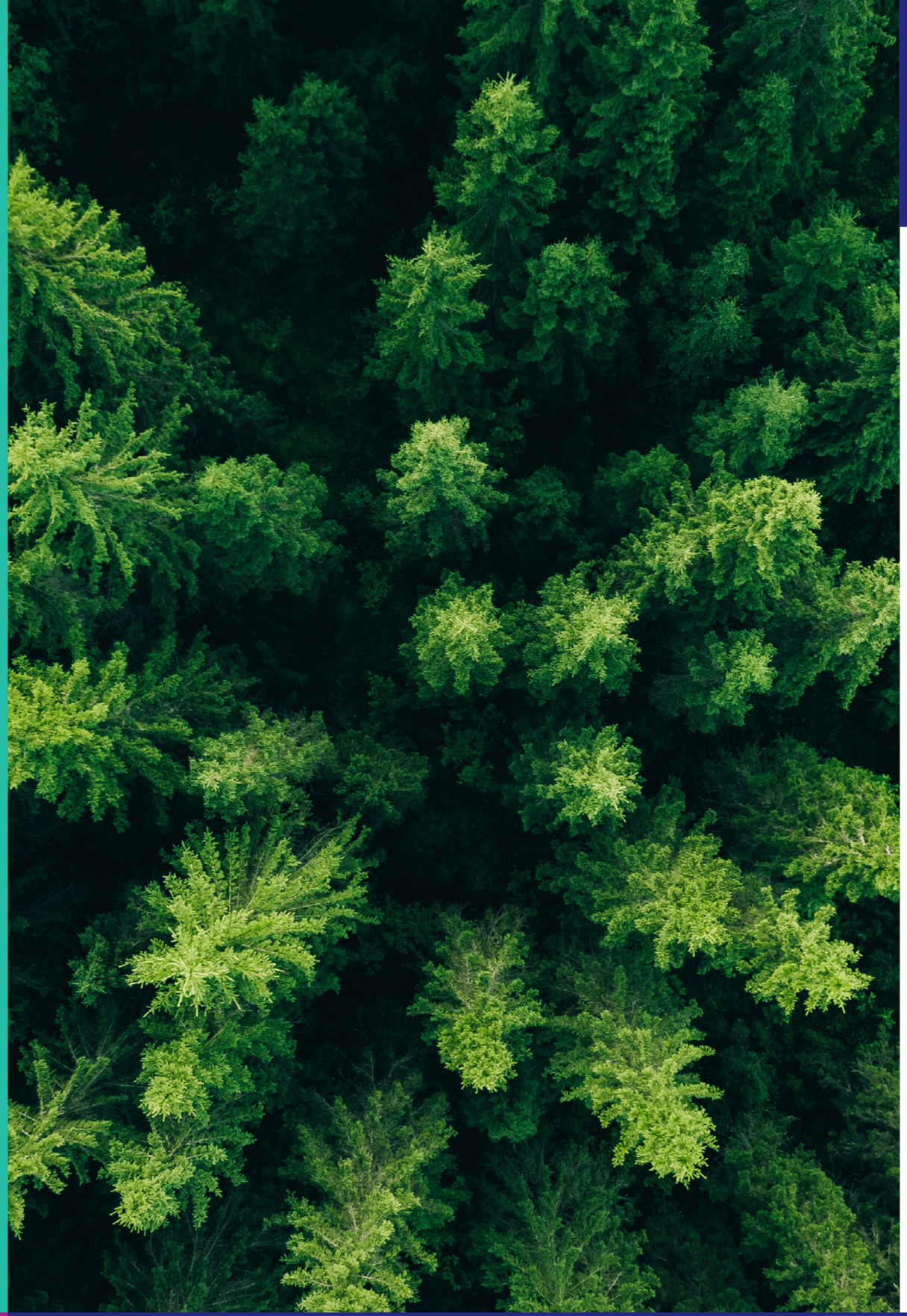
Task Force on Climate-related Financial Disclosures (TCFD)

t|p|t
Retirement Solutions

Report 2025

1 October 2024 – 30 September 2025



Contents

Executive summary

This Task Force on Climate related Financial Disclosures (TCFD) report sets out how Verity Trustees Limited (VTL) identifies, assesses and manages climate related risks and opportunities across the **Defined Benefit (DB)** and **Defined Contribution (DC)** arrangements of The Pensions Trust during the 2024/25 reporting year (1 October 2024 to 30 September 2025).

It reflects VTL's ongoing commitment to transparency, effective climate governance and disclosure in line with the Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021 (the DWP TCFD Regulations).

The Trustee recognises climate change as a financially material systemic risk. The impacts of climate related events, as well as evolving policy and regulatory developments, have the potential to affect member outcomes, invested assets and long term funding requirements. VTL is committed to managing these risks while identifying and capturing investment opportunities arising from the transition to a low carbon economy. The Trustee supports the objectives of the TCFD framework and remains committed to transparent, decision useful disclosures that support effective climate risk management and the delivery of long term value for members.

The report is structured in line with the four pillars of the TCFD framework: **Governance, Strategy, Risk Management,** and **Metrics and Targets.**

Key messages for 2024/25

✓ **Strong governance remains in place**

Climate oversight is fully embedded at Board and committee levels, supported by formal policies, specialist advice, regular reporting and targeted training.

✓ **Climate considerations continue to shape investment decisions**

Climate-related risks and opportunities are integrated into asset allocation, investment manager oversight, stewardship and long-term strategy across both DB and DC arrangements.

✓ **Updated climate scenario analysis has been completed**

The 2025 climate scenario analysis provides an updated assessment of the resilience of both DB and DC strategies under a range of different scenarios. A summary of the results is included in this report, with further detail provided in the Appendix. Overall, the climate scenario analysis suggests that the Trustee's current investment strategy demonstrates a degree of resilience across a range of plausible climate pathways, while highlighting areas of sensitivity that warrant ongoing monitoring and active stewardship.

✓ **The Trustee has met its 2025 interim carbon-intensity target**

The Trustee has achieved its interim objective to reduce portfolio carbon intensity by at least 25% by 2025 relative to a 2019 baseline. In doing so, the Trustee recognises that reductions in financed emissions at portfolio level do not always directly reflect the pace or nature of real-world emissions reductions. The Trustee continues to reflect on how best to ensure that its approach to target-setting remains credible, proportionate and focused on supporting real-economy transition, while continuing to meet fiduciary obligations and pursue appropriate investment opportunities.

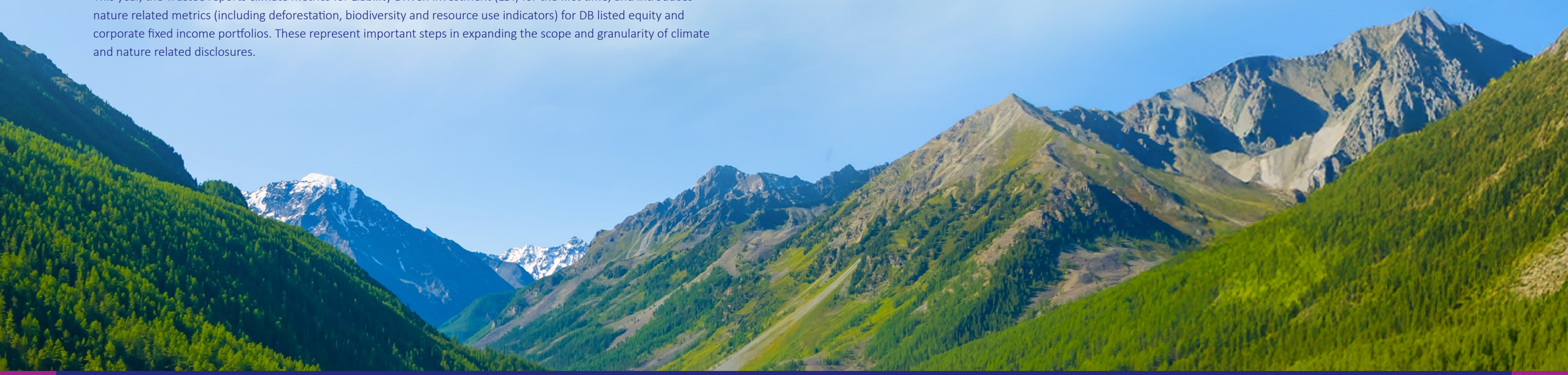
✓ **Data coverage and quality continue to improve**

This year, the Trustee reports climate metrics for Liability Driven Investment (LDI) for the first time, and introduces nature related metrics (including deforestation, biodiversity and resource use indicators) for DB listed equity and corporate fixed income portfolios. These represent important steps in expanding the scope and granularity of climate and nature related disclosures.

