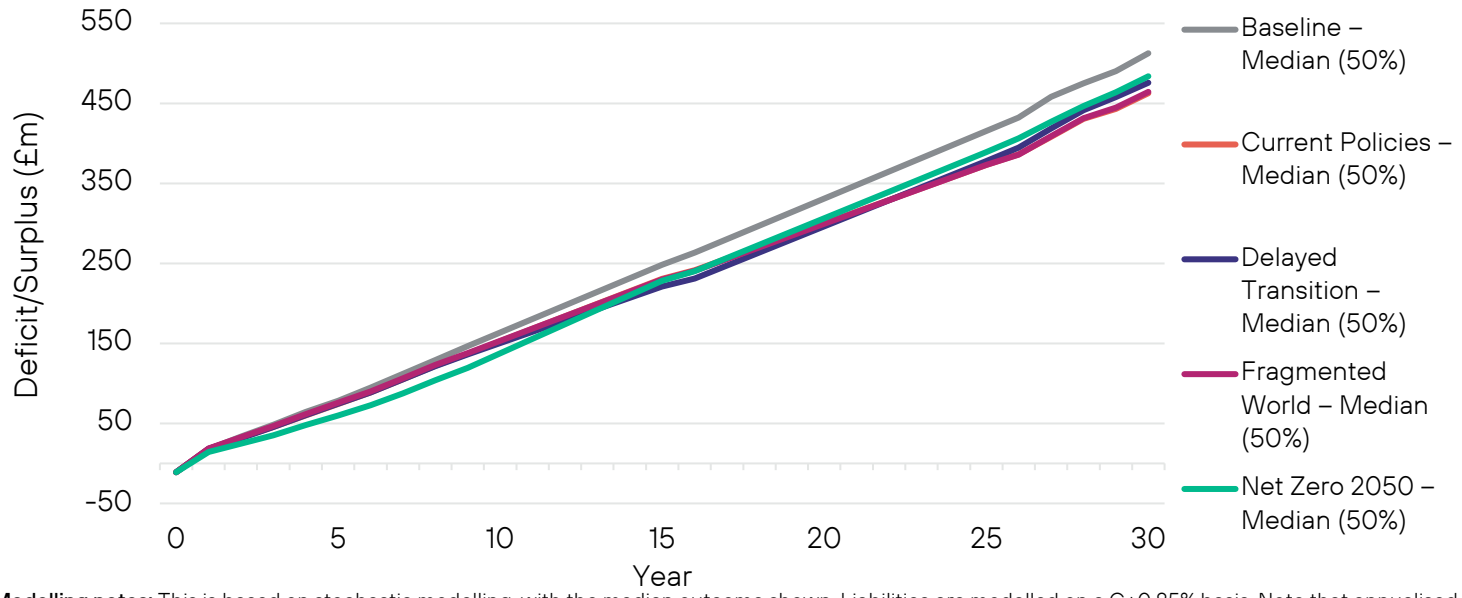
Modelling notes: see notes on page 26.

# Strategy

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

### Climate Scenario Analysis – Funding Position

**The chart below shows the modelled change in surplus/deficit under the Plan's strategic asset allocation for each of the climate scenarios (based on median projections in all cases).**




**Modelling notes:** This is based on stochastic modelling, with the median outcome shown. Liabilities are modelled on a G+0.85% basis. Note that annualised return impacts 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 30 years, in theory, markets may price these in sooner. The LDI represents 60% hedging of liabilities on a gilts flat basis. The LDI portfolio has been assumed as 50% nominal gilts, 50% real gilts and excludes derivatives. The Baseline scenario assumes no transition or physical impacts of climate change i.e. a climate neutral scenario. 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. Isio's climate model has been developed in partnership with Moody Analytics and based on NGFS scenarios. Commentary is Isio's interpretation of results.

Source: Isio, Moody's.



**Projected surplus/(deficit) (£m, median)**

| Scenario | 1 year | 6 years | 15 years | 30 Years |
|---|---|---|---|---|
| Baseline | 18 | 95 | 248 | 513 |
| Net Zero 2050 | 14 | 73 | 228 | 484 |
| Delayed Transition | 18 | 89 | 221 | 476 |
| Fragmented World | 19 | 90 | 230 | 464 |
| Current Policies | 18 | 89 | 231 | 463 |

**Key points**

- Overall, the Plan's funding position is expected to remain resilient to various climate related scenarios and risks over the short, medium and long term.
- The median outcome in all climate scenarios shows a lower surplus vs a "baseline" world with no climate impact. This reflects assumed transition and physical costs.
- Over the very long-term (30 years) net zero is the "best" scenario, only reducing the surplus by £29m relative to the baseline. The "worst" scenario is one where current policies continue (projected impact of £50m lower surplus versus the baseline).

# TCFD Recommendations – Risk Management

# Risk Management

## Describe the processes for identifying and assessing climate-related risks

As part of the Trustee's responsibility for setting and implementing of the Plan's ESG Beliefs Policy, the Trustee must ensure that ESG related risks, including climate change, are identified, assessed and effectively managed. Therefore, it is crucial that the management of these risks is integrated into the overall risk management of the Plan. The Trustee delegates aspects of this responsibility to other parties (such as the Plan's investment managers), but retains overall oversight, as set out previously in the Governance section of this report. Below, where we have referred to ESG risks more broadly, this will include consideration of climate change risks. The Trustee's approach to risk management and governance of climate risk has not changed since last year's report.

At a high level, the Trustee's risk management process comprises **identification, assessment, monitoring** and **control** of risk. The Trustee currently takes a top-down approach to risk management, which uses their strategic objectives as the starting point for their risk management process.

The Trustee and their advisers are responsible for identifying risks as appropriate, while information from a number of sources such as investment managers and Moody's are used to quantify risk exposures.

Once risks are identified, they are then evaluated and prioritised based on the overall threat posed to the Plan. This helps the Trustee build up a picture of the Plan's risks more widely and where climate-related risks sit in the overall risk management framework. ESG risks are identified in the following processes:

| Process | Description | Examples |
|---|---|---|
| **Investment strategy reviews** | The Trustee considers ESG risks as part of the Plan's regular investment strategy reviews alongside each Actuarial Valuation and on an ad hoc basis as required. These reviews cover the extent to which ESG considerations are taken into account in the selection, retention and realisation of investments.<br><br>The Plan's investment advisers are expected to integrate ESG considerations into strategy advice and to highlight any key risks associated with any potential investment strategy.<br><br>The Trustee completes climate scenario analysis at least every three years. This analysis supports the Trustee's investment strategy decision making by informing how different investment strategies influence the extent of climate-related risks in the Plan's assets. | When selecting the new investment managers, the Trustee considered each mandate's ESG credentials prior to investing. As part of the Trustee's continued monitoring, it has also completed a further review of how each mandate implements ESG, taking the opportunity to engage further with those managers where the Trustee believes it can make a meaningful impact.<br><br>The Trustee completed climate scenario analysis for the Plan during the year, stressing the funding level with four climate scenarios. |

# Risk Management

## Describe the processes for identifying and assessing climate-related risks

| Process | Description | Examples |
|---|---|---|
| **Valuations and covenant reviews** | ESG risks are considered as part of the triennial Actuarial Valuation process, ensuring that this analysis considers the funding, covenant and investment risks in a joined-up way.<br><br>The Scheme Actuary will consider ESG risks as part of the actuarial assumptions advice and any projections which are considered to evaluate the possible long-term funding outcomes for the Plan. When assessing the employer's covenant, ESG risks to the employer are also considered. | As part of the Trustee's climate scenario analysis, the Plan's actuary and covenant adviser produced analysis, shocking the liabilities and sponsor's covenant, respectively, on various climate scenarios. |
| **Considering asset classes** | Potential ESG risks are assessed and discussed as part of the training provided to the Trustee.<br><br>The Trustee's investment adviser considers ESG risks as part of their research into different asset classes. This will influence their decision to issue a "buy" or "sell" rating to different asset classes. The investment adviser shares their research with the Trustee to help it form its views on suitable investments for the Plan. | During the year, the Trustee has considered asset classes to use in future for re-investing surplus cash. Discussions on ESG formed part of this process. |
| **Selection of investment managers and investments** | On an annual basis the Trustee receives a "Sustainable Integration Assessment" from its investment adviser. This report analyses and scores the Plan's investment managers' ESG policies and processes, as well as provide feedback points to the managers on where they can improve. The Trustee repeats this exercise on an annual basis to identify any changes in the managers' processes and to understand progress against previous engagement points.<br><br>The Plan's investment managers are responsible for the identification and assessment of ESG, including climate related risks and opportunities and will be expected to identify and disclose these risks to the Trustee. This could be during their presentations to the Trustee or by providing climate metric data in line with the TCFD requirements. | The annual Sustainable Integration Assessment is an opportunity for the Trustee to engage with the Plan's managers on areas of concern/or potential improvements. This Assessment report is discussed at an IC meeting and the Trustee determines which managers to engage formally with.<br><br>The Trustee also considers ESG capabilities and characteristics when selecting new managers or funds to invest in (e.g. ESG was considered when the new strategy was designed during the prior year, including a number of new mandates). |

# Risk Management

## Describe the processes for managing climate-related risks

### Prioritising risks and agreeing actions

The Trustee prioritises risks based on the size, scope and materiality of the risk event. This includes rating the likelihood and impact of the risk event to produce a score reflecting the threat that the risk event poses to the Plan, then making a decision on the appropriate action (mitigation, control or acceptance) based on this score and available courses of action. This is documented in the Plan's risk register and is reviewed annually. This process helps the Trustee build up a picture of the Plan's risks more widely and where ESG risks sit in the overall risk management framework.

Once the risks the Plan faces have been considered and prioritised, mitigation strategies will be established and monitored to ensure that they remain effective. We will delegate the management of certain risks to other parties, as set out in the Governance section. Risks that are deemed to be high in likelihood, impact, or both after allowing for mitigating controls are deemed to take priority for future action.

An action in the context of risk management will aim to either introduce an additional control to mitigate the likelihood of a risk occurring or reduce the impact of a risk should it occur. This discussion will also consider whether additional Trustee training is required.

### Expectations of investment managers

The Trustee's expectations of the investment managers with regard to the integration of ESG risks are set out in the Plan's Statement of Investment Principles ("SIP") and ESG Beliefs policy. The Trustee monitors the ESG activities of all managers through regular reporting and meetings, as set out above.

In summary, the Trustee will expect all of its investment managers to:

- be aware of the investment risks and opportunities associated with climate change;
- incorporate climate considerations into the investment decision making practices and processes;
- monitor and review companies and assets in relation to their approach to climate change.

# Risk Management

## Describe the processes for managing climate-related risks

### Expectations of investment managers

In addition, the Trustee, with the assistance of its investment adviser, prepares an annual Implementation Statement which assesses the engagement and voting activities of investment managers and is used to monitor managers' activities in this area.

The Plan's approach to stewardship is also a key aspect of the management of climate-related risk. The Trustee expects their investment managers to consider and take appropriate steps to manage climate-related risks within their funds, including engaging with underlying investee companies on climate risk management.

The Trustee identifies whether the managers are acting in line with the Trustee's principles via the annual Sustainable Integration Assessment reports. The Trustee, with the support of its investment adviser, will engage with the Plan's managers to help improve the managers' processes where risks have been identified. If improvements are not seen over time, the Trustee will consider how to escalate its concerns which could include instructing managers to disinvest from certain investments or by disinvesting from specific investment mandates.

### Sustainable Integration Assessment – example evaluation criteria

The Trustee's Sustainable Integration Assessment assesses a broad range of ESG risks, however, has a significant focus on climate-related risks. The report aims to assess the managers over 5 assessment areas as outlined in the table below.

| Assessment category | Evaluation criteria |
|---|---|
| **Investment approach** | Is there a clear approach/framework for integrating ESG factors? |
| **Risk management** | Are ESG factors integrated holistically in the manager's risk management framework? |
| **Stewardship** | Is there evidence of ongoing engagement with companies on ESG issues to help initiate change? |
| **Reporting** | Can the manager provide meaningful and regular reporting on ESG issues, including voting and engagement activities? |
| **Collaboration** | Is there evidence of engagement with other stakeholders and market participants to encourage best practice on various ESG issues? |

# Risk Management

## Describe the processes for managing climate-related risks

### Results and Engagements

The conclusions from the assessment were that all managers' ESG practices were broadly in line with the previous year. Whilst there were no immediate red flags the Trustee took this opportunity to engage with the three managers where it believed 1) there was room for improvement and 2) the Trustee could potentially influence the manager's approach / behaviour.

| Manager | Engagement Points |
|---|---|
| **Manager 1** | • **Investment Approach** - consider traditional exclusions for the portfolio, including a formal exclusion to tar and oil sands. Consider establishing specific ESG objectives across all funds held by the Plan.<br>• **Reporting** - Be able to provide a breakdown of whether TCFD metrics data (GHG emissions and Carbon footprint, scope 1 & 2) is verified, reported or estimated. |
| **Manager 2** | • **Reporting** - consider adding some standard ESG metrics to regular reporting (scope 1 & 2 GHG emissions and Carbon Footprint).<br>• **Investment Approach** - Consider a minimum allocation to green assets. |
| **Manager 3** | • **Reporting** - include examples of ESG engagements in the fund's regular reporting. Work with the Trustee's investment adviser to improve the format of their TCFD data reporting. |

# Risk Management

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

**Management of ESG risks**
The management of ESG risks is integrated into the Plan's current risk management processes in the following ways:

| Management methods | Description |
|---|---|
| **Valuations and covenant reviews** | When assessing the employer's covenant the Trustee reviews the employer's plans to manage the ESG risks identified.<br><br>The Trustee considers the extent to which any adjustment is needed to the funding approach or strategy as a result of any ESG risks identified through the "identifying" stage described above. This will be considered in the context of the investment and covenant risks faced by the Plan and may consider the appropriateness of actuarial assumptions and of overall security provided to the Plan. |
| **Setting strategy and choosing asset classes** | Determining whether exposure to any asset class should be reduced, increased or avoided in light of the ESG risks identified. |
| **Selection of investment managers** | The Trustee considers whether or not to invest with managers whose mandates are expected to introduce an unacceptable level of risk or who do not have adequate processes for the identification and management of ESG risks. |
| **Monitoring current investment managers / Individual mandates and investments** | The Trustee expects its investment managers to manage the ESG risks identified within their own mandates by:<br><br>• Integrating the analysis of these risks into the overall assessment of any potential investment.<br><br>• Engaging with investee companies where risks have been identified, to understand and encourage their management of ESG (in particular, climate-related) risks.<br><br>The Trustee will monitor the Plan's Investment Managers via the Sustainable Integration Assessment previously outlined. If required, the Trustee will engage with the managers to make improvements. |

# Risk Management

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

**Risk register**

Climate change is included within the Plan's risk register in the context of the risk of the investment strategy or investment managers underperforming. Relevant controls and mitigating actions are also documented. The risk register is reviewed regularly by the Trustee.

Climate risks are identified by the Trustee and their advisers as appropriate. These risks are then added to the Plan's risk register which forms part of the Plan's overarching Integrated Risk Management approach and framework. This includes rating the likelihood and impact of the risk event to produce a score reflecting the threat that the risk event poses to the Plan, then making a decision on the appropriate action (mitigation, control or acceptance) based on this score and available courses of action. Appropriate controls and mitigating actions are determined and put in place as part of the process to add these risks to the Risk Register.

In 2024, the Trustee's investment adviser proposed the following additions to the risk register to ensure climate considerations are incorporated. These were reviewed as part of the Plan's wider risk register review, noting that there was no proposed additions to risk register in 2025.

| | Potential risk: | Potential control measures: |
|---|---|---|
| **Investment strategy** | – 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. | – Professional advice from investment adviser.<br>– Monitor TCFD metrics which will capture underlying contributions to climate change and will manage performance against this. |
| **Asset and investment manager allocations** | – Investment managers do not adequately integrate financially material ESG factors (including climate risks) in their risk management framework.<br>– Investment managers do not adopt effective stewardship or collaborate to encourage best practice in addressing systemic climate risks.<br>– Investment managers do not adopt effective stewardship or do not collaborate to encourage best practice in addressing climate risks.<br>– 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. | – The Trustee has communicated clearly to the Plan's managers, that it expects them to manage climate risks using their engagements.<br>– Investment adviser facilitates ongoing engagement with managers and reports to the Trustee.<br>– Ongoing Trustee training on climate risks within investments.<br>– The Trustee will consider ESG and climate factors in selection and appointment of new mandates.<br>– The Trustee regularly reviews the managers' approach to ESG and climate risk management. |

# TCFD Recommendations – Metrics and Targets

# 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**

The Trustee selected and monitored four climate metrics for the Plan during the year:

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

**Monitoring**

The Trustee will assess these metrics at least annually, in order 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.**

**Rationale for selection of metrics**

The metrics were chosen based on their potential to add value to the Trustee's decision making. The Trustee has reported, where available, on Scope 1, 2 and 3. However, the Trustee notes that while there are clear data quality challenges, Scope 3 emissions reporting continues to evolve.

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 adviser 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. This is why the Trustee has chosen to monitor data quality as the fourth metric and have asked our investment adviser, on behalf of the Trustee, to engage with the Investment Managers to seek improvements in data quality – focussing on managers where data quality is currently poor. In relation to the Plan, the Trustee has found that the Plan's private market mandates generally lag behind other sectors in terms of data quality. Given the Plan's current exposure to these assets, the Trustee finds data quality to be a relevant metric for monitoring.

# 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 Plan as at 31 December 2024 (or the data at the best-available proximate date) and the results are set out below. This helps record progress against which future action can be measured, so that trends over time and problem areas within the portfolio can be understood. The metrics for LDI are reported separately due to the differences in metric definitions compared to the growth assets. Details of the Plan's metrics at the mandate level and notes to the data can be found in the appendix.

| Growth Mandates (c.75% of Plan assets) | Total GHG emissions | | Carbon footprint | | Data quality % of scope emissions intensity that are: | | | | Implied Temperature Rise | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Metric, $tCO_2e$ | Coverage | Metric, $tCO_2e$/ £1m of EVIC | Coverage | Verified | Reported | Estimated | Unavailable | Metric | Coverage |
| Scope 1 & 2 | 48,617 | 77% | 82 | 77% | 4% | 17% | 56% | 23% | 3.3°C | 13% |
| Scope 3 | 109,837 | 31% | 376 | 31% | - | - | 100% | - | | |
| **LDI Mandate* (c.25% of Plan assets)** | Metric, $tCO_2e$ | Coverage | Metric, $tCO_2e$/ £1m of PPP adjusted GDP | Coverage | Verified | Reported | Estimated | Unavailable | Metric | Coverage |
| Scope 1 & 2 | 85,897 | 100% | 252 | 100% | 0% | 0% | 100% | 0% | - | - |
| Scope 3 | 56,581 | 100% | Unavailable | Unavailable | 0% | 0% | 100% | 0% | - | - |

Sources: Investment managers, investment adviser's calculations.
Notes: $tCO_2e$: Tonnes of carbon dioxide equivalent, where $CO_2e$ expresses the impact of each different greenhouse gas in terms of the amount of $CO_2$ that would create the same amount of warming.
EVIC: Enterprise value including cash. Coverage: Denotes the proportion of each fund where data is available. Figures rounded to nearest whole number or percentage. Current asset allocation as at 31 December 2024.
*LDI mandate emissions shown are including Land Use, Land Use Change and Forestry ("LULUCF"). The Partnership for Carbon Accounting Financials (PCAF) specifies a method of calculating metrics, to promote consistency. The total coverage numbers on this page are calculated relative to the Plan's total asset value. Please see appendix for further caveats.

# Metrics and Targets

Metric improved versus 2023 value

Metric deteriorated versus 2023 value

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

**Absolute emissions (Scope 1 & 2 $tCO_2e$)**
2024 value : 134,514
Change vs last year: c.+3%

**Carbon footprint (Scope 1 & 2 $tCO_2e$ / £1m of EVIC)**
2024 value: 129
Change vs last year: c.-21%

**Absolute emissions (Scope 3 $tCO_2e$)**
2024 value: 166,418
Change vs last year: c.-20%

**Carbon footprint (Scope 3 $tCO_2e$ / £1m of EVIC) (excl. LDI)**
2024 value: 376
Change vs last year: c.+156%

**ITR alignment**
2024 value: 3.3
Change vs last year: c.+0.7

**Data quality (Scope 1 & 2) (excl. LDI)**
2024 value: 77%
Change vs last year: c.+45%

**Absolute emissions have increased across scope 1 & 2**, potentially due to strategic exposures to new mandates and improved data coverage, rather than necessarily a deterioration in portfolio emissions. Scope 3 absolute emissions decreased, and coverage improved from 19% to 31%. Scope 1 & 2 coverage also increased from 32% to 77%, giving a more complete emissions picture this year.

**Scope 1 & 2 carbon footprint has decreased,** likely driven by the lower intensity profile in LDI. The footprint from illiquid assets improved, and overall changes remain within expected year-on-year variability.

**The portfolio's Implied Temperature Rise (ITR) has worsened** moving from 2.6°C to 3.3°C. This is potentially a result of increased coverage of this metric moving from 2% to 13%. The Trustee hopes to see improved coverage of this metric in future years.

**Scope 3 carbon footprint has increased,** likely reflecting a significant increase in data coverage from 19% to 31%.

**Data quality has improved,** moving the Plan ahead of target. The data quality score this year is 77%, versus 32% last year, reflecting better disclosure across public mandates. This positive change has led to the Trustee implementing a new target for the next 3 years.

# Metrics and Targets

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

**Target setting**

In March 2024, the Trustee agreed to a target to increase data quality scores (emissions verified, reported or estimated) (excl. LDI) over a period of 3 years (relating to Carbon Footprint covering Scope 1 & 2) from 31 December 2023. Progress against this are reported below. The significant progress against the Trustee's target was driven by stronger data quality from the new mandates that the Plan had invested in as part of a strategic update by the Trustee.

### March 2024

The Trustee agreed to target **65%+** of the data for the total portfolio to either be verified, reported by the underlying company or estimated by the manager by December 2026.

### 2025 Onwards...

The Trustee has set a **new data quality target of 85%+ (excl LDI assets) by 31 December 2027.**

The Trustee and their investment adviser will continue engaging with managers to improve data quality.

### 31 December 2023

Data Quality: **32%** of data verified, reported or estimated, excluding LDI data.

When including the LDI portfolio this figure is **56%**.

### 31 December 2024

Data Quality: **77%** of data verified, reported or estimated, excluding LDI data.

When including the LDI portfolio, this figure increases to **83%**.

**The Plan has now achieved the 65%+ target.**

# Appendix

# Strategy

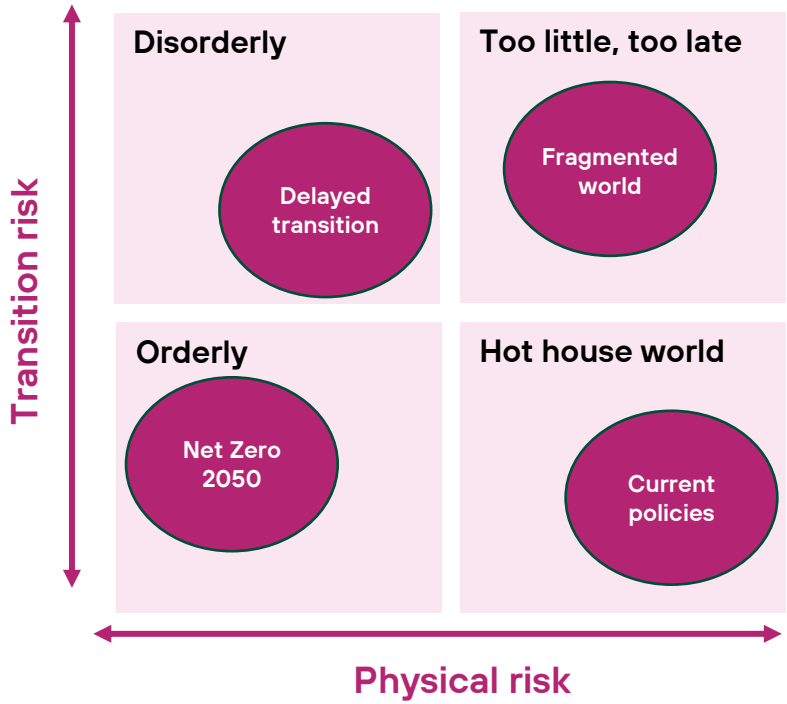
## Scenario analysis appendix

### What is climate modelling?

- Climate modelling involves the use of computer simulations to replicate the Earth's climate system.
- These models integrate data from various sources, including historical climate records, atmospheric physics, oceanography, and geology, to simulate past, present, and future climate conditions.
- Climate models are crucial for understanding the drivers of climate change, assessing potential impacts on ecosystems and human societies, and informing policy decisions aimed at mitigating and adapting to climate change.
- The model projects possible socioeconomic futures under different climate scenarios and how these translate into investment outcomes. These different futures can help to understand the possible range of climate-related risks and opportunities that could arise, to ensure the resiliency of client portfolios to climate change outcomes.
- As evidenced by the Financial Markets Law Committee's ('FMLC') latest iteration, climate change should no longer be considered as a non-financial risk, but as a financial one.

### Overview of transition and physical risk

- **Transition risks –** risks arising from the transition to a low carbon economy, which are expected to be strongest in the short-term given climate-related regulatory developments, market trends and decarbonisation action. The timing and the speed of the transition are important in determining the extent of transition risks.
- **Physical risks –** risks arising from the physical impacts of climate change (including both sudden onset natural disasters and slower shifts in weather patterns), which are expected to scale up in the long-term - as atmospheric emissions increase global average temperatures, impacting on climate systems. This warming will make the climate more extreme and unpredictable, with impacts most severe under high emissions scenarios.



# Strategy

## Scenario analysis appendix

### Data and sources

- Information on characteristics of the Plan's liability profile, including the split between membership types, was taken from information provided by Hymans Robertson in relation to the 31 March 2021 actuarial valuation. The 31 December 2023 funding level was also provided by Hymans Robertson.

### Modelling principles

- SOFIA is 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 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).
- Based on the scenarios generated by the ESG, SOFIA simulates asset-class returns calibrated to Isio's asset-class assumptions.
- SOFIA takes the initial starting position of the assets and the liabilities, 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, SOFIA assumes that the strategy remains constant over the full projection period. Assets are annually rebalanced back to the original allocations.

### Modelling results

- The results of the projections are shown by ranking the calculated results from best to worst in each year, and presenting the following outcomes:
- Median: this is the middle outcome and can be thought of as the "expected result". Half of the modelled outcomes are better than this and half are worse.
- Bad: this splits the results so that there is a one in five (20%) chance of having a worse outcome. This is a measure of risk.
- Very Bad: this splits the results at a one in twenty (5%) chance of having a worse result. This is a more extreme measure of downside risk.
- Good and Very Good (where shown): these illustrate possible positive outcomes at the 20% and 5% levels respectively.
- The "Value at Risk", where shown, is defined as the difference between the Median outcome and the Very Bad outcome, i.e. it represents the variability of funding outcomes and shows the magnitude of the possible downside from the expected result. Please note that this is not the same as the possible downside loss from the starting position.

# Strategy

## Scenario analysis appendix

### Compliance statement

- This report, and the work relating to it, complies with "Technical Actuarial Standard 100: Principles for Technical Actuarial Work" ("TAS 100").
- This report has been prepared for the purpose of assisting the addressee in their review of the investment strategy. If you intend to use it for any other purpose or make any other decisions after considering this report, please inform Isio and we will consider what further information or work is needed to assist you in making those decisions.

### Material assumptions

- Isio's central asset-class assumptions are assessed and revised at each calendar quarter-end. The assumptions used within this modelling exercise are set out in the Appendix.
- Certain assumptions are sourced directly from the Moody's Analytics ESG and available market data, or set via adjustments to these sources. Where required or deemed to be more appropriate, assumptions are entirely determined by Isio. The assumption setting process is subjective and based on qualitative assessments rather than a wholly quantitative process. Where judgement is required, input is received from Isio's internal asset-class research teams.

### Limitations and risk warnings

- The only risk factors considered in our modelling are those that affect the values of pension schemes' assets and the financial assumptions used to value schemes' liabilities. Some of the risks that are not reflected include demographic risks (e.g. uncertainty of life expectancy), future changes to members' benefits, and legislative risks. The modelling results should therefore be viewed alongside those risks, as well as 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.
- The modelling analysis is based on portfolios containing a range of asset classes and different approaches to fund management. Clients should not make decisions to invest in these asset classes or approaches to fund management based solely on the modelling analysis.
- Portfolios that make use of derivatives are exposed to additional forms of risk and can experience losses greater than the amount of invested capital.
- No guarantee can be offered that actual outcomes will fall within the range of simulated results. Actual outcomes may be better than the simulated 95th percentile or worse than the simulated 5th percentile.

# Strategy

## Scenario analysis appendix

### Liability basis

- Where the model illustrates a scheme-specific funding basis (e.g. Technical Provisions), the funding basis is calculated in the same way across all the investment portfolios modelled. We therefore focus on the effect of investment strategies on asset values and hence surplus/deficits, without the distorting effect of differing discount rates. However, in cases where the discount rate allows for a risk premium, the magnitude of the risk premium may depend on the proportion of return-generating assets in the portfolio, and therefore in practice the funding basis may be different under different investment strategies.

### Contribution basis

- The model's projections may be based on either fixed or variable contributions:
- "Fixed contributions" means that the current schedule of deficit contributions is assumed to remain in place for the full projection period. The purpose of this is to illustrate pure investment risk, showing the effect of differing investment strategies without the distorting impact of different amounts of money being contributed. In practice, however, the long-term downside outcomes would be less likely to be reached, as poor intermediate outcomes would lead to a requirement for additional contributions after future valuations.
- "Variable contributions" means that the model simulates future actuarial valuations every three years, and calculates the future deficit contributions that might be required under the particular situations being projected. This illustrates the range of possible future contribution requirements.
- In addition to the deficit contributions, the model also calculates contributions required to fund future service accrual, if there are active members accruing additional pension entitlements. In this case a small amount of variability arises from the range of possible future inflation projections. Therefore the "fixed contribution" projections may still show minor differences in contributions between, for example, Median and Bad outcomes.

# Metrics

| Asset Class | Total GHG emissions (scope 1 & 2) | | Total GHG emissions (scope 3) | | Carbon footprint (scope 1 & 2) | | Carbon footprint (scope 3) | | Implied Temperature Rise | | Data quality % of scope 1 & 2 emissions intensity that are: | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Metric, $tCO_2e$ | Coverage | Metric, $tCO_2e$ | Coverage | Metric, $tCO_2e$/ £1m of EVIC | Coverage | Metric, $tCO_2e$/ £1m of EVIC | Coverage | Metric | Coverage | Verified | Reported | Estimated | Unavailable |
| **Private Debt - X** | 624 | 100% | 2,251 | 100% | 11 | 100% | 40 | 100% | - | - | 0% | 0% | 100% | 0% |
| **Multi-Asset Credit** | 2,465 | 32% | 27,144 | 26% | 62 | 32% | 686 | 26% | 2.9°C | 18% | 0% | 20% | 11% | 68% |
| **Private Debt - Y** | - | 0% | - | 0% | - | 0% | - | 0% | - | - | 0% | 0% | 0% | 100% |
| **Frontier Debt** | 27,824 | 85% | - | 0% | 907 | 85% | - | 0% | - | - | 85% | 0% | 0% | 15% |
| **European Loans** | 1,019 | 81% | 10,665 | 61% | 21 | 81% | 225 | 61% | - | - | 0% | 79% | 2% | 19% |
| **Private Debt - Z** | - | 0% | - | 0% | - | 0% | - | 0% | - | - | 0% | 0% | 0% | 100% |
| **High Yield Bonds** | 3,498 | 72% | 25,315 | 64% | 74 | 72% | 535 | 64% | 6.4°C | 38% | 0% | 49% | 22% | 28% |
| **Equities** | 3,705 | 100% | 29,910 | 100% | 75 | 100% | 606 | 100% | 2.3°C | 100% | 0% | 89% | 11% | 0% |
| **Global Credit** | 2,217 | 77% | 14,552 | 69% | 43 | 78% | 286 | 69% | 2.0°C | 78% | Unable to provide data quality breakdown* | | | 23% |
| **Asset-Backed Securities - X** | 2,479 | 99% | - | 0% | 33 | 99% | - | 0% | - | - | 0% | 0% | 99% | 1% |
| **Asset-Backed Securities - Y** | 4,786 | 99% | - | 0% | 25 | 99% | - | 0% | - | - | 0% | 0% | 99% | 1% |
| **Infrastructure Equity** | - | 0% | - | 0% | - | 0% | - | 0% | - | - | 0% | 0% | 0% | 100% |
| **Growth Funds*** | **48,617** | **77%** | **109,837** | **31%** | **82** | **77%** | **376** | **31%** | **3.3°C** | **13%** | **4%** | **17%** | **56%** | **23%** |

Source: Investment managers, investment adviser's calculations.

Notes: $tCO_2e$: Tonnes of carbon dioxide equivalent, where $CO_2e$ expresses the impact of each different greenhouse gas in terms of the amount of $CO_2$ 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 31 December 2024. *The total coverage numbers on this page are calculated relative to the Plan's total asset value, (excl the LDI funds).

# Metrics

The Trustee has reported LDI separately due to the large exposure to derivatives, requiring funded and unfunded emissions to be reported.

| LDI Portfolio metrics | Asset Allocation | Total GHG Emissions $tCO_2e$ | | | Carbon Footprint (Scope 1 & 2)* $tCO_2e$/ £1m of PPP adjusted GDP | Data quality |
|---|---|---|---|---|---|---|
| | | Scope 1 & 2 | Scope 3 | Total | | |
| Funded | - | 33,284 | 21,924 | 55,208 | - | - |
| Unfunded | | 52,613 | 34,657 | 87,270 | | |
| **Total (2024)** | **25%** | **85,897** | **56,581** | **142,478** | **252** | **100% estimated** |
| ***Total (2023)*** | ***35%*** | ***98,378*** | ***64,803*** | ***163,181*** | ***256*** | ***100% estimated*** |

Improvement since Dec 2023 | Broadly Unchanged | Deterioration since Dec 2023

Source: Investment managers, investment adviser's calculations.
Notes: $tCO_2e$: Tonnes of carbon dioxide equivalent, where $CO_2e$ expresses the impact of each different greenhouse gas in terms of the amount of $CO_2$ 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. Emissions are shown including Land Use, Land Use Change and Forestry ("LULUCF"). The Partnership for Carbon Accounting Financials (PCAF) specifies a method of calculating metrics, to promote consistency.* Scope 3 Carbon Footprint was unavailable. Please see Appendix for further caveats.

# Metrics

## Metrics data caveats (1/2)

| Asset Class | Caveats |
|---|---|
| **Private Debt - X** | • Data as at 31 December 2023.<br>• Absolute emissions for the fund has been ratioed from Fund level to show coverage for the Plan.<br>• Carbon footprint reported in tonnes of $CO_2e$ per £1m invested.<br>• Total emissions provided at the Fund level, scaled to Plan specific. |
| **Multi-Asset Credit** | • Data as at 31 December 2024.<br>• Carbon footprint reported in tonnes of $CO_2e$ per $1m invested and converted to GBP using the 31 December 2024 exchange rate: USD/GBP 0.798467. |
| **Private Debt - Y** | • Data has not been provided in sufficient detail, for us to provide meaningful analysis on the GHG and Carbon Footprint metrics. |
| **Frontier Debt** | • Data as at 31 December 2024.<br>• Carbon footprint reported in tonnes of $CO_2e$ per $1m invested and converted to GBP using the 31 December 2024 exchange rate: USD/GBP 0.798467.<br>• Total emissions provided at the Fund level, scaled to Plan specific.<br>• Total emissions are scaled for 100% coverage. |
| **European Loans** | • Data as at 30 September 2024.<br>• Carbon footprint metrics has been calculated by the sum of GHG Emissions for Public and Private investments, as a proportion of Public and Private investment value data available.<br>• The data quality metric for reported data has been calculated by the sum of total reported data available for Public and Private investments, as a proportion of Public and Private data available.<br>• The data quality metric for estimated data has been calculated by the sum of estimated data available for Public and Private investments, and as a proportion of the total value of Public and Private data available.<br>• Total emissions are scaled for 100% coverage. |
| **Private Debt - Z** | • Data was unavailable at the time of reporting and there is no lagged data available due to the fund being seeded in H1 2024. |

# Metrics

## Metrics data caveats (2/2)

| Manager | Caveats |
|---|---|
| **High Yield Bonds** | • Data as at 31 December 2024.<br>• Carbon footprint reported in tonnes of $CO_2e$ per $1m invested and converted to GBP using the 31 December 2024 exchange rate: USD/GBP 0.798467.<br>• Total emissions provided at the Fund level, scaled to Plan specific.<br>• Total emissions are scaled for 100% coverage. |
| **Equities** | • Data as at 31 December 2024.<br>• Carbon footprint reported in tonnes of $CO_2e$ per $1m invested and converted to GBP using the 31 December 2024 exchange rate: USD/GBP 0.798467.<br>• Total emissions are scaled for 100% coverage. |
| **LDI** | • Data as at 31 December 2024.<br>• LDI government bond data uses 2023 emissions.<br>• The Carbon Footprint and GHG metrics relating to Scopes 1, 2 and 3, and have been reported separately from the other managers, as Schroders use the latest PCAF Sovereign Debt methodology.<br>• Carbon footprint reported in tonnes of $CO_2e$ measured per £1m invested. |
| **Global Credit** | • Data as at 31 December 2024.<br>• Total emissions are scaled for 100% coverage.<br>• Carbon footprint reported in tonnes of $CO_2e$ per $1m invested and converted to GBP using the 31 December 2024 exchange rate: USD/GBP 0.798467. |
| **Asset-Backed Securities – X & Y** | • Data as at 31 December 2024.<br>• Carbon footprint reported in tonnes of $CO_2e$ per $1m invested and converted to GBP using the 31 December 2024 exchange rate: USD/GBP 0.798467.<br>• Total emissions provided at the Fund level, scaled to Plan specific.<br>• Total emissions are scaled for 100% coverage. |
| **Infrastructure Equity** | • Data was unavailable at the time of reporting and there is no lagged data available due to the fund being seeded in H1 2024. |

# Glossary

| Metric | Description | |
|---|---|---|
| **Absolute Emissions Metric:**<br><br>**Total GHG emissions (scope 1 & 2)** | 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 | $\sum_{n}^{i}\left(\frac{\text{Current value of investment}_{i}}{\text{Investee company enterprise value}_{i}}\right)$ X investee company's scope 1 and 2 emissions $_{i}$ |
| **Emissions Intensity Metric:**<br><br>**Carbon footprint (scope 1 & 2)** | 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 | $\frac{\sum_{n}^{i}\left(\frac{\text{Current value of investment}_{i}}{\text{Investee company enterprise value}_{i}} \text{ X investee company's scope 1 and 2 emissions}_{i}\right)}{\text{Current value of all investments (£ millions)}}$ |
| **Implied temperature alignment** | 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 |

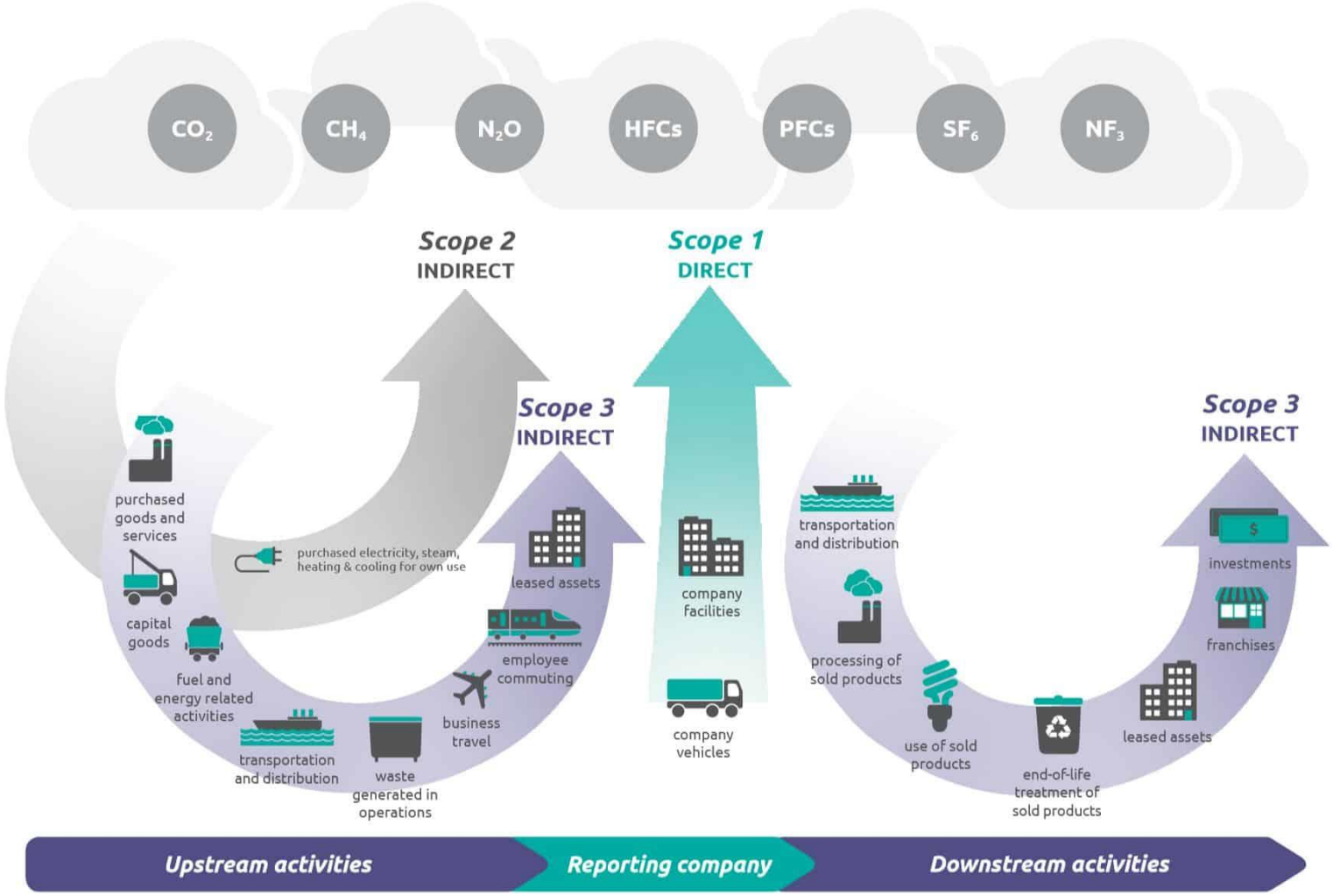



All metrics were provided by the Investment Managers, who are closest to the underlying assets, and consolidated by the Plan's investment adviser.
Source: DWP - Governance and reporting of climate change risk: guidance for trustees of occupational schemes

# 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

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