

Schlumberger UK Pension Scheme

TCFD Report

1 January 2022 – 31 December 2022



Overview

Trustee statement on climate risks and opportunities

Chair statement on behalf of the Trustee

We recognise climate considerations as a material and dynamic source of risks and opportunities. Climate change is expected to affect our members, financial markets and society at unprecedented levels and we recognise managing the associated risks and opportunities form part of our fiduciary duty to members. We have taken steps to ensure climate considerations are fully integrated across our processes and procedures and in our decision making.

The Task Force on Climate-related Financial Disclosures (“TCFD”) is a voluntary international institution that has developed a framework to improve and increase reporting of climate-related financial information. This report sets out our response across the four TCFD pillars of Governance, Strategy, Risk Management, and Metrics and Targets. These pillars collectively underpin our Scheme’s response to a changing climate future.

We have formed policies and procedures in place to provide a framework to manage these risks and capture opportunities over time as the Scheme, both Defined Benefit and Defined Contributions sections, works to meet its objectives. We have analysed all the relevant asset classes to the Scheme, the current DB investment strategy, expected future DB investment strategy, and the popular DC arrangement (lifestyles/defaults).

Defined Benefit Section

The Trustee has taken significant steps in recent years to de-risk the Scheme’s investment strategy, coupled with a strong funding position and the covenant, the Scheme is in a strong position financially. Therefore, the impact on the Scheme’s financial position from an investment perspective over the short to medium-term is expected to be relatively modest.

Due to the nature of the sponsor’s business, climate change and related impacts on the energy and technology market alongside new regulations are expected to mean significant change for the business. This presents material challenges and opportunities for the Scheme’s sponsor. The impact of climate risks and opportunities on the sponsor covenant and their interaction with the Scheme’s long term funding strategy are being regularly monitored by the Scheme’s covenant adviser.

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

Defined Contribution Section

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

In summary – the Trustee is committed to addressing the financial risks and opportunities of climate change to ensure the best outcomes for Scheme members.

Climate

Why is climate change important for our members?

Planning for a different future

We know the future will look very different as a result of climate change. This is because climate change presents a systemic risk for the planet and therefore the global economy and financial system. Climate change therefore needs to be at the forefront of how we govern the Scheme.

This climate-altered future presents both risks and opportunities for the Scheme. Low carbon transition risks will result from decarbonisation action, whilst physical risks will result from decarbonisation inaction. This means that whatever comes next, we will face climate-related risks which we need to appropriately manage.

Meanwhile, the world continues to grapple with rising emissions. We recognise global changes are required to stabilise and reduce global emissions in order to keep global average temperature rises within safe limits. Surpassing these safe limits could mean unprecedented impacts on our global society and economy. This will have an impact on members, financial markets, and the sponsor.

Global efforts to reduce carbon emissions and the potential wider impact of climate change will also bring about many opportunities. From renewables and low carbon transport, to water-resistant crops and flooding infrastructure, these are just some of the many opportunities that we should be increasingly aware of when making investment decisions. These opportunities alongside sound risk management, such as assessing climate risks, are essential to safeguarding long-term investment returns.

Climate science in a nutshell

Greenhouse gas ("GHG") emissions arise from the burning of fossil fuels for example transport or power purposes. Emissions released into the atmosphere cause warming. As global average temperatures rise (vs pre-industrial times), the entire fabric of the climate system changes.

State of climate change

Governments agreed the Paris Agreement to limit global average temperature rises to well below 2°C, with ambitions towards 1.5°C. Following the COP 26 UN Climate Change Conference held in Glasgow, October 2021, at which governments and stakeholders gathered to further action on climate change, it is evident that more action is required in order to achieve the Paris Agreement goals (as with COP 27 in 2022).

The low carbon transition

To decarbonise the global economy, policies, technologies and market preferences are expected to shift in favour of low carbon solutions. This transition can either be orderly (a steady-state of decarbonisation efforts from today) or disorderly (delayed decarbonisation action resulting in delay and late efforts to meet the Paris Agreement goals).

Physical risks from climate change

Physical risks increase with rising emissions and global average temperatures. These include ongoing risks (such as shifting weather patterns and associated changes in resource availability) as well as more sudden risks (including natural disasters such as wildfires or flooding).

SUKPS approach



Our first TCFD report

This is the Scheme's first TCFD report.

This year, we have developed a climate governance statement, climate strategy, conducted climate scenario analysis and analysed metrics, to better understand the climate-related risks the Scheme faces. You can find further details about these activities in this report.

Our framework for climate risk management will continue to evolve. We will produce annual reporting to map our progress moving forward.

SUKPS Environmental, Social and Governance ('ESG') approach

The Trustee has taken significant steps to build a framework for assessing ESG risks and opportunities over the last few years. In 2020 an ESG Sub Committee was formed in order to assist the Trustee in navigating this area.

The ESG Sub Committee has assessed the Scheme's investment managers from an ESG perspective on an annual basis since 2020, and communicates actions to the investment managers where areas for improvement are identified. In the most recent annual assessment, climate risk management was specifically assessed.

The Trustee assesses investment managers from an ESG perspective before making any new appointments. The Trustee has also taken significant steps to increase climate risk resilience in the Defined Contribution section through transitioning the equity portfolio towards funds with a sustainable mandate. Further details are included in this report.

The Scheme is a TCFD supporter.



Exploring portfolio opportunities

Climate change is not just a risk but also presents opportunities. We have been exploring further opportunities that might be relevant for the Scheme. For example in the equity allocation within the DC portfolio, we have committed additional capital to invest in real-world solutions such as funds investing in companies targeting positive change through greater climate and ESG alignment.

TCFD overview

Governance



Governance around climate-related risks and opportunities

Trustee – We, the Trustee, hold ultimate responsibility for managing the Scheme. This includes setting the Scheme’s ESG strategy, for which climate change plays a vital role. An ESG beliefs statement and policy was established in 2020 including climate considerations. To ensure the risks and opportunities presented by climate change are sufficiently identified, assessed and managed, the following climate governance framework has been implemented.

Sub Committee C – reviews the climate-related risks and opportunities for the Scheme, and how risks and opportunities play out over multiple time horizons, across the short, medium and long term. This includes defining what these time horizons are for both the Scheme’s DB and DC sections.

Schlumberger Common Investment Fund Limited (“SCIFL”) - Reviews and implements any ESG-related recommendations on investment manager agreements. Consider the investment managers’ track record on climate change voting and engagement with the management of companies in which they are invested, and report on this via the annual Implementation Statement.

ESG Sub Committee – Works with the Trustee to review the strategic direction regarding climate change for the DB and DC sections, and agree a climate change strategy that reflects Trustee beliefs. Further details are included later in the report.

Other advisers - The Scheme’s legal adviser, covenant adviser, actuary, and investment adviser provide advice to the Trustee on climate-related risks and opportunities.

Investment managers - The Trustee has delegated responsibility to the Scheme’s investment managers for managing the assets in line with the agreed mandates.

Strategy



Actual and potential impacts of climate risks and opportunities

The Trustee has identified the key time horizons relevant to the DB section of the Scheme (short – 3 years, medium – 5 years and long – 16 years) and DC section (short – 3 years, medium – 7-10 years and long – 30-40 years). These have been determined by a blended view of the climate outlook, milestones for the investment strategy, and the Scheme’s membership demographics.

The Trustee has evaluated the potential risks and opportunities over these timeframes, including analysis of the Scheme’s position under three climate scenarios, two shown below*. This follows a Red, Amber, Green rating to illustrate the likely magnitude of the potential impacts from a climate transition or climate inaction on the Scheme.

A more detailed assessment analysed across different time horizons is included later in the report.

	DB Section		DC Section	
Scenario	Assets	Liabilities	Covenant	Assets
Net Zero 2050	Amber			
Current Policies	Amber		Red	

* The directional impacts under a divergent net zero scenario are likely to be similar to an orderly scenario net zero, albeit the magnitude and timing is expected to be delayed and uncertain. These are long term assessments, where the risks of an orderly net zero 2050 transition are more transition risks, and current policies (hot house) risks are more physical. This is one high-level assessment, further details are later in this report.

TCFD overview

Risk Management



How the Scheme identifies, assess, and manages climate-related risks

The Trustee has a framework to ensure risks are managed holistically. This includes analysis of climate at the Scheme level and ensuring the Scheme's investment managers are carrying out their duty as fiduciary managers of the Scheme's assets.

Scheme level

The Trustee and ESG Sub Committee regularly review the risk register and recently refined these to explicitly include climate risk across:

- Covenant: sponsor
- Investment strategy
- Investment: asset and investment manager allocations
- Funding: funding level

In addition to the risk register, the Trustee and ESG Sub Committee receive regular advice from their advisers on climate considerations.

Underlying investment portfolios

SCIFL regularly reviews the Scheme's principal investment portfolios, and the Investment Consultant provides an ESG review, including climate, of all portfolios annually.

Monitoring framework

The Scheme Risk Register alongside DB and DC risk dashboards are the main reference point for the Trustee's monitoring of climate risks.

Metrics & Targets



Disclosure of key metrics and targets

The Trustee, has gathered, assessed and presented the climate metrics below. Due to the nature of the DB section's investment strategy, with a large allocation to private markets, coverage of climate metrics is currently limited. Working with the Scheme's investment managers to improve the availability of such data is a key focus for the Trustee.

Metrics:

- **Total greenhouse gas emissions** (tCO₂e: Tonnes of carbon dioxide equivalent, where CO₂e expresses the impact of each different greenhouse gas in terms of the amount of CO₂ that would create the same degree of warming).
- **Carbon footprint** (tCO₂e/\$m EVIC. EVIC is Enterprise value including cash).
- **Data quality** (% of scope emissions that are reported).
- **Implied temperature rise** (The temperature pathway the mandate aligns to, expressed as a projected increase in global average temperatures by the end of the century. A Paris-aligned strategy should have an ITR of 1.5°C).

DB section target

Achieve 66% coverage (at least 66% estimated, reported or verified) by 2025 across the DB section of the Scheme, this will enable the Trustee to make meaningful carbon-related targets in the future (c.30% as at 31 March 2022).

DC section target

Achieve 66% coverage (at least 66% estimated, reported or verified) by 2023 across the DC section of the Scheme, this will enable the Trustee to make meaningful carbon-related targets in the future. The DC Section is invested primarily in public market investments and should have meaningful coverage next year (currently c.30%).

What's next?



Building on the opportunities

Since 2020 the Trustee has been reviewing opportunities to improve the climate risk resilience of the equity portfolio within the DC section of the Scheme. The Trustee appointed three active funds with a specific sustainable mandate which feature in both the default portfolios and as self-select options. The Trustee is currently in the process of switching all of the Scheme's passive equities to sustainable passive equities, which is currently planned to be over 3 years.

The Trustee will continue to look for opportunities to improve the climate resilience of both the DB and DC investment strategies.



Improving data

We are engaging with our investment managers to collaborate on improving the quality and availability of climate data. Current data coverage is not as good as it could be, and to ensure sound investment decision making, we are working with our managers to understand what climate metrics can be measured and monitored in the future. We will endeavour to broaden out our monitoring framework to cover a spectrum of considerations across climate issues.



Understanding the position of our Sponsor

Our sponsor is in an industry that will play a vital role in the transition to a low carbon economy. We are working with our sponsor and advisers to better understand the future direction of the business and the potential opportunities and risks this may bring and we will continue to monitor the possible impact of these on covenant and how this could impact the Scheme's strategy.

TCFD recommendations - governance

Governance

The Trustee Board's oversight of climate-related risks and opportunities

Trustee ESG beliefs:

Risk Management: The Trustee believes that integrating ESG factors, including climate change, in their investment strategy represents an opportunity to increase the effectiveness of the overall risk management of the Scheme.

The Trustee maintains an ESG Beliefs document, available on request, that aims to ensure oversight of climate-related risks and opportunities. The governance structure for ESG and climate considerations is summarised on the right. The Trustee believes climate considerations form part of a holistic integrated risk management framework, and have devoted significant time and resource in recent years to ensure the framework is adequate for proper oversight of climate-related risks and opportunities. The Trustee has committed significant resource to reviewing climate related matters including time at meetings, setting up an ESG sub committee, reviewing managers and taking input from a range of advisers. The Trustee believes this is commensurate with climate being a key source of risk and opportunities for the Scheme.

Oversight responsibilities of the Trustee

Ultimate responsibility for climate considerations lies with the Trustee. The Trustee Board meets regularly (at least quarterly), with the ESG Sub-Committee regularly feeding in on progress and direction on climate strategy.

Responsibility for the identification, assessment, and management of ESG-related risks is delegated to the ESG Sub Committee and SCIFL. The ESG Sub Committee met regularly during 2022 in order to work through the four TCFD pillars and develop the Scheme's climate strategy. The scheme actuary, investment consultant, legal counsel and covenant adviser all support the ESG Sub Committee. The Trustee will consider the quality of advice the advisers are able to provide from a climate perspective when reviewing their appointments. The minutes of each Trustee meeting documents the decisions and recommendations provided at each Board meeting.

Climate-related training

The Trustee ensures it remains informed on the latest topics, and receives regular training from the investment consultant and investment managers. Training is carried out by the Trustee Directors both in meetings and as part of their ongoing research knowledge building process, this includes climate related articles and webinars run by assets managers, consultants and regulators. The Trustee will request further training from the investment consultant if required and as climate related matters develop. The ESG sub committee supports the Trustee through its focus and knowledge of climate related matters.

Governance Structure for ESG considerations		
Trustee Board and Sub Committee C		
Governance		
Approve Statement of Investment Principles, ESG policy (including the ESG beliefs document) and responsibilities.	Ultimate responsibility to ensure the identification, assessment and management of climate-related risks and opportunities.	
ESG Sub Committee		
Strategy, Risk Management & Monitoring		
Assess climate impact on assets, covenant, funding, and members.	Monitor climate metrics and progress against targets.	Consider strategy implications and scenario analysis.
SCIFL		
Implementation		
Fund manager selection and monitoring.	Fund manager engagement and feedback.	

Governance

Management's role in assessing and managing climate-related risks and opportunities

Trustee and ESG Sub Committee

Over 2022, the Trustee, through the ESG Sub Committee established a policy to ensure its advisers had their responsibilities clearly defined and documented. The advisers delivered governance-related advice through formal meetings. This provided opportunity for the Trustee to consider, discuss, and where it was appropriate, challenge the information provided.

SCIFL and external advisers

The day-to-day oversight of the underlying investment managers and the extent to which they manage climate risks and opportunities is undertaken by SCIFL with support from the Scheme's investment consultant. The investment consultant and the SCIFL in-house asset manager provide extensive monitoring reports to the SCIFL board on a quarterly basis and attend the SCIFL meetings. The SCIFL board typically meets at least every 2 months or more frequently, the ESG sub committee meets at least quarterly (typically all ESG sub committee meetings will consider climate matters).

The scheme actuary, legal adviser and covenant adviser all support the Trustee. The Trustee reviews its investment consultant against strategic consultant objectives with specific reference to helping the Trustee implement its ESG strategy. The Trustee reviews SCIFL and will ask the SCIFL board to report to the wider Trustee board at quarterly meetings. The SCIFL board will escalate any concerns around investment managers to the Trustee, and the Trustee will review SCIFL in detail if there is any underperformance.

Investment managers

Given assets are managed by external investment managers, the ongoing assessment and management of climate-related risks and opportunities is largely delegated to them. This is through a combination of segregated portfolios and pooled portfolios. Where the Trustee invests in pooled vehicles, thorough due diligence will be carried out prior to investment, with explicit consideration given to how managers approach climate risk. When investing via segregated portfolios, the Trustee has greater ability to influence the management of ESG and climate risks. This can be reflected in the investment management agreements.

The investment consultant reviews all portfolios with respect to ESG and climate integration annually. The Trustee recognises that one size may not fit all and that different approaches to climate considerations may be appropriate, particularly across different classes and investment styles.

Roles and responsibilities of Advisers (as set out in the Climate Governance Statement)

Investment Consultant

- Assisting the Trustee to fulfil its legal and regulatory obligations in relation to climate change.
- Provide ongoing support to the Trustee in terms of investment strategy and climate change strategy.
- Propose investment strategies and managers, which are aligned to the Trustee climate change beliefs.

Scheme Actuary

- Providing training and other updates on relevant climate-related actuarial matters.
- Advising how climate-related risks and opportunities might affect the funding position and the implications for the funding strategy, long-term objective and journey plan.
- Working with the Trustee's other advisers to assist in the incorporating climate change in its governance arrangements, risk register, and IRM framework.

Legal Adviser

- Assist in relation to the Trustee's legal obligations arising from the disclosure requirements in relation to climate change.
- Assist in the documentation of the arrangements with the Scheme's third parties on the legal aspects of ESG and climate-related matters.

Covenant Adviser

- Providing advice on how climate-related risks and/or opportunities could affect the sponsor's covenant.
- Assist the Trustee in incorporating climate change in its governance arrangements, risk register, IRM framework and communication with stakeholders.

TCFD recommendations – strategy

Strategy

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

The ESG Sub Committee has assessed the potential impacts on the Scheme's assets and liabilities under three different climate scenarios defined by the **Network for Greening the Financial System** ("NGFS"), interpreted and modelled by Moody's Analytics, and explicitly referenced in the Department for Work and Pensions TCFD guidance. The ESG Sub Committee, in conjunction with its Investment Consultant, chose these scenarios to provide a balanced set of hypothetical constructs with which to analyse the potential risks and opportunities across the Scheme's portfolios. Forward-looking analysis always involves uncertainty, and these scenarios help to examine different possible outcomes for example in terms of emissions, global average temperatures, and associated transition and physical risks,.

Net Zero 2050

- Paris-aligned scenario – temperatures kept to a 1.5°C rise this century.
- CO2 emissions reach net zero in 2050 globally, but only some regions achieve global GHG net zero by 2050.
- Immediate global action applied uniformly to decarbonise hence relatively high transition costs incurred, particularly in the near term.
- Physical damages are minimised.

Divergent Net Zero

- Paris-aligned scenario – temperatures kept to a 1.5°C rise this century.
- Divergence in decarbonisation policies across sectors results in higher transition costs, e.g., the transport and building sectors instil more stringent climate policies than the energy and industrial sectors.
- Physical damages are minimised.

Current Policies

- The world largely fails to meet the ambition set out in the Paris Agreement, resulting in 3.8°C of warming this century.
- Current global climate policies are implemented, but no further ramping up of climate policy ambition over time, resulting in lower transition costs.
- Higher physical risks arise as a result of rising global temperatures, with shifts in weather patterns and an increased incidence of natural disasters.

Governments are likely to pursue a range of policies, such as carbon taxes or carbon allowances, as temperatures increase under each scenario. These measures will differ across regions and when such measures are adopted. The NGFS scenarios reflect this by varying emissions price trajectories, this also includes the impact of new technologies and the extent to which they are deployed.

Limitations:

The Trustee accepts there are limitations involved within investment strategy modelling given the potential uncertainty and assumptions underlying the modelling. The Trustee therefore uses the scenario analysis for comparative purposes rather than analysing the absolute magnitude of the results. Further detail can be found in the appendix.

Strategy

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

Timeframes and description of risks and opportunities

There are a number of material climate-related risks and opportunities that the Trustee is aware of. The ESG Sub Committee has identified the following timeframes, which have been determined by a blended view of the climate outlook, membership demographics, funding position, objectives, and the ability to pay benefits. In particular, in the shorter term, we expect transition risks to be greatest; however, in the longer-term, physical risks will ramp up and become more important. The Trustee will review the chosen timeframes on a regular basis and assess the extent to which it believes the Scheme will have sufficient assets to meet expected future payments over its journey.

Opportunities

In addition to the risks outlined below, the Trustees also considers climate opportunities such as investing in assets that could outperform due the energy transition, such as funds that invest in companies finding climate solutions or companies that investors may favour as they have made positive changes to align with the energy transition. The Trustee has already begun to do this within the DC section through making available funds with a more sustainable focus.

DB Section risks

Timeframe	Investment Horizon	Climate Horizon	Risks to Asset Strategy	Risks to Liabilities	Risks to Sponsor
Short-term (3 years)	Actuarial valuation cycle	Companies setting targets. Improvement in data quality. Government responses to COP.	Transitional risks such as carbon pricing and regulation	Changes to yields (as per assets) and longevity expectations due to rising physical risks or changing provision and quality of healthcare	The ability of the Sponsor to adapt to a changing energy industry
Medium-term (5 years)	Illiquids expected to return the majority of cash. Sale of any private equity mandates agreed.	Companies approaching interim 2030 targets. Alignment with SDGs			
Long-term (16 Years)	Date the last current active member is expected to retire	Investors' and organisations' net zero targets. Physical risks may become dominant	Physical risks increase such as extreme weather events and sea level rises		

DC Section risks

Timeframe	Investment Horizon	Climate Horizon	Risks to Asset Strategy
Short-term (3 years)	Members approaching retirement age	Companies setting targets. Improvement in data quality. Government responses to COP26	Transitional risks such as carbon pricing and regulation
Medium-term (5-7 years)	Young members invested in the growth phase. Older members de-risking into the retirement phase	Companies approaching interim 2030 targets. Alignment with SDGs	
Long-term (30-40 Years)	Young members today approaching retirement	Investors' and organisations' net zero targets. Physical risks may become dominant	Physical risks such as extreme weather events and sea level rises

Strategy

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

Risks and Opportunities – summary

Scheme members will be invested over varying time horizons (depending on their time to, and in, retirement) and over this time, there will be long-term climate-related risks, particularly likely if net zero targets are not met. Climate-related risks can be broadly categorised into two groups that must be effectively managed for the benefit of members.

Risks

- **Physical** risks that arise directly from changing climate conditions. These can be acute, episodic risks such as tornadoes, flooding, typhoons and wildfires, or chronic, ongoing risks such as rising sea levels, scarcity of freshwater and supply chain disruption.
- **Transition** risks that arise from taking the necessary steps to transition to a low-carbon economy. These may arise from regulatory actions, technological developments, reputational damage, or market forces.

Opportunities

Opportunities will arise to support sustainable growth, development and investment across industries as part of a move towards net zero economies. For example, companies that proactively adapt to the above risks or develop solutions that work to address these risks are likely to outperform in the long-term relative to companies who are less able to adapt to these risks.

TCFD recommendations – DB strategy

DB strategy

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

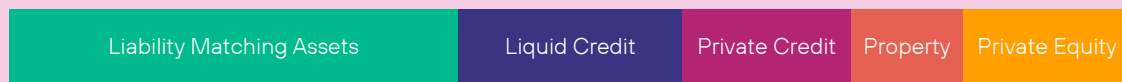
Investment strategy evolution

The Trustee has been in the process of de-risking the DB investment strategy in recent years following significant improvements in the funding level.

The Scheme has removed exposure to listed equities and is in the process of reducing allocations to riskier assets such as property and private equity. Other riskier assets such as private credit will naturally wind down over time. The direction of travel for the Scheme is expected to be towards more liquid credit and liability-matching assets.

In addition to being less risky from a traditional perspective, lower risk assets such as UK government bonds and high quality corporate credit are expected to be more resilient to climate risks. The Trustee's strategy is to continue to look for opportunities to de-risk both from a traditional investment perspective and a climate risk perspective. This will be done through the asset allocation but it is also expected that the investment managers will continue to develop their approach to reducing climate risks. The Trustee will monitor the investment managers developments in this area.

Investment strategy



*Liability matching assets are held as UK Government Bonds

The current investment strategy will evolve over time and be de-risked. A proportion of the private market assets including: private credit, property and private equity will naturally run off over the next c.5 years. In 5 years a higher proportion of the assets is expected to be invested in liability matching assets and public credit.

These expected actions are consistent with de-risking from a climate perspective. The Trustee will continue to consider any further climate opportunities or routes to managing climate risk as they develop.

Liabilities

As well as changes to the value of investments and other economic variables, the Scheme's Actuary identified changes in how long members are expected to live and draw their pensions from the Scheme ("longevity risk") as a potentially material source of risk to the funding level of the Scheme.

The Actuary monitors the potential impacts of longevity on a regular basis and provided an assessment of longevity risk under different climate scenarios as part of the Scheme's climate strategy review. The Actuary will refresh this analysis each time the Trustee undertakes climate scenario analysis. The Trustee considers and will continue to consider opportunities to manage longevity risk if it is appropriate in terms of pricing and the broader funding and investment strategy.

The Trustee has implemented a high degree of liability hedging, through liability-matching assets which move in line with the liabilities given changes in interest rates and inflation.

Transition

The Scheme Actuary highlights that in the UK, it is considered unlikely that the direct effects of climate change will have a significant impact on life expectancies. However, the disruption and impact of transitional risks on economic activity could have a more significant effect.

Healthier lifestyles and slightly milder winters could outstrip the impact of any additional deaths from other aspects of climate change, leading to members generally living longer than expected. However, significant warming could lead to economic pressures on the healthcare system and additional deaths from other adverse effects of climate change lead to slower improvements in life expectancies.

More details on the individual scenarios considered are included later in the report.

DB strategy

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

Sponsor

The Scheme’s covenant adviser notes that by “reducing covenant reliance on the sponsor through continued de-risking, the Scheme will materially reduce the potential of material climate risks detrimentally impacting the covenant”.

The sponsor assesses climate change risks and opportunities over different scenarios and timeframes. The covenant adviser has reviewed the available reports and presented to the ESG Sub Committee a summary of this analysis. In summary, they consider the sponsor risk to be relatively low because (a) the Scheme has a surplus on a solvency basis and the investment and demographic risks are being reduced by the Trustee’s de-risking plan, so the funding requirement from the sponsor are reduced and (b) the risks to SLB (The Company) are judged not to be so severe that it would be unable to meet its funding obligations. Sponsor risk may be higher in some scenarios, as noted on page 21 and page 6, including very long-term scenarios.

This is because whilst the impact of both physical and climate transition risks on SLB could potentially be material, they are unlikely to be sufficiently detrimental to the financials, to such an extent that the ability to support the Scheme over the short, medium term and potentially long term is impaired. The covenant adviser also noted the additional protection the Scheme has in place through a contingent asset fund should the Scheme’s funding position worsen. The below extract outlines the key risks and opportunities from the Group’s CDP disclosures.” Note slightly different timeframes have been used to assess short, medium and long-term risks for the sponsor.

	Short (1-3 years)	Medium (3-10 years)	Long (10 years+)
Transitional Risks		Emerging Regulation e.g. new regulations put in place to reduce greenhouse gas emissions from fossil fuels resulting in need to accelerate replacement of vehicle fleet. Potential \$19m impact.	
Physical Risks	Acute physical e.g. extreme weather events. May result in increased operating costs or decreases in revenue through disruptions and damage and decrease productivity from the workforce. Potential \$6m impact.		Chronic physical e.g. rising sea levels. SLB have identified 14 current facilities as having some level of exposure, one with a high level of exposure. Potential \$115m impact Acute physical e.g. extreme weather events. May result in increased operating costs or decreases in revenue through disruptions and damage and decrease productivity from the workforce. Potential \$720m impact represents 20% to 30% reduction in productivity.
Opportunities	Energy source e.g. conversion to renewables. While there are potential costs associated with conversion, once converted, operating costs is expected to decrease.	Products and Services e.g. Expansion of low emissions technology portfolio and development of additional products and services focused on decreasing environmental footprint.	Products and Services e.g. Schlumberger New Energy portfolio of businesses and technology ventures, which gives access to low carbon and carbon-neutral markets associated with the energy transition.

DB strategy

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

Climate scenario analysis: total portfolio - potential impacts on assets and funding level relative to baseline scenario

Under most climate scenarios (and all long-term scenarios), the Scheme's assets are expected to perform worse compared to the baseline – where there are no expected physical or transitional costs from climate change. The Scheme has a funding level surplus at the time of analysis, which mitigates this risk somewhat, and there are other forms of protection including ongoing de-risking of the strategy and the contingent asset funding arrangement.

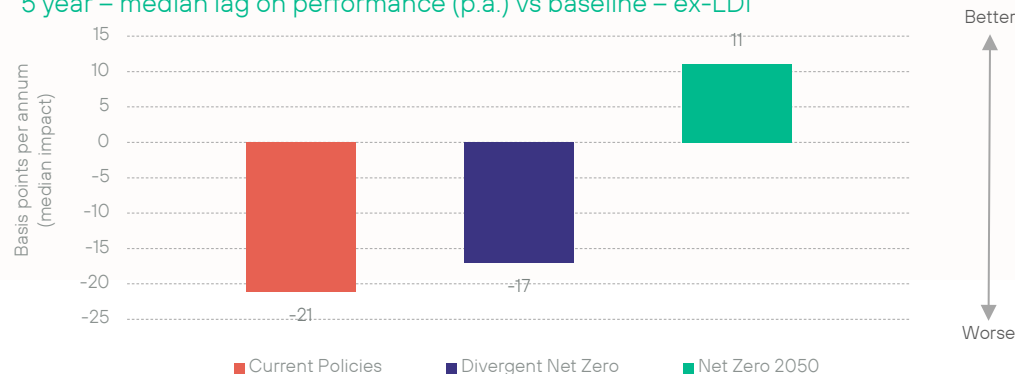
Over the short to medium term, the expected impact on the Scheme's funding position is expected to be relatively modest relative to wider investment risks. Due to the complexity of the model, the Scheme's asset allocation was assumed to remain static; however, the Trustee analysed asset class specific impacts overleaf to understand how the portfolio's climate risk might evolve, and looked at both the current portfolio and the expected future portfolio (below).

The ESG Sub Committee recognises this modelling is based on assumptions and more detail is provided in the appendix. **Note the below are possible lags on returns in different possible climate scenarios, not expected returns at an absolute level or actual returns.** Medium-term and long-term risks are illustrated as they are considered more material than shorter-term risks.

Expected returns are more positive in the Net Zero 2050 scenario as markets price in the better management of risks. Over the long-term however there is a cost of the transition that will be required which comes through in a lag in return.

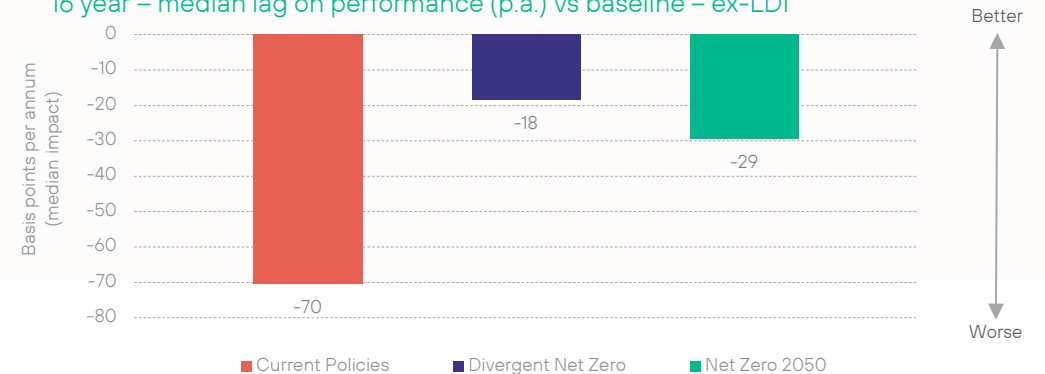
Medium-term - Current portfolio

5 year – median lag on performance (p.a.) vs baseline – ex-LDI



Long-term - possible long-term portfolio (Gilts + high quality liquid credit)

16 year – median lag on performance (p.a.) vs baseline – ex-LDI



DB strategy

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

Climate scenario analysis: asset classes

The ESG Sub Committee considers the isolated impact on different assets to understand which allocations might contribute to the Scheme's climate risk and how this might evolve over time. This analysis covered all of the asset classes in which the Scheme invests (along with asset classes that the Scheme has recently divested from).

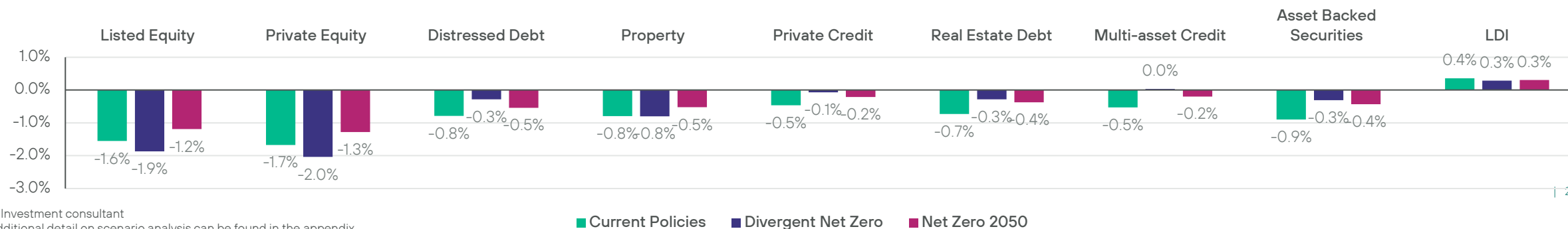
On a relative basis, equities are expected to experience first-wave impacts from climate change. In the near term this will be dominated by the risk of a transition to a low carbon economy creating a drag on markets. The Scheme divested from listed equities in 2021, materially de-risking the asset allocation.

In order to prioritise the management of climate-related risks across the portfolio, it is useful to understand those asset classes that will be most impacted. From the Scheme's perspective, private equity faces the highest risk on an absolute basis. The allocation to private equity is expected to reduce over time as the Scheme further de-risks.

The Trustee has adopted a hedging strategy that targets a high degree of hedging of interest and inflation rate exposure and therefore the Scheme's liability driven investment (LDI) portfolio is expected to mirror any potential changes in the Scheme's liabilities from these variables. **Note the below are possible lags on returns in different possible climate scenarios, not expected returns at an absolute level or actual returns.**

The Trustee will review how climate developments evolve and may alter the strategy if it appears one of the strategies is becoming the more likely to materialise. This may include tilting the portfolio to asset classes expected to outperform in these scenarios. The Trustee has already made significant progress in moving the asset allocation more towards the asset classes towards the right of the chart which are less exposed to climate risks. This will continue to be reviewed.

16 years - annualised return drag caused by climate impacts under different scenarios



DB strategy

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

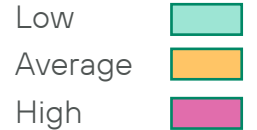
Materiality of climate-related risks and opportunities

The ESG Sub Committee, in conjunction with its Advisers, has used a Red, Amber, Green rating scale to illustrate the likely magnitude of the potential impacts of climate-related risks and opportunities across the different time horizons agreed.

Assets – The Scheme's assets are diversified, will be de-risked over time, and are expected to react differently to various climate scenarios.

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

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



		IL Gilts (LDI)	Public Credit	Private Credit	Private Equity	Real Assets	Liabilities	Sponsor
Net Zero 2050 and Divergent Net Zero*	Short-term (3)	Low	Average	Average	High	Average	Average	Low
	Medium-term (5)	Low	Average	Average	High	Average		Low
	Long-term (16)	Low	Average	Average	High	Average		Average
Current Policies Scenario	Short-term (3)	Low	Average	Average	Low	Low	Average	Low
	Medium-term (5)	Low	Average	Average	Average	Average		Low
	Long-term (16)	Low	Average	High	High	High		High
Expected allocation change		↑	↑	↓	↓	↓		
Opportunities		✓	✓	✗	✗	✗		

Expected allocation change reflects the expected change in asset mix.

* The directional impacts under a divergent net zero scenario are likely to be similar to an orderly net zero scenario, albeit the magnitude and timing is expected to be delayed and uncertain.

TCFD recommendations – DC strategy

DC strategy

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

Investment strategy

The Trustee has been in the process of reviewing the investments of the DC Section and their resilience to climate risks.

Equity – ESG and climate enhancements

Equities make up a significant amount of the investments of members with longer investment horizons (generally younger members). Equities are an asset class likely to be at greater risk from a climate perspective, versus investment grade bonds for example, and therefore the Trustee has put particular emphasis on reviewing the equity allocation of the DC section. It is worth noting however that despite the expected impact of climate risks, equities on an absolute basis are still expected to be a higher returning asset class.

The Trustee is in the process of transferring the Scheme's passive equity within default and lifestyle portfolios to more sustainable equities. This three-year process will move the assets to a fund with an acute focus on climate risks. This will provide greater comfort with the allocation to equities and its resilience to different possible climate scenarios.

Wider DC portfolio

The Trustee's analysis shows that despite returns in the various climate scenarios for all asset classes being lower than the base case scenario, growth assets such as equities are still expected to provide higher returns than lower-risk assets such as bonds and cash in the long-term on an absolute basis. Therefore the Trustee remains comfortable with the overall shape of default and lifestyle portfolios.

The Trustee notes that assets typically used by members with shorter time horizons, including high quality bonds and cash, are expected to be more resilient to climate risks, which is positive given the lower volatility these investors require.

Strategy

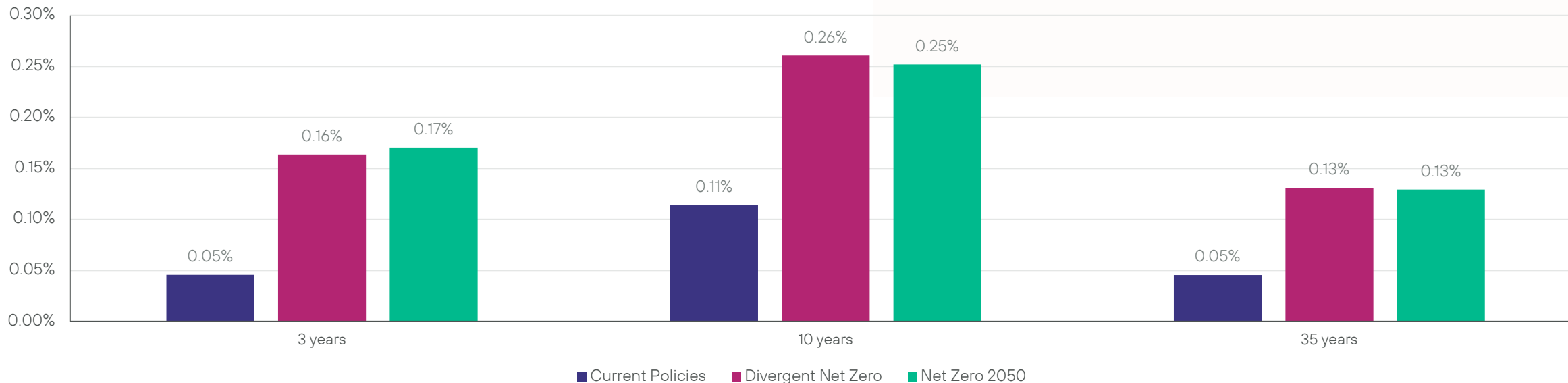
The resilience of the Scheme's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

Climate scenario analysis: sustainable equities

The Trustee's move to a more sustainable equity portfolio is expected to add value to members should any of the three climate scenarios modelled materialise. The Trustee believes this is a positive step for members, particularly as the portfolio retains the positive characteristics of the passive equity portfolio such as a high degree of diversification and relatively low cost to members. The premium from sustainable equities is expected to be particularly beneficial in the medium term (e.g. 10 years) where transition risks are expected to be more prominent. **Note the below are possible premiums on returns in different possible climate scenarios, not expected returns at an absolute level or actual returns.**

The premium below is based on the additional return expected over passive equities without a specific sustainable mandate. This does not mean the scenarios are expected to lead to better returns versus if there were no climate impacts at all, rather it means the lag on returns is lower for sustainable equities versus regular passive equities.

Premium (p.a.) on sustainable equities in different scenarios



Strategy

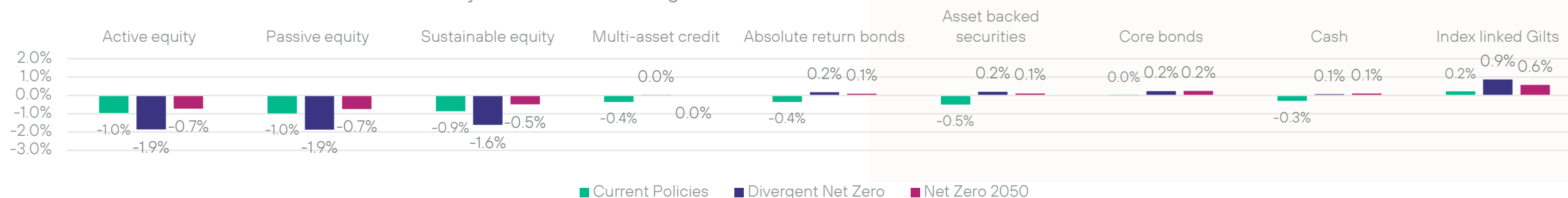
The resilience of the Scheme's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

Climate scenario analysis: asset classes

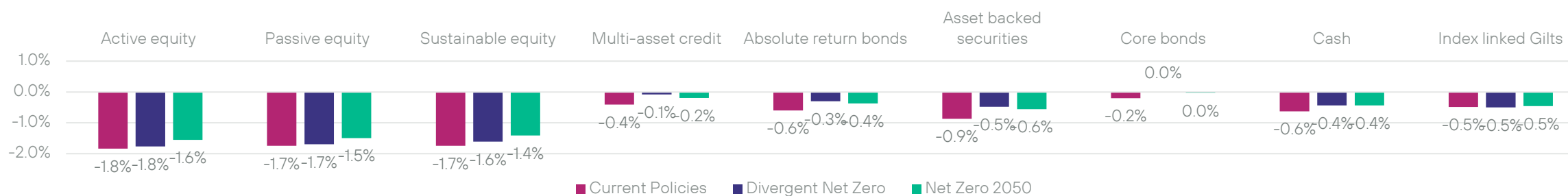
Members with longer investment horizons are likely to invest more in higher returning assets such as equities. Whilst these assets appear to be more exposed to climate risks (shown by a greater climate driven lag on performance below), these assets are still expected to deliver a higher absolute return in the long term.

The assets to the right of the charts, including various corporate bonds and other corporate credit, government bonds, and cash are more resilient to climate risks. **Note the below are possible lags on returns in different possible climate scenarios, not expected returns at an absolute level or actual returns.**

10 years – annualised lag on returns due to different climate scenarios






35 years – annualised lag on returns due to different climate scenarios



DC strategy

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

		Public Equity	Sustainable Public Equity	Public Credit	IL Gilts	Cash
Net Zero 2050 and Divergent Net Zero*	Short-term (3)	High	Average	Low	Low	Low
	Medium-term (5-7)	High	Average	Average	Low	Low
	Long-term (30-40)	High	Average	Average	Low	Low
Current Policies Scenario	Short-term (3)	Low	Low	Low	Low	Low
	Medium-term (5-7)	Average	Average	Average	Low	Low
	Long-term (30-40)	High	Average	Average	Low	Low
Expected allocation change	↓	↑	↔	↔	↔	
Opportunities to consider	-	✓	✓	✓	-	

Low	
Average	
High	

Materiality of climate-related risks and opportunities

The ESG Sub Committee, in conjunction with its Advisers, has used a Red, Amber, Green rating scale to illustrate the likely magnitude of the potential impacts of climate-related risks and opportunities across the different time horizons agreed.

Assets – The Scheme's assets are diversified and there are a range of options available that are relevant to the Scheme members' different time horizons and objectives. There are a number of available funds with a mandate particularly focussed on tackling climate and other ESG risks.

Opportunities – The Trustee will continue to consider to enhance the DC investments available to members, including considering the opportunities from assets that are expected to outperform or provide more resilience in climate scenarios.

These opportunities include **further sustainable equity** options and the potential introduction of **sustainable credit**. The Trustee will review these options in the context of ensuring high quality managers, the right strategic fit for members' portfolios, increasing options for members, alongside the governance require to implement these opportunities.

* The directional impacts under a divergent net zero scenario are likely to be similar to an orderly net zero scenario, albeit the magnitude and timing is expected to be delayed and uncertain.

TCFD recommendations – risk management

Risk management

The Trustee's processes for identifying, assessing and managing climate-related risks

Identification, assessment and management of climate-related risks

On this page we set out the approach to climate-related risk management; identifying the most material risks for the Scheme and developing controls and processes to manage such risks.

Scheme information

The Trustee and ESG Sub Committee review the climate-related considerations in their risk register on a periodic basis; the details of this are noted later in this section. The ESG Sub Committee received advice from the Scheme's Advisers covering the identification, assessment and management of climate-related risks across the following subjects: investment, actuarial, legal and covenant. The advice from the Scheme's Advisers will, where relevant, be considered across transitional and physical risks and opportunities.

The Trustee receives climate change training to understand how climate-related risks might affect pension schemes and to better understand which climate metrics are most relevant and measurable in the context of the Scheme's investments. These metrics are shown in the Metrics and Targets section of this report.

The ESG Sub Committee, in conjunction with the Scheme's Advisers, undertook a climate strategy review (including scenario analysis) in December 2022. This analysis provided an opportunity for the Trustee to identify and assess top down climate-related risks at the chosen short, medium and long term time horizons. The results of this analysis are shown in the strategy section of this report, including asset-class specific analysis.

The ESG Sub Committee, with the assistance of the investment consultant will review new and emerging risks as required at regular meetings. This will include using new market information and data, for example provided by investment managers, or the investment consultant's wider research.

Covenant

Climate-related risks are fundamental to the consideration of the sponsor, particularly given the nature of the sponsor's business. Ensuring sufficient oversight of sponsor related risks is a key priority for the Trustee. However, this is somewhat mitigated by the Scheme's strong funding position, relatively low-risk investment strategy and contingent asset funding arrangement.

As part of its covenant assessments, the Scheme's covenant adviser identifies climate risks and considers the materiality and timing of these risks relative to the Scheme's journey plan to inform Scheme strategy. The covenant adviser monitors risk using regulatory and policy announcements and company information and reports (including the Sponsor's TCFD report).

Liabilities

The Scheme's Actuary advises the Trustee on the identification, assessment and management of climate-related risks that are material to the Scheme's liabilities.

For instance, the scenario analysis undertaken in December 2022, provides the Trustee with a holistic overview of the ways in which climate change may affect the Scheme's funding position. This included consideration of the impact on the Scheme's liabilities of changes in future yields and inflation, as well as changes in expectations of how long members may live on average (and outlining the opportunities to mitigate these risks).

Risk management

The Trustee's processes for identifying, assessing and managing climate-related risks

Investment Managers

Whilst the Trustee retains overall responsibility, the Trustee delegates day-to-day management of the investments to investment managers, and the Trustee expects the managers to be identifying, assessing and managing climate-related risks on an ongoing basis in line with the manager's mandates as set out in their investment management agreements. SCIFL, as the Scheme's main investment implementation body, meet with the Scheme's principal managers on an ongoing basis, and the Trustee's Investment Consultant holds a quarterly review with each manager where there is material exposure. SCIFL require and rely on the risk management of investment managers, which they monitor through agreed reporting and the engagement of the investment consultant.

The ESG Sub Committee receives a regular report from its Investment Consultant that assesses each of the underlying managers with regard to the level of ESG integration for each portfolio. This assessment has a strong focus on climate-related risks and now includes a climate score for each of the underlying managers. Example criteria for this assessment are shown on the right.

Each portfolio is assessed across five key areas (Investment approach, Risk management, Voting & Engagement, Reporting, and Collaboration). At a high level, all of the Scheme's managers where there is material exposure received at least satisfactory ratings, with explicit engagements targeted at portfolios with lower ratings. The ESG Sub Committee expect its Investment Consultant to evolve and adapt its assessment as climate-related considerations develop.

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

Stewardship Activity

The Trustee recognises the importance of stewardship in the role asset owners have in relation to driving change and aiding the transition to a lower carbon economy.

The Trustee delegates stewardship responsibilities (Voting & Engagement) to its investment managers, and the managers should engage and vote on all issues, including climate, in the best interests of the Scheme's members. Notable stewardship activity is published in the Scheme's annual Implementation Statement. Voting and Engagement is a specific area of focus of the Investment Consultant when assessing managers, and these results are reported to the Trustee annually. Note voting is only reported for the public equity mandates.

The Trustee has set ESG priorities (including climate-related issues) in its ESG Beliefs Document, and will engage with its principal managers on these matters, and the Trustee will assess the extent to which managers are aligned.

Risk management

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

Risk management framework

Climate-related risks and opportunities are fully considered and integrated into the investment process by the Trustee and relevant sub committees. Here we outline some of the material climate-related risks that the Trustee considers within the risk management framework, as included in the Scheme risk register.

Climate Risk	Commentary Extract	Controls	Actions
Investment Strategy	<ul style="list-style-type: none"> Negative financial impact on the Scheme's assets caused by climate change: <ol style="list-style-type: none"> Physical Risks: the physical effects of climate change and other environmental factors, e.g. floods, droughts, tsunamis, hurricanes, and the effects on the investee companies' operations; and Transition Risks: the transition to an environmentally sustainable position, including: policy risks, legal risks, technology risks, market risks, reputational risks. 	<ul style="list-style-type: none"> Adoption and implementation of the Trustee's ESG Beliefs Statement. Trustee takes professional advice and training from consultants and legal advisers. 	<ul style="list-style-type: none"> Annual monitoring of assets against climate targets. Triennial scenario analysis (or more regularly following material change in strategy or demographics carried out by Investment Consultant).
Covenant: Sponsor	<ul style="list-style-type: none"> Worsening covenant position associated with the impacts of climate change (transitional and physical). Sponsor affected by physical or transition risks: <ol style="list-style-type: none"> ESG factors negatively impacting sponsor's major customers. Climate change negatively affecting operations. Damage to reputation and/or legal challenge. 	<ul style="list-style-type: none"> Trustee has IRM framework which includes regular reviews of the covenant. 	<ul style="list-style-type: none"> Monitor sponsors' covenant strength from a climate change risk perspective, with support from external professional covenant consultant. Regular review with sponsor.
Asset and investment manager allocations	<ul style="list-style-type: none"> Investment managers do not adequately integrate financially material ESG factors (including climate risks) in their risk management framework. Investment managers do not adopt effective stewardship. Investment managers do not consider potential investment opportunities. 	<ul style="list-style-type: none"> Trustee takes professional advice and training from consultants and legal advisers. 	<ul style="list-style-type: none"> Monitoring managers and asset classes on the risks and opportunities that arise from climate change. Ongoing engagement with investment managers on integration of climate risks and opportunities.
Funding Level	<ul style="list-style-type: none"> Funding target is increased at future actuarial valuations due to higher expected costs / greater uncertainty / weaker sponsor due to climate-related reasons Cost of longevity insurance increases due to climate change. 	<ul style="list-style-type: none"> Actuary, sponsor, investment consultant and covenant consultant all involved in ongoing funding level assessment and IRM. 	<ul style="list-style-type: none"> Training and advice on potential funding impact using climate scenario analysis with advice from consultants.

TCFD recommendations – metrics and targets

Metrics and targets

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

Metrics

GHG emissions are a key factor to consider in the context of climate change. There are a number of economic activities that result in the release of GHGs into the atmosphere, primarily as a result of burning fossil fuels for energy, travel and manufacturing. These GHGs are heat-trapping in nature and result in a 'greenhouse effect' where the Sun's energy is trapped, causing the Earth to warm. Reducing the amount of GHGs within the atmosphere is important for controlling global warming and the corresponding physical impacts of climate change.

The ESG Sub Committee, aided by the investment consultant, has gathered four climate change metrics during 2022 and will monitor these metrics initially on an annual basis, in line with TCFD recommendations.

1. One absolute emissions metric:
 - **Total greenhouse gas emissions** (tCO₂e: Tonnes of carbon dioxide equivalent, where CO₂e expresses the impact of each different greenhouse gas in terms of the amount of CO₂ that would create the same degree of warming).
2. One emissions intensity metric
 - **Carbon footprint** (tCO₂e/\$m EVIC. EVIC is Enterprise value including cash).
3. One additional climate change metric
 - **Data quality** (% of scope emissions that are reported by different categories: verified, reported, estimated, unavailable).
4. One portfolio alignment climate change metric
 - **Implied temperature rise (ITR)** (The temperature pathway the mandate aligns to, expressed as a projected increase in global average temperatures by the end of the century. A Paris-aligned strategy should have an ITR of 1.5°C).

For some asset classes, notably the private market assets within the DB section, data availability is currently limited. At the time of measurement, the Scheme's main passive equity (in the DC section) manager did not provide total GHG emissions for its equity holdings. The manager expects to be able to provide this data in the future however.

Data quality is a priority for the Trustee so that proper judgements can be made, The Trustee has decided to report only on Scope 1 & Scope 2 emissions at present (the direct and indirect emissions from company owned or controlled sources and from purchased energy). Scope 3 data is currently very limited (Scope 3 encompasses emissions that are not produced by the company itself and are not the result of activities from assets owned or controlled by them, but by those that it's indirectly responsible for up and down its value chain).

The Trustee makes clear to the investment managers, via the investment consultant, that the quality of data provided is expected to improve over time.

Metrics and targets – DB section

Scope 1 and scope 2 greenhouse gas (GHG) emissions, and the related risks

Metrics baseline

The Trustee gathered climate metrics for its portfolio as at 31 March 2022. This page shows the metrics gathered for the Scheme's investment portfolios (DB).

Due to lacking data coverage and methodology difficulties (private markets in particular), the Trustee was only able to obtain data for c.30% of the portfolio as at 31 March 2022. Poor data coverage and low data quality provides a material hurdle to the Trustee in the identification and assessment of climate-related risks. The Trustee expects data quality to improve over the next few years. Data issues are a broader issue for the investment management industry and not just specific to the Scheme's managers. The ESG Sub Committee and Scheme's Investment Consultant have pressured the Scheme's principal investment managers to improve the availability of climate metrics.

Note the data has been provided by the investment managers and where results were unexpected these were queried by the investment consultant. There is however a reliance on the information provided by the investment managers.

Fund (DB Section)	Valuation as at 31 March 2022 (£m)	Total GHG emissions (scope 1 & 2)		Carbon footprint (scope 1 & 2)		Data quality % of scope 1 & 2 emissions that are:				Implied Temperature Rise	
		Metric	Coverage	Metric	Coverage	Verified	Reported	Estimated	Unavailable	Metric	Coverage
Funded Index Linked Gilts	398.3*	68,000	91%	165	91%	-	91%	-	9%	1.5-2	-
Unfunded Index Linked Gilts	1,102**	181,531	91%	165	91%	-	91%	-	9%	1.5-2	-
Bond fund A	98.7	7,694	48%	58	48%	-	39%	9%	52%	n/a	-
Bond fund B	193.6	5,884	27%	29	27%	-	27%	-	73%	2.0	36%
Other Mandates	868.3	-	-	-	-	-	-	-	100%	-	-
Total	1,558.9	263,111	30%	112	30%	-	29%	1%	71%	1.8	5%

Source: Investment Managers, consultant calculations. Total emissions figures based on amounts invested in each fund. Total GHG emissions: based on fund level information provided by the investment managers, and scaled down to amount invested. The ILG manager ILG portfolio emissions based on proportion of total UK emissions for which the portfolio is responsible based on UK government data. Coverage: denotes the % of each fund where emissions data is available. Bond Fund B data sourced from MSCI, which does not provide a split between, verified, reported or estimated emissions data. Carbon footprint: Bond Fund A carbon footprint metric based on \$1m invested rather than £1m invested. Implied temperature rise: The ILG manager ILG data based on data from the Climate Action Tracker. *The ILG manager funded ILG is from Northern Trust. **The ILG manager metrics are from The ILG manager. The ILG manager unfunded ILG is from The ILG manager. Some totals are a sum of all of the assets (funded only). Some are a weighted average total. Some are weighted averages of the mandates that have reported.

Metrics and targets – DC section

Scope 1 and scope 2 greenhouse gas (GHG) emissions, and the related risks

Metrics baseline

The Trustee gathered climate metrics for its portfolio as at 31 March 2022. This page shows the metrics gathered for the Scheme's investment portfolios (DC). This covers all DC assets across the different investment options (excluding cash) as at the analysis date.

Note the data has been provided by the investment managers and where results were unexpected these were queried by the investment consultant. There is however a reliance on the information provided by the investment managers.

Fund (DC Section)	Valuation as at 31 March 2022 (£m)	Total GHG emissions (scope 1 & 2)		Carbon footprint (scope 1 & 2)		Data quality % of scope 1 & 2 emissions that are:				Implied Temperature Rise	
		Metric	Coverage	Metric	Coverage	Verified	Reported	Estimated	Unavailable	Metric	Coverage
Sustainable Equity fund 1	25	58	97%	6	97%	-	56%	41%	3%	-	-
Equity fund 1	94	8031	98%	69	98%	-	86%	9%	5%	2.6	92%
Sustainable Equity fund 2	32	515	100%	11	100%	-	95%	3%	2%	1.8	98%
Sustainable Equity fund 3	29	221	99%	12	99%	-	58%	36%	6%	2.2	96%
Equity fund 2	471	-	-	62	97%	-	-	-	-	2.9	96%
Bond fund 1	32	196	23%	5	23%	-	18%	4%	78%	3.3	22%
Bond fund 2	50	-	-	148	-	-	-	-	-	-	-
Bond fund 3	38	702	76%	16	56%	-	60%	16%	24%	-	-
Bond fund 4	103	56,541	37%	43	37%	-	-	-	-	2.0	36%
Total	874	66,264	29%	56.1	80%	-	24%	4%	72%	2.8	74%

Source: Investment Managers, consultant calculations. Total emissions figures based on amounts invested in each fund.

Total GHG emissions: based on fund level information provided by the investment managers, and scaled down to amount invested. Equity fund 2 cannot currently provide total GHG emissions data.

Coverage: denotes the % of each fund where emissions data is available. Bond Fund B data sourced from MSCI, which does not provide a split between, verified, reported or estimated emissions data.

Carbon footprint: Equity fund 1 & 2, and sustainable equity fund 2&3 carbon footprint metric based on \$1m invested rather than £1m invested. Bond fund C carbon footprint metric based on EUR1m invested. Bond Fund B carbon footprint figure represents GHG intensity of an economy (in tons per USD million GDP nominal).

Some totals are a sum of all of the assets. Some are a weighted average total. Some are weighted averages of the mandates that have reported.

All funds have been included in the DC section, as the data was largely available. We note the regulations only require the reporting of 'material' funds.

Metrics and targets

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

DB Section: Data quality target

Target: achieve 66% coverage (at least 66% estimated, reported or verified) by 2025 across the DB section of the Scheme, this will enable the Trustee to make meaningful carbon-related targets in the future (c.30% as at 31 March 2022).

DC Section: Data quality target

Target: achieve 66% coverage (at least 66% estimated, reported or verified) by 2023 across the DC section of the Scheme, this will enable the Trustee to make meaningful carbon-related targets in the future. The DC Section is invested primarily in public market investments and should have meaningful coverage next year (c.30% as at 31 March 2022).

Appendix

Strategy

Scenario analysis appendix

Modelling principles

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

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

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

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

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

Modelling limitations

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

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

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

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

Strategy

Scenario analysis appendix

Climate scenario analysis

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

1. Selection of **climate scenarios** from the Network for Greening the Financial System. The interpretation and implementation of these scenarios are detailed below, across these building blocks.
2. Inclusion of climate scenarios within Moody's **climate model**, composed of two building blocks: a socioeconomic REMIND-MAGPIE general equilibrium model, modelling macroeconomic growth and energy systems. This assumes that markets are efficient and sets out traditional economic assumptions around the evolution of economic markets. This is combined with the MAGICC 6 climate model, modelling climate and weather. The model runs 600 climate scenario projections and takes the median outcome for each climate scenario: current policies, divergent net zero and net zero 2050. There is interplay between these models.
3. The investment model determines how different asset classes will react under the different climate change scenarios analysed, and across time. It is also composed of two building blocks: Moody's Economic Scenario Generator, modelling economic pathways. This is combined with a proprietary investment model, which models the impact on investments.
4. The output is an understanding of the potential impacts on **investment strategy and asset class outcomes**, as well as the **funding position**. In particular, the impacts of rising transitional and physical costs associated with climate change are assessed.

Glossary

Metric	Description	
Absolute Emissions Metric: 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	$\sum_n^i \left(\frac{\text{Current value of investment}_i}{\text{Investee company enterprise value}_i} \right) \times \text{investee company's scope 1 and 2 emissions}_i$
Emissions Intensity Metric: 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	$\frac{\sum_n^i \left(\frac{\text{Current value of investment}_i}{\text{Investee company enterprise value}_i} \times \text{investee company's scope 1 and 2 emissions}_i \right)}{\text{Current value of all investments (£ millions)}}$
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	
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

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.
- **Total greenhouse gas emissions** (tCO₂e: Tonnes of carbon dioxide equivalent, where CO₂e expresses the impact of each different greenhouse gas in terms of the amount of CO₂ that would create the same degree of warming).
- **Carbon footprint** (tCO₂e/\$m EVIC. EVIC is Enterprise value including cash).
- **Data quality** (% of scope emissions that are reported).
- **Implied temperature rise** (The temperature pathway the mandate aligns to, expressed as a projected increase in global average temperatures by the end of the century. A Paris-aligned strategy should have an ITR of 1.5°C).