Next steps

We remain committed to strengthening our approach and are focused on a number of strategic priorities that will shape the next phase of our climate and responsible investment activities..

- A key priority is the continued enhancement of our stewardship approach, with a sharp focus on climate change. This includes further strengthening our stewardship framework to support more targeted and impactful engagement and voting activity, aligned with our net zero ambition, and designed to drive meaningful improvements in company behaviour, governance and transition planning.
- In parallel, we are deepening our work on natural capital. This includes improving the quality and integration of nature-related data, a subset of which is presented in this report, alongside the development of stewardship activity to address identified risks and opportunities.
- We are also committed to improving transparency through enhanced reporting. Building on our existing responsible investment disclosures, we aim to provide stakeholders with clearer, more comprehensive and more accessible insights into our climate-related actions, progress and challenges.
- Finally, having met our 2025 climate objective, we are reassessing our climate strategy beyond this milestone. This review reflects the recognition that portfolio decarbonisation to date has not always mirrored the pace or nature of real-world emissions reductions. We are therefore considering how future climate objectives can be developed to remain credible and purposeful.



Summary of findings against requirements

TCFD pillar	Disclosure Requirement	Summary of Findings
Governance Disclose the organisation's governance around climate-related risks and opportunities.	Describe the board's oversight of climate-related risks and opportunities.	The Trustee Board has ultimate responsibility for managing climate related risks and opportunities. Climate considerations are integrated into existing governance structures, including the Investment Oversight Committee and Funding Committee. These structures ensure regular oversight of climate considerations. Annual training and topic specific "deep dives" support informed decision making.
	Describe management's role in assessing and managing climate-related risks and opportunities.	For DB investments, VTL delegates investment decisions to TPT Investment Management (TPTIM). For DC, responsibility is delegated to AllianceBernstein. Both organisations, in turn, appoint authorised investment managers with the requisite climate related expertise. TPTIM and AllianceBernstein support the identification, assessment and management of climate-related risks and opportunities and provide regular reporting to enable effective Trustee oversight.
Strategy Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's business, strategy, and financial planning where such information is material.	Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	Climate related risks and opportunities are considered over short, medium and long time horizons. Key risks include transition risks arising from policy, technology and market developments and physical risks associated with acute and chronic climate impacts. Opportunities include investments aligned with the transition to a low-carbon economy, including renewable energy, climate-aligned infrastructure and other transition-enabling assets.
	Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	Climate factors influence asset allocation, manager selection, stewardship and long-term portfolio construction. Climate change affects DB and DC arrangements differently. DB schemes face risks through impacts on investment returns, sponsor covenant, and demographic assumptions. DC members are more exposed to market volatility and long-term structural changes but can also benefit from forward-looking investment strategies aligned with a transitioning economy.
	Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Climate scenario analysis was conducted to assess the resilience of DB and DC strategies under a range of plausible climate pathways. The analysis suggests that the Trustee's investment strategy demonstrates a degree of resilience across scenarios, while highlighting areas of sensitivity that warrant continued monitoring, stewardship and strategic oversight.
Risk management Disclose how the organisation identifies, assesses, and manages climate-related risks.	Describe the organisation's processes for identifying and assessing climate-related risks.	Climate-related risks are identified and assessed through the Risk Management Framework using tools including scenario analysis, risk registers, portfolio and sector-level monitoring, and engagement with investment managers and advisers.
	Describe the organisation's processes for managing climate-related risks.	Climate risks are managed through their integration into investment strategy, manager oversight, stewardship activity, funding and covenant assessment, and ongoing monitoring of portfolio exposures and emerging risks.
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	Climate-related risks are fully integrated into the Trustee's broader risk management processes and are considered alongside other financial and operational risks. Regular reporting, governance oversight and escalation pathways ensure climate risks are monitored and managed within the overall Risk Management Framework.
Metrics and targets Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	The Trustee monitors the four statutory climate metrics: absolute emissions, emissions intensity, data quality score (as the additional climate metric), and portfolio alignment (Implied Temperature Rise).
	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	GHG emissions across Scope 1, Scope 2 and Scope 3 categories are measured and reported for key asset classes including listed equity, corporate fixed income, real estate, infrastructure and LDI (reported for the first time this year).
	Describe the targets the organisation uses to manage climate-related risks and opportunities and performance against targets.	The Trustee has met its 2025 emissions intensity target and remains committed to its long term ambition to achieve net zero emissions by 2050.

Introduction

Responsible investment underpins the Trustee's approach to long-term investment decision making and active ownership. In exercising its fiduciary responsibilities, the Trustee recognises that climate change and broader sustainability factors have the potential to materially affect investment outcomes over time. As an asset owner with a long-term mindset and diversified holdings across global markets, the Trustee is inherently exposed to systemic risks that cannot be diversified away, including those arising from climate change.

Against this backdrop, the Trustee seeks to manage climate-related financial risks and opportunities in a structured and forward-looking manner, recognising that portfolio resilience depends not only on individual asset performance but also on the stability and sustainability of the economic systems in which those assets operate. The Trustee's objective is to support the delivery of secure retirement outcomes for members by maintaining a portfolio that is resilient to physical and transition risks, while positioning it to benefit from the shift to a lower-carbon economy.

Environmental, social and governance (ESG) considerations are integrated across the management of members' assets through the **Responsible Investment Framework**. The Trustee considers ESG integration to be a core component of effective risk management, reflecting the belief that ESG-related factors can materially influence long-term risk-adjusted returns. This perspective is articulated within the Trustee's **Investment Beliefs**, including Statement 10 ("Responsible investment helps identify and mitigate risks. Responsible investment may also enhance portfolio returns."), and **Responsible Investment Principles**.

Responsible investment considerations are embedded within the governance and risk management arrangements that support oversight of the portfolio. This approach is applied across both DB and DC arrangements and is set out in the Statement of Investment Principles (SIP) applicable to each strategy, reflecting the Trustee's objective of ensuring that climate-related risks and opportunities are considered consistently while recognising the distinct characteristics of each arrangement.

Our climate strategy

Climate change is recognised by the Trustee as one of the most significant systemic financial risks facing long-term asset owners. Its impacts are expected to be pervasive, with the potential to affect asset values, sectoral performance, macroeconomic conditions and the natural systems on which economic activity depends. Given the Trustee's exposure to broad market risks, addressing climate change requires a focus not only on portfolio composition but also on influencing real-economy outcomes.

Climate-related considerations are integrated across key stages of the investment process, including strategic asset allocation, portfolio construction, manager selection and oversight, stewardship and reporting. This integrated approach enables the Trustee to assess climate-related risks and opportunities across asset classes and time horizons, supporting more informed decision making.

The Trustee aligns its approach with the Net Zero Investment Framework (NZIF), which provides a structured framework for assessing portfolio alignment, setting decarbonisation pathways and supporting capital allocation towards climate solutions and transition-enabling activities. The NZIF also reinforces the importance of stewardship as a key lever for managing systemic climate risks.

The Trustee has set a long-term objective to achieve a net-zero emissions investment portfolio by 2050, supported by a **Climate Action Plan** that outlines the actions and interim priorities needed to deliver progress. The Climate Action Plan is designed to remain adaptive, enabling the Trustee to respond to evolving regulatory expectations, improvements in data quality and emerging best practice.

1. Be active in influencing the transition to a low carbon economy including reaching net zero within our operations.	**2.** Achieve net zero by 2050, with a decrease in our carbon intensity of at least 25% by 2025 and 50% by 2030.	**3.** Increase our investment in climate solutions to at least 6% of return-seeking assets by 2030.
4. Continue to build a rigorous approach to incorporating climate-change risks and opportunities into the way we invest members' assets.	**5.** Work together with companies, governments and standard-setters and disinvest when no alternatives are possible.	**6.** Regularly report back to members and wider stakeholders including through TCFD reporting.

Recent progress

During the reporting year, the Trustee continued to strengthen its approach to identifying, assessing and managing climate-related risks and opportunities. The **Climate Change Policy** was updated to provide greater clarity on the Trustee's position in relation to fossil fuel investments and to formalise expectations of appointed investment managers. These expectations include maintaining an articulated approach to climate risk management, demonstrating alignment with net zero objectives where appropriate, and using stewardship activities to support improved climate-related governance, strategy and disclosure at investee companies.

In addition, the Trustee developed a **Deforestation Policy** as part of its **Responsible Investment Framework**, reflecting the material financial and systemic risks associated with deforestation and the importance of supporting sustainable practices that protect and restore forest ecosystems. This work complements the Trustee's broader focus on nature-related risks and reinforces the role of stewardship in addressing environmental impacts across the portfolio.

Finally, a climate strategy review was undertaken in June 2025 to provide an updated assessment of climate-related risks, regulatory developments and the Trustee's overarching climate strategy. The review was intended to support informed decision making on next steps, strengthen oversight arrangements and ensure the effective delivery of the Trustee's net zero commitment in a rapidly evolving policy and market context.

Governance

Effective governance is central to the Trustee's oversight of climate-related risks and opportunities. The Trustee Board retains ultimate responsibility for all scheme-related matters.

2,422
Employers

492,378
Members

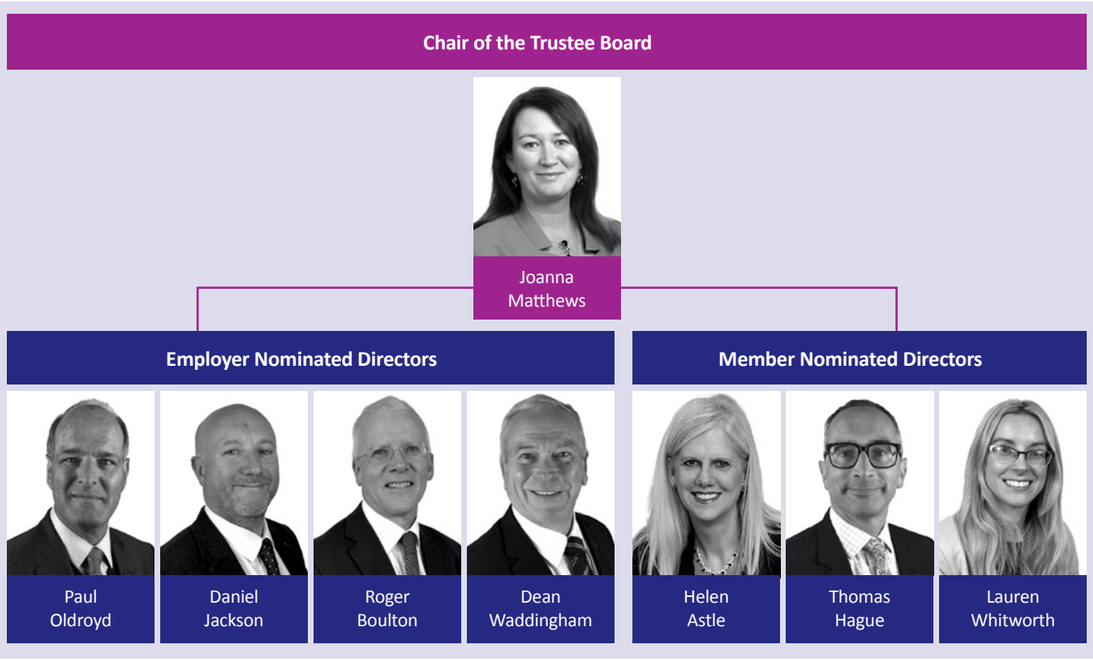
11bn
Assets Under Management

Verity Trustees Limited

VTL acts as the corporate trustee of The Pensions Trust and The Pensions Trust 2016. It is a company limited by guarantee and regulated by The Pensions Regulator.

The Trustee Board is responsible for acting in the best financial interests of members and beneficiaries, with a focus on safeguarding benefits and ensuring the effective governance and operation of the Master Trust, an authorised multi-employer occupational pension scheme. In discharging these responsibilities, the Trustee Board oversees the integration of climate-related considerations into investment decision making, risk management and stewardship activities across both DB and DC arrangements, supported by appropriate advice and reporting.

Figure 1. Trustee Board composition as at 30 September 2025[1]



[1]The composition of the Trustee Board was updated on 1 October 2025 with the appointment of Jayne King as a Member-nominated Director.

Subcommittees of VTL

Mark Laidlaw
Chair of the Investment Oversight Committee

Investment Oversight Committee

Responsible for overseeing the performance of TPT Investment Management (TPTIM)[2] and AllianceBernstein, the appointed investment managers for the DB and DC portfolios, respectively.

Colin Richardson
Chair of the Funding Committee

Funding Committee

Makes scheme-specific funding and investment decisions for TPT's DB pension schemes and oversees the valuation process for all Trust DB pension schemes.

Audit, Risk and Compliance Committee

Ensures effective internal controls and compliance, oversees the annual audit process, and reviews the annual accounts of the Trusts.

Appeals & Discretions Committee

Reviews appeals at the second stage of the Internal Dispute Resolution Procedure and considers discretionary benefit payments.

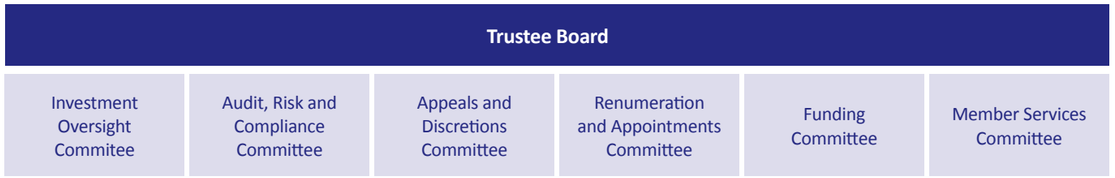
Remuneration & Appointments Committee

Approves the overall remuneration strategy for all Trustee Board and Committee members.

Member Services Committee

Oversees the services provided by TPT Retirement Solutions (TPT RSL)[3] to members, offering input on service enhancements and agreeing on administration policy as required.

Figure 2. Governance structure



[2]TPTIM is authorised and regulated by the Financial Conduct Authority (FCA) and provides investment management and consultancy services to UK pension schemes. It is a wholly owned subsidiary of TPT RSL. TPT RSL provides pension management and administration services to UK pension schemes. TPT RSL is wholly owned by VTL.

Board and committee oversight

The Trustee Board provides strategic direction on climate-related matters and ensures that climate risk is considered within the broader context of investment, funding and member outcomes. Climate-related factors are incorporated into Board discussions through regular reporting, training and periodic "deep-dive" sessions. These inputs support the Board's ability to challenge, guide and oversee the implementation of climate-related policies and activities.

The Trustee Board reviews and approves key documents and policies that underpin VTL's approach to climate governance, including the Climate Change Policy, the Climate Action Plan, the SIP for each arrangement and other relevant policies within the Responsible Investment Framework.

Climate-related risks are considered as part of the Trustee's risk appetite and are embedded within decision making affecting strategic investment direction, risk management, stewardship and long-term planning.

Climate-related responsibilities are also delegated to key committees, which ensure effective oversight and implementation of the Trustee's climate-related policies. The Investment Oversight Committee oversees investment performance, climate-related risks and opportunities, and the implementation of the Responsible Investment Framework. The Funding Committee considers climate-related factors that may influence long-term funding plans, employer covenant assessments and the resilience of DB schemes. Climate risks that may affect funding strategies are escalated to the Board where appropriate.

The Investment Oversight Committee meets on a quarterly basis, with material issues escalated to the Trustee Board. Climate related matters that require cross committee consideration – such as strategic policy changes, target setting or responses to regulatory developments – are settled at Board level. The Board holds an annual climate "deep dive", supplemented by quarterly reporting produced by TPTIM. Reports include quarterly Active Ownership Reviews and ESG Factsheets, which provide updates on stewardship activity, engagement case studies and key climate and nature related metrics.

Delegation to investment managers

For DB investments, the Trustee delegates investment decision making to TPTIM. For DC, the Trustee delegates investment decision making to AllianceBernstein. Both TPTIM and AllianceBernstein are expected to ensure that appointed investment managers have the skills, governance structures and processes required to manage climate-related risks and opportunities effectively. Climate-related expectations are formalised within mandates, and oversight is conducted through ongoing reporting, engagement and annual reviews of climate-related performance and stewardship activity.

Key policies and processes

The Trustee undertakes an annual review of relevant policies and processes to ensure that climate-related risks and opportunities, alongside broader responsible investment considerations, are appropriately identified, assessed and managed. This review informs the Trustee's ongoing oversight of how climate-related factors are integrated into investment decision making, risk management and stewardship activities.

The Trustee considers that a comprehensive and systematic approach to ESG matters supports effective risk management and may contribute to improved long-term investment outcomes. In support of this approach, the Trustee has:

- Established a suite of Responsible Investment Principles that set out its expectations and approach to responsible investment and stewardship activities;
- Implemented processes to ensure that both new and existing investments are assessed and managed with due regard to climate-related risks and opportunities throughout their lifecycle;
- Approved an overarching climate strategy, which includes the integration of climate considerations into investment strategy, the use of climate scenario analysis and the monitoring of relevant metrics and targets; and
- Identified climate change as a key risk requiring enhanced oversight, with regular consideration by the Investment Oversight Committee, Funding Committee and escalation to the Trustee Board as appropriate.

Training and capability

The Trustee Board is committed to maintaining and enhancing its knowledge and understanding of climate related financial risks. All Trustee Directors complete mandatory training and receive additional climate related training at least annually. Topic specific sessions – such as updates on regulatory developments, scenario analysis methodologies or emerging risks – are delivered through "deep dive" discussions.

The Trustee also uses annual skills assessments and feedback from committee members to identify knowledge gaps and plan training accordingly. This ensures that governance arrangements remain robust in rapidly-changing climate and regulatory environments.

During the reporting year, this included a climate strategy review conducted in June 2025, which provided an update on climate-related risks, regulatory developments and the Trustee's climate strategy. The session was intended to support informed decision making and strengthen the Trustee's oversight of the ongoing delivery of its net zero commitment.

Strategy

Climate-related risks and opportunities are integrated into the Trustee's investment approach and reflected across portfolio strategy and stewardship activity.

Climate-related risks and opportunities

Climate change is a key driver of long-term structural change in the global economy and financial system. Its impacts are expected to affect asset classes and sectors to varying degrees, through both physical effects and the transition to a low-carbon economy. These dynamics influence asset valuations, cash flows and risk premia, and are therefore relevant to long-term investment outcomes.

Understanding the nature, scale and timing of climate-related risks and opportunities is integral to the Trustee's investment approach. This supports informed decision making, effective risk management and the identification of opportunities aligned with long-term economic and environmental trends.

The Trustee considers two principal categories of climate-related risk:

- **Physical risks:** Physical risks arise from both chronic changes in climate patterns, such as rising average temperatures, and acute events, including the increasing frequency and severity of extreme weather events. Over time, these risks may affect investee companies through damage to assets, disruption to operations and supply chains, and increased operating and insurance costs. At a broader level, physical risks may also influence macroeconomic conditions and demographic trends, with potential implications for long-term investment performance.
- **Transition risks:** Transition risks result from the economic, regulatory, technological and behavioural changes required to limit global temperature increases. These risks are expected to be most pronounced in the short to medium term, particularly for carbon-intensive sectors facing increased regulation, carbon pricing, changing consumer preferences and rapid technological disruption. Poorly-managed transitions may lead to asset stranding, reduced profitability and increased volatility.

Alongside these risks, climate change also gives rise to a range of investment opportunities. These are expected to emerge as capital is reallocated towards activities and assets that support decarbonisation, climate adaptation and resilience. Opportunities may include investments in renewable energy, low-carbon infrastructure, energy efficiency, electrification and innovative technologies that enable the transition to a net zero economy. The Trustee seeks to ensure that the portfolio is positioned to benefit from these long-term structural trends where appropriate.

Table 1 illustrates how physical and transition climate-related risks and opportunities may affect key asset classes held by the Trustee.

Table 1: Climate-related transition and physical risks and opportunities by asset class

Asset Class	Transition Risks	Physical Risk	Opportunities
Listed Equities	High-emitting sectors may face declining valuations due to regulatory change, carbon pricing and shifts in consumer demand. Rapid technological change may challenge existing business models.	Extreme weather events and chronic climate change may disrupt company operations, affect physical assets and supply chains, and increase operating and insurance costs. Rising temperatures and resource constraints may also affect productivity, input costs and consumer demand across sectors.	Opportunities may arise from investment in companies developing low-carbon technologies, renewable energy and transition-enabling products and services. Companies with credible transition strategies and strong climate governance may demonstrate greater resilience and long-term growth potential.
Corporate Fixed Income	Increased credit risk for issuers in carbon-intensive sectors as transition costs rise. Stranded assets may weaken balance sheets and debt servicing capacity.	Physical damage to assets may impair operational performance and financial resilience. Climate events may increase insurance and refinancing costs.	Exposure to green bonds and sustainability-linked instruments financing climate-positive projects. Issuers with credible transition strategies and strong climate governance may demonstrate greater long-term credit resilience.
Real Estate	Stricter building standards and energy efficiency requirements may increase capital and compliance costs.	Assets in climate-exposed locations may face flooding, storm damage or heat stress, increasing maintenance and insurance costs.	Investment in energy-efficient buildings and retrofitting can reduce operating costs and enhance long-term asset value. Growing demand for sustainable and resilient properties.
Infrastructure	Carbon-intensive infrastructure may face obsolescence or regulatory constraints as the energy transition accelerates.	Extreme weather, water stress and temperature extremes may disrupt operations and increase maintenance requirements.	Long-term opportunities in renewable energy, grid infrastructure, public transport and climate-resilient assets supporting the net zero transition.

How climate change impacts DB and DC pension schemes

Climate change has the potential to affect pension schemes through multiple transmission channels, influencing investment performance, funding dynamics, member outcomes and sponsor strength. While the underlying drivers of climate risk are shared, the ways in which these risks and opportunities manifest differ between DB and DC arrangements.

Across both DB and DC investments, climate change represents a material, long-term risk that requires strategic consideration and active management. The Trustee's approach focuses on understanding how climate-related risks and opportunities may affect assets, liabilities and member outcomes, and on ensuring that governance, investment strategy and risk management processes remain robust in the face of an evolving environmental and regulatory landscape.

Defined Benefit

DB pension schemes are required to meet the statutory funding objective, ensuring that sufficient assets are held to pay members' accrued benefits as they fall due. A scheme's funding position is assessed by comparing the market value of its assets with the present value of its liabilities, typically expressed as a funding ratio or as a surplus or deficit. The valuation of liabilities is determined by the Scheme Actuary, using assumptions that reflect expected future economic and demographic conditions.

Climate change may affect DB schemes through several interconnected channels:

- **investment performance:** Climate-related risks will influence asset values and returns across the portfolio. Assets exposed to physical risks or transition pressures may experience increased volatility or impaired performance, while assets aligned with the transition to a lower-carbon economy may benefit from structural tailwinds over the long term.
- **Employer covenant:** Climate change may affect the financial strength of sponsoring employers, particularly in sectors exposed to regulatory change, technological disruption or physical climate impacts. This could influence the employer's ability to meet future contribution obligations and therefore the overall funding security of the scheme.
- **Mortality and longevity assumptions:** Changes in environmental conditions may influence long-term mortality trends. While the direction and magnitude of these effects are uncertain, climate-related factors could affect future longevity assumptions and, in turn, the valuation of scheme liabilities.
- **Macroeconomic conditions and inflation:** Climate-related disruptions, including extreme weather events, resource constraints and supply chain impacts, may contribute to inflationary pressures or changes in long-term interest rates. These dynamics can affect both the valuation of liabilities and the performance of liability-hedging assets.
- **Regulatory and policy developments:** Climate-related regulation and policy responses may affect investment markets and employer business models, with indirect implications for funding positions and scheme risk management.

Employer covenant

The Trustee's Covenant Team undertakes ongoing monitoring of sponsors' financial strength and ability to meet their obligations, engaging with employers where concerns arise between formal covenant reviews.

Given the scale and diversity of schemes within the Trust, climate-related covenant considerations are assessed on a sectoral basis.

This approach considers the potential impact of climate change on business models, profitability and cash flows, taking into account macroeconomic trends, regulatory developments and supply chain dependencies.

Mortality assumptions

Mortality assumptions are a key determinant of DB liability values and are reviewed as part of the actuarial valuation process. Climate change introduces both direct and indirect factors that may influence long-term mortality trends, although these effects remain subject to significant uncertainty.

Direct effects may include increased heat-related mortality or the impacts of more frequent extreme weather events. Indirect effects may arise through factors such as changes in air quality, water availability or public health outcomes.

At present, the Trustee considers the potential impacts of climate change on mortality qualitatively. As data quality improves and analytical techniques develop, the Trustee expects to further explore how quantitative analysis may be incorporated into future assessments. This area remains under ongoing review.

Defined Contribution

DC pension schemes are designed to invest members' contributions to build individual retirement "pots", with outcomes dependent on investment performance and contribution levels over time.

Climate change may affect DC arrangements in several ways:

- **Investment performance and volatility:** Climate-related risks may affect asset valuations, particularly in carbon-intensive or climate-exposed sectors, potentially leading to increased volatility or impaired returns over certain time horizons. Conversely, assets aligned with decarbonisation and climate solutions may benefit from long-term growth opportunities.
- **Member preferences and behaviour:** Member awareness of climate and sustainability issues continues to grow. This may influence member engagement, fund selection and demand for investment options that reflect ESG or climate-related considerations.
- **Regulatory and legal considerations:** Evolving regulatory expectations require DC schemes to consider and disclose how climate-related risks are managed. Failure to respond appropriately may expose schemes to regulatory, legal or reputational risks.
- **Long-term value creation:** Given the long-term nature of DC saving, climate change represents both a risk and an opportunity for value creation. Investment strategies that are responsive to climate-related risks and aligned with long-term sustainability trends may support improved outcomes for members over time.

Investment strategy

Climate-related considerations are embedded across the Trustee's investment strategy and are central to the delivery of its net zero ambition. This includes the integration of climate considerations into strategic asset allocation, portfolio construction, manager selection and oversight, and stewardship activities. Given the Trustee's position as a long-term asset owner exposed to systemic climate risk, the strategy prioritises both portfolio resilience and real-economy decarbonisation.

Asset allocation

Strategic asset allocation plays a key role in supporting the Trustee's net zero ambition. Investments in climate solutions, including green infrastructure and renewable energy, are a core component of the portfolio's return-seeking assets. The Trustee has committed to allocating at least 6% of return-seeking assets to climate solutions by 2030.

Since 2016, the portfolio has included dedicated allocations to renewable energy generation and enabling technologies, reflecting a long-standing commitment to supporting the transition to a lower-carbon economy while seeking attractive long-term risk-adjusted returns.

Screening

The Trustee's Climate Change Policy sets out clear expectations regarding exposure to activities that are considered misaligned with a net zero pathway. These include thermal coal, oil sands and Arctic drilling activities.

In 2024, the policy was updated to further clarify the Trustee's position on fossil fuel investments and to strengthen requirements placed on investment managers. Managers are expected to apply robust climate-related investment guidelines and stewardship approaches consistent with the Trustee's net zero objectives, recognising that exclusions alone are not sufficient to manage systemic climate risk.

Portfolio tilting

As part of its transition strategy, the Trustee implemented a climate-tilted approach within its passive equity holdings in 2021 through the reallocation to a Low Carbon Transition Global Equity Fund. This approach seeks to reduce exposure to high-emitting companies while maintaining broad market exposure.

The reallocation resulted in an approximate 79% reduction in absolute emissions from the equity portfolio between 2019 and 2021, while preserving diversification and return objectives. Portfolio tilting continues to be used selectively alongside other tools to manage transition risk.

Manager selection and oversight

The Trustee's net zero strategy is implemented through delegated investment arrangements. Prospective investment managers are required to demonstrate robust responsible investment capabilities, including expertise in identifying and managing climate-related risks and opportunities. Climate and ESG considerations are integrated into both initial due diligence and ongoing monitoring, supporting alignment with the Trustee's Responsible Investment Framework and climate objectives.

Stewardship

The Trustee considers stewardship to be a critical lever in delivering real-world decarbonisation and managing systemic climate risk. Active ownership is therefore a core component of the net zero investment strategy.

Through engagement and voting, the Trustee seeks to influence investee companies to improve climate governance, set credible transition plans and enhance climate-related disclosures. Stewardship is viewed as complementary to asset allocation and portfolio construction, rather than a substitute for them.

Selecting and monitoring managers

When appointing asset managers, TPTIM and AllianceBernstein assess their ability to identify, manage and report on climate-related financial risks and opportunities. This assessment considers the extent to which climate considerations are embedded within investment decision making, alignment with net zero objectives and relevant industry initiatives, the effectiveness of engagement and voting activity, and the quality and consistency of climate-related reporting, including emissions, temperature alignment and scenario analysis.

These assessments are complemented by a broader review of each manager's governance arrangements, investment processes and alignment with the Trustee's Responsible Investment Framework.

Ongoing oversight is maintained through regular monitoring to ensure managers continue to meet the Trustee's expectations. This includes annual reviews of climate-related performance and progress against net zero objectives, evaluation of engagement outcomes – particularly in relation to transition and physical risks – and monitoring of any changes to climate-related policies or strategic commitments.

Where gaps or areas for improvement are identified, TPTIM and AllianceBernstein engage with managers to drive progress. Persistent misalignment or underperformance may result in a reassessment of the manager's appointment.

Active ownership

The Trustee delivers its stewardship approach through delegated investment managers, who are expected to exercise voting rights and undertake engagement in line with the Trustee's voting and engagement policies and the principles set out in the SIPs.

Voting is used to promote long-term value creation and high standards of governance. Managers are expected to support improved climate and ESG disclosures aligned with recognised frameworks, encourage credible net zero and transition strategies, promote effective board oversight and accountability, and oppose practices that undermine long-term shareholder or stakeholder interests. Voting activity is monitored through quarterly reporting, including information on significant votes and the rationale for decisions taken.

Engagement is a core component of the Trustee's stewardship approach. Managers are expected to engage with investee companies on material ESG issues, including climate change and net zero alignment, governance and board effectiveness, human capital management and supply chain resilience, and biodiversity and nature-related risks. Managers report on engagement objectives, progress and outcomes, enabling the Trustee to assess effectiveness over time.

Recognising that many climate-related risks are systemic, the Trustee supports collaborative stewardship where this is likely to enhance impact. On the Trustee's behalf, TPTIM and AllianceBernstein participate in relevant collaborative initiatives with other investors and industry bodies, consistent with the Trustee's Investment Beliefs and Responsible Investment Framework.

Oversight of stewardship activity is maintained through regular review of manager stewardship reports, annual assessments of responsible investment ratings, and periodic "deep-dive" discussions to challenge approaches and test alignment with expectations. Where concerns are identified, engagement is undertaken to drive improvement, with persistent underperformance potentially leading to a reassessment of the manager's mandate.

Collaborative action

VTL recognises that, as a responsible asset owner, it has a role in supporting initiatives that enhance the regulatory and operational environment for all investors. To advance this goal, TPTIM and AllianceBernstein, on behalf of VTL, will engage in collaborative initiatives with other investors and industry groups, ensuring alignment with VTL's Investment Beliefs and Responsible Investment Framework.

In the area of climate action, these initiatives include the **Institutional Investors Group on Climate Change (IIGCC), Climate Action 100+** and the **Investor Policy Dialogue on Deforestation (IPDD).**

VTL is a signatory to the **Principles for Responsible Investment (PRI)** and the **UK Stewardship Code.** It is also a member of the **Paris-Aligned Asset Owners Group (PAAO).**

Climate scenario analysis

Climate scenario analysis is a forward-looking tool that helps investors assess how portfolios may be affected under different plausible climate-related futures. It explores how a range of climate-related drivers – such as physical climate impacts, policy and regulatory developments, technological change and shifts in market sentiment – could influence asset values over time, and identifies the associated financial risks and opportunities.

For pension schemes, climate scenario analysis provides a structured framework to assess long-term climate-related risks and resilience, supporting strategic investment, funding and risk management decision making. Under the TCFD Regulations, trustees are required to undertake climate scenario analysis in the first scheme year in which the Regulations apply, and at least every third scheme year thereafter. In years where a new analysis is not mandatory, trustees must review the most recent scenario analysis and assess whether it remains appropriate, or whether a new analysis is required to ensure their understanding of climate-related risks remains up to date.

In line with the three-year regulatory cycle, climate scenario analysis has been undertaken for the current reporting year through TPTIM. Following a review of the market and an assessment of available providers, TPTIM appointed Ortec Finance to deliver the analysis. Ortec Finance was selected due to its strong alignment with DWP and TCFD requirements, its ability to deliver multi-scenario, multi-horizon analysis, and its consistent modelling approach across a broad range of asset classes, including illiquid assets. The analysis integrates macroeconomic, sectoral and regional dimensions, supporting a comprehensive assessment of climate-related risks and opportunities.

In addition to supporting regulatory compliance, the analysis can provide valuable inputs into TPTIM's capital market assumptions and broader investment strategy work, strengthening the integration of climate considerations into investment decision making and risk management. Ortec Finance also delivered the Trustee's 2022 scenario analysis, enabling continuity of approach, efficient replication of asset mapping and a smooth delivery process for the current year.

Climate scenarios and time horizons

To assess the potential impacts of climate related risks and opportunities across both DB and DC schemes, the Trustee evaluated the portfolio under four climate scenarios, each representing a different transition pathway and level of global warming. Full scenario descriptions are provided in Appendix 1.

Net Zero (orderly transition)

An ambitious, coordinated global transition in which emissions reach net zero by 2055 and temperatures stabilise around 1.6°C above pre-industrial levels by 2100. Strong policy action, widespread adoption of low-carbon technologies and limited physical-risk impacts characterise this scenario. Financial market disruption is modest.

Delayed Net Zero (late but accelerated transition)

Meaningful policy action is delayed until 2030, after which transition efforts intensify. Emissions fall more slowly and reach net zero later in the century, with temperatures stabilising around 2.0°C by 2100. Transition risk materialises more abruptly – particularly around 2030 – while physical risks remain moderate.

Limited Action (partial transition, higher physical risks)

Policymakers take incremental steps, falling short of the commitments needed to align with the Paris Agreement. Temperatures rise to around 1.8°C by 2050 and 2.9°C by 2100. Transition risk is limited, but physical risks – such as extreme weather and heat stress – are more severe and have material financial implications, particularly from the 2030s onward.

High Warming (failed transition)

A scenario with little or no additional climate policy, leading to global temperatures rising to around 2°C by 2050 and 3.7°C by 2100. Multiple climate tipping points are reached, significantly increasing acute and chronic physical risks. Severe and frequent disruptions to productivity, infrastructure and supply chains lead to significant financial market impacts.

The Trustee assessed each scenario over short (10 years), medium (20 years) and long (40 years) time horizons, reflecting expected transition pathways, the duration of climate risk repricing and the typical investment horizon of members.

Table 2. Time horizons

Time horizon	Years	Rationale
Short	10 years	Captures near-term transition risks, including policy, regulatory, technological and market changes expected as economies accelerate decarbonisation during the late 2020s and early 2030s.
Medium	20 years	Reflects the period over which transition pathways are expected to be implemented and repriced by markets, spanning the 2030s and extending into the 2040s as economies progress towards net zero targets.
Long	40 years	Aligns with the typical duration of a young member's investment journey and captures the long-term physical risks associated with climate change.

Assumptions and limitations

The climate scenarios used in this analysis are developed by Ortec Finance using an integrated, science-based modelling framework. The scenarios represent plausible transition and physical-risk pathways, expressed as deviations from a central reference baseline. As with all forward-looking modelling, results are subject to important assumptions and limitations, including simplifications in economic relationships, the exclusion of certain behavioural and technological unknowns, and uncertainty around the timing of market repricing. A description of assumptions, methodology and limitations is provided in Appendix 2.

[3] The reference baseline is a deterministic version of the Ortec Finance Scenario Set, reflecting Ortec Finance's internal "house view" and calibrated using its economic models and expertise. The central probability-weighted outcome is broadly aligned with publicly available reference scenarios corresponding to a 2-3°C global warming range.

Figure 3. Scenario summary

Net Zero (1.6°C)

Why?

Evaluates the risks and opportunities under a highly ambitious but orderly transition with climate adaptation.

What?

- **Highly ambitious** low-carbon policy and rapid technology transition;
- Lower global temperatures enable **adaptation and lower physical risks** of climate change;
- Clear communication of ambitious policy and preparedness for physical risks mean financial markets **do not price** in future risks.

Delayed Net Zero (1.9°C)

Why?

Evaluates impact when a sudden step-up in policy action in 2030 drives a sentiment shock in financial markets.

What?

- Limited additional action until **2030**, when a highly ambitious set of low-carbon policies is introduced;
- **Partial adaptation** limits short- to medium-term physical risks;
- Financial **markets price in transition and physical risks** in 2030 to align with ambitious policy, followed by stranded assets and a sentiment shock.

Limited Action (2.9°C)

Why?

Evaluate how falling short of meeting emissions targets and pledges would drive high exposure to physical risks.

What?

- Emissions targets and commitments are **not fully met**;
- **High** chronic and acute physical risks;
- Financial markets **price in climate-related risks in 2030 and 2039** as the scale of future risks becomes more widely accepted and understood.

High Warming (3.7°C)

Why?

Evaluates implications of a future without any further action to limit climate change, triggering multiple climate tipping points and very severe physical risks.

What?

- **No new climate policies** are enacted, but transition progresses on economic ground;
- **Very severe** chronic and acute physical risks;
- Financial markets **price in climate-related risks in 2030 and 2039** as the scale of future risks becomes more widely accepted and understood.

Scenario analysis impact

Defined Benefit

The Trust encompasses over 50 DB schemes, including multi-employer arrangements, resulting in a diverse range of sponsoring employers and funding positions. Climate scenario analysis was undertaken on a scheme-specific basis.

Given the number and diversity of schemes within scope, presenting individual scheme outputs is not practical. However, to support meaningful interpretation and granularity, schemes have been grouped into cohorts based on covenant strength and maturity profile. This enables an assessment of how climate-related risks may affect funding resilience across different types of schemes. Further detail is provided in Appendix 4.

To better understand the transmission of climate risks, the DB portfolio's return-seeking assets were analysed across two sub-portfolios:

- **Growth Assets Portfolio:** Aimed at delivering long-term capital growth by investing in a diversified set of high-returning assets.
- **Matching-Plus Portfolio:** Focused on providing predictable returns through investment-grade assets.

Portfolio resilience

The modelling indicates that the portfolio is exposed to climate-related risks across all four climate pathways, although the nature, timing and magnitude of impacts vary by scenario and time horizon.

The **Orderly Net Zero** scenario results in the least disruption, while the **Delayed Net Zero** scenario produces the strongest near-term transition shock. The **Limited Action** and **High Warming** scenarios pose the greatest long-term financial risks, driven by escalating physical impacts and chronic deterioration of economic conditions. These effects are most evident within the Growth Assets Portfolio, which exhibits greater sensitivity to transition and market risks, compared with the more defensively positioned Matching-Plus Portfolio.

The table below provides a qualitative, directional summary of relative portfolio impacts based on the underlying quantitative scenario modelling. It does not represent forecasts or predictions of future investment performance.

Table 3. Summary of DB portfolio resilience under alternative climate scenarios

Scenario / Impact	Net Zero	Delayed Net Zero	Limited Action	High Warming
Short term 10 years	+	−	−	−
Medium term 20 years	=	−	−	−
Long term 40 years	+	−	−	−

+ Slight positive impact = No significant impact − Slight negative impact − Moderate negative impact − Strong negative impact − Very strong negative impact

Asset class insights

The scenario analysis highlights several patterns across asset classes.

Equities

Equities, particularly emerging market exposures, are most sensitive to adverse climate pathways. Transition-driven repricing is most pronounced under Delayed Net Zero, while cumulative physical risks weigh on long-term returns under Limited Action and High Warming scenarios. Paris-aligned and climate-aware strategies demonstrate comparatively stronger resilience across scenarios.

Fixed income

Emerging market debt shows heightened sensitivity under physical-risk-dominant scenarios, while investment grade credit provides more defensive characteristics under orderly and partial-transition pathways.

Real assets

Real estate and infrastructure become increasingly exposed to long-term physical climate risks under Limited Action and High Warming scenarios. Assets in climate-vulnerable regions may face higher adaptation, maintenance and insurance costs over time. Renewable and transition-aligned infrastructure demonstrates comparatively stronger resilience under transition-focused pathways.

Private credit

Private credit shows sensitivity to climate pathways, with larger impacts in years associated with abrupt repricing and worsening downside under higher warming over longer horizons. This highlights the importance of underwriting transition and physical risks at borrower and asset level, and monitoring refinancing and default risk in stressed scenarios.

Impact on assets, liabilities and funding

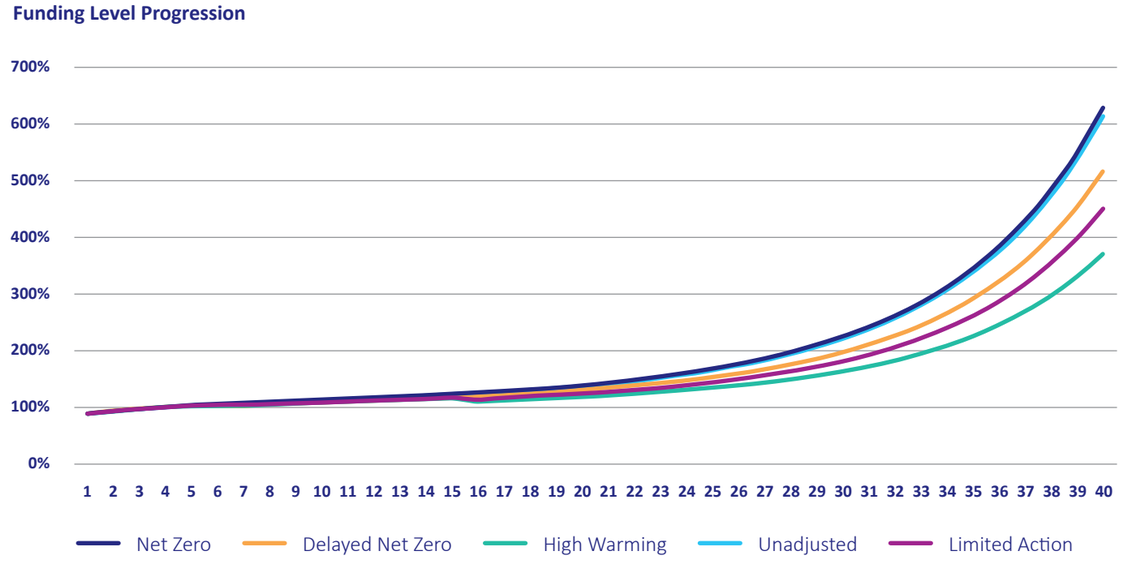
Scheme-level modelling undertaken by the TPT Actuarial Team assessed the impact of each climate scenario on projected asset returns and funding positions across individual DB schemes.

At an aggregated level, long-term asset values under a High Warming scenario are materially lower than under an orderly transition (Net Zero scenario), highlighting the financial relevance of transition timing and escalating physical risks. Funding divergence across scenarios is driven primarily by differences in long-term asset performance rather than structural changes in liability assumptions.

Table 4. Projected percentage difference in assets by scenario and time horizon – all schemes

Year	Net Zero	Delayed Net Zero	Limited Action	High Warming
10	0.38%	-2.50%	-2.21%	-3.37%
20	0.55%	-5.53%	-8.92%	-13.08%
40	2.17%	-15.93%	-26.81%	-40.08%

Graph 1. Projected funding level by climate scenario – all schemes



As noted above, to provide greater granularity, schemes have been grouped into cohorts based on covenant strength and liability maturity profile[4]. The analysis indicates that schemes with stronger covenant support and more mature liability profiles demonstrate comparatively greater resilience under adverse climate pathways. This reflects their typically lower reliance on long-term growth assets, higher allocations to matching assets and stronger employer capacity to absorb volatility.

Conversely, schemes with weaker covenant support experience amplified downside under disorderly transition and high-warming pathways. Climate scenario sensitivity also increases materially with liability duration, such that the combination of weaker covenant strength and an immature liability profile results in the greatest long-term dispersion relative to baseline outcomes.

[4] Covenant classification is based on the most recent covenant rating (Low Risk to High Risk). Maturity classification is determined using the calculated term to maturity in line with the 2025 Funding Code, with schemes categorised as Mature or Immature based on the model threshold applied within the actuarial projections.

All schemes
Across all schemes, the analysis indicates that the Orderly Net Zero pathway is broadly neutral to modestly positive across all time horizons. Delayed Net Zero and Limited Action scenarios produce increasing downside over time, reflecting the cumulative impact of transition disruption and physical risk. The High Warming pathway generates the most material long-term impact, with asset reductions of approximately 40% at Year 40 relative to baseline.

Covenant-based grouping
High risk covenant: Schemes classified as High Risk covenant exhibit greater long-term downside under adverse scenarios relative to the overall population. Under the High Warming scenario, Year 40 asset reductions are materially larger than the aggregate average, and under Delayed Net Zero, downside dispersion increases meaningfully by Years 20 and 40. This reflects the compounding effects of macroeconomic stress, market repricing and reduced covenant resilience under adverse transition or physical risk environments. **Low risk covenant:** Low Risk covenant schemes broadly track the aggregate results. While still exposed to long-term climate pathway divergence, the magnitude of downside is lower relative to High Risk schemes under disorderly and high warming scenarios. This indicates that stronger covenant support provides a degree of resilience to climate-related macroeconomic stress over the modelling horizon.

Maturity-based grouping
Immature schemes: Immature schemes demonstrate materially greater long-term sensitivity to climate scenario divergence. By Year 40, downside under the High Warming pathway is significantly larger than for mature schemes, and dispersion under Delayed Net Zero and Limited Action increases relative to the aggregate. This reflects longer liability duration and extended exposure to compounding economic and market impacts associated with temperature pathway divergence. **Mature schemes:** Mature schemes exhibit comparatively lower long-term dispersion. Although still exposed to transition risk in earlier years, the shorter liability horizon reduces exposure to long-run temperature-driven macroeconomic divergence, resulting in materially lower Year 40 downside impacts relative to immature schemes under adverse scenarios.

Combined covenant and maturity grouping
High risk & immature: The High Risk and Immature cohort demonstrates the greatest structural sensitivity to adverse climate pathways. Under High Warming, Year 40 asset reductions are materially greater than for all other cohorts, and downside under Delayed Net Zero is amplified relative to single-factor groupings. This reflects the interaction of weaker covenant resilience under macroeconomic stress and extended liability duration, which increases exposure to long-term climate pathway divergence. **Low risk & mature:** The Low Risk and Mature cohort demonstrates comparatively lower long-term sensitivity. Downside under High Warming and Delayed Net Zero remains material but is meaningfully reduced.

Further detail on the impact of covenant strength and maturity profile is provided in the Appendix.

Defined Contribution

For DC schemes, where the risk of insufficient retirement income lies with individual members, climate scenario analysis focused on the projected impact of alternative climate pathways on expected investment returns across the lifecycle. Four Target Date Fund (TDF) vintages were assessed, representing different stages of a typical member journey:

1. At retirement	2. Pre-retirement	3. Mid-life	4. Young

Impacts were assessed as annualised deviations in expected returns over time horizons aligned to each vintage's remaining investment journey.

DC default strategy resilience

The modelling indicates that the DC default strategy is subject to climate-related risks under each of the four climate scenarios, with the scale and timing of impacts differing by pathway and by member cohort.

An orderly Net Zero transition is associated with the most stable outcomes across the lifecycle. By contrast, the Delayed Net Zero scenario introduces more pronounced near- to medium-term volatility as policy tightening and market repricing occur over a compressed period. The Limited Action and High Warming scenarios give rise to the most significant long-term downside risks, reflecting the cumulative economic effects of rising physical damage, weaker productivity and sustained pressure on growth-oriented assets.

Differences between cohorts are primarily driven by the glidepath structure. Members in younger and mid-life stages, who retain higher allocations to equities and other return-seeking assets, show greater sensitivity to adverse climate pathways over longer horizons. Those approaching retirement, with more defensive allocations, experience comparatively smaller long-term deviations, although they are not fully insulated from short-term transition shocks.

Taken together, the results indicate that the default strategy is more resilient under scenarios characterised by early and orderly transition, with divergence between scenarios becoming more pronounced over extended investment horizons. The lifecycle design continues to provide a structured approach to balancing long-term return generation with risk reduction as retirement approaches.

The table below presents a qualitative, directional summary of relative impacts across TDF vintages derived from the underlying quantitative modelling. It should be interpreted as illustrative rather than predictive of future performance. Further detail on the methodology used to translate quantitative outputs into qualitative impact categories is provided in the Appendix.

Table 5. Summary of DC default strategy resilience under alternative climate scenarios

Scenario / Impact	Net Zero	Delayed Net Zero	Limited Action	High Warming
At retirement	=	−	−	−
Pre-retirement	−	−	−	−
Mid-life	=	−	−	−
Young	=	−	−	−

+ Slight positive impact = No significant impact − Slight negative impact − Moderate negative impact − Strong negative impact − Very strong negative impact

Implications and potential actions

Climate scenario analysis is used by the Trustee as a strategic risk management tool to assess the potential resilience of the investment strategy under a range of plausible climate pathways. The analysis does not represent forecasts or predictions of future performance, but provides insights into the relative direction, magnitude and drivers of climate-related financial risks and opportunities over different time horizons.

Across the scenarios assessed, the results indicate that climate transition and physical risks are expected to have uneven impacts across asset classes and sub-portfolios, reflecting differences in sector exposure, geographic footprint and sensitivity to policy, technology and physical climate factors. In aggregate, the portfolio demonstrates greater resilience to near-term transition shocks, with more pronounced divergence emerging over longer time horizons and under more disorderly transition pathways.

In the short to medium term, scenario impacts are relatively modest, reflecting the gradual transmission of climate risks into asset prices. Over longer time horizons, cumulative effects become more pronounced, particularly under scenarios characterised by delayed or disorderly policy responses. This reinforces the Trustee's focus on long-term risk management, active ownership and ongoing monitoring, rather than short-term portfolio re-positioning based solely on scenario outputs.

From a portfolio construction perspective, the analysis indicates that low-carbon and Paris-aligned strategies demonstrate comparatively greater resilience across a range of climate scenarios. This is consistent with the Trustee's existing DB portfolio positioning, where equity exposure is predominantly allocated to a low-carbon strategy, alongside allocations to renewable infrastructure within the real assets portfolio. It is also aligned with the design of the DC default strategy, where resilience is supported by broad diversification across asset classes and regions, allocations to climate-tilted and transition-aware equity strategies, progressive de-risking through the glidepath and diversified credit exposure in later stages of the investment journey.

The analysis also reinforces the importance of considering climate risk within both funding strategy and covenant assessment and of continuing to enhance climate risk management capabilities. This includes further development of the assessment of physical climate risks, particularly for real estate, infrastructure and emerging market exposures, as well as expanding the use of complementary analytical tools such as climate value at risk, portfolio warming potential and climate attribution analysis.

Finally, the results underline the continued importance of stewardship and engagement as core tools for managing climate-related financial risks. Engagement will continue to focus on companies and investment managers that lack credible transition plans or that are exposed to material physical risks, alongside reinforcing expectations regarding net zero alignment, effective climate governance and science-based decarbonisation pathways.

The Trustee will keep its approach to scenario analysis under review, including refreshing scenarios as appropriate to reflect developments in climate science, policy and market practice.

Risk Managenent

Climate-related risks present unique challenges. These risks are systematically identified, assessed, managed and monitored through the Risk Management Framework, ensuring that climate considerations are embedded within decision making and subject to robust oversight.

Risk Management Framework

The Trust operates a comprehensive Risk Management Framework, underpinned by established policies, processes and internal controls, to identify, manage, monitor and report risks effectively across the organisation. Climate-related risks are fully embedded within this Framework rather than treated as a standalone risk category, reflecting their pervasive and cross-cutting nature.

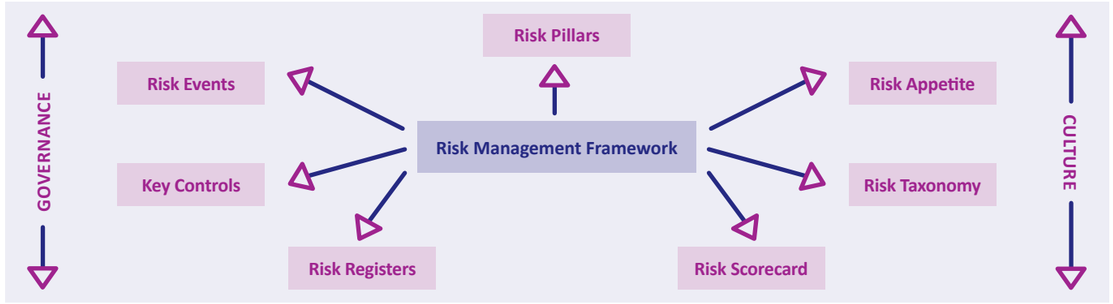
The Framework provides a structured and consistent approach to risk management, enabling risks to be assessed in terms of likelihood, impact and velocity, and ensuring appropriate mitigation strategies are in place. It is supported by several key enablers:

- **Risk horizon scanning** – Proactive identification of emerging and evolving risks across short, medium and long time horizons, including those arising from climate transition pathways, physical climate impacts and regulatory developments.
- **Change management risk assessment** – Systematic assessment of new or heightened risks arising from changes to strategy, investment structures, processes, systems or governance arrangements, ensuring climate-related implications are captured at an early stage.
- **Risk management information (RMI) and reporting** – Regular reporting to relevant committees, supported by thematic analysis, trend monitoring and root-cause reviews, enabling informed oversight and timely escalation where required.
- **Training and education** – Ongoing risk education and tailored training programmes to ensure that trustees, executives and relevant staff maintain a strong understanding of risk principles, including climate-related financial risks.

A number of mechanisms operate within the Framework to promote a proactive and disciplined approach to risk management:

- **Risk appetite metrics and key risk indicators (KRIs):** Quantitative and qualitative metrics are used to monitor exposure to principal risks, including climate-related risks, and to ensure that these remain within agreed tolerance levels.
- **Remedial action plans:** Where risks exceed, or are expected to exceed, risk appetite, action plans are developed and monitored to ensure timely mitigation and alignment with strategic objectives.
- **Risk hierarchy:** A structured hierarchy is applied, linking principal strategic risks through to operational and process-level risks, ensuring comprehensive coverage and clear ownership across the organisation.

Figure 4. Investment Risk Framework



Climate-related risk management

As part of its responsible investment approach, the Trustee considers a broad range of ESG risks, including corporate governance standards, human rights, bribery and corruption, labour practices and environmental management. Of these considerations, the Trustee recognises climate change as a material financial risk with the potential to affect asset values, funding outcomes and long-term member security.

The Trustee has developed a structured approach to ensure that climate-related risks – including both physical risks (such as extreme weather events and chronic climate impacts) and transition risks (arising from policy changes, technological developments and shifts in market behaviour) – are explicitly considered throughout the investment process. The Trustee's climate approach, including its commitments towards net zero, is set out in its **Climate Change Policy.**

Climate considerations are integrated into the Risk Management Framework through established tools and processes, including risk registers, scenario analysis and external benchmarking, supporting consistent identification, assessment and monitoring over time. Through this integrated approach, the Trustee ensures that climate-related risks are considered alongside other material risks in strategic planning, investment decision making and ongoing risk oversight.

Key processes

The Trustee's approach to managing climate-related risks is supported by the following key processes:

- **Governance and escalation:** Climate-related risks are monitored through regular reporting to the Trustee Board and its delegated committees, including the Investment Oversight Committee. This process is supported by TPT and TPTIM internal governance structures, including the Risk Committee and Executive Board, with escalation to the Audit, Risk and Compliance Committee where appropriate, ensuring clear accountability and effective oversight.
- **Investment oversight:** The Trustee monitors sectoral, regional and asset-class exposures to identify and manage concentrations that may be vulnerable to climate-related physical or transition risks.
- **Strategic decision making:** Climate-related risk considerations are incorporated into assessments of new investments, strategic initiatives and material structural changes. External investment managers are evaluated by TPTIM and AllianceBernstein on their integration of climate considerations, investment performance and alignment with the Trustee's responsible investment strategy.
- **Sponsor covenant assessments:** Climate-related risks are considered as part of sponsor covenant assessments, including the potential impact of physical climate risks on sponsor assets and operations, as well as transition risks associated with regulatory change, energy costs and evolving business models.
- **Training and capability building:** Ongoing training supports trustee and executive understanding of climate-related financial risks and their implications for investment and funding outcomes.
- **Policy framework and review:** The Climate Change Policy, Responsible Investment Framework, Responsible Investment Principles and SIPs are reviewed at least annually to ensure continued alignment with evolving climate-related risks, opportunities and regulatory expectations.
- **Stakeholder communication and transparency:** Implementation Statements, Stewardship Reports and TCFD disclosures are prepared annually and published for members and other stakeholders, supporting transparency and demonstrating the Trustee's commitment to effective stewardship and responsible investment.

Metrics and targets

Climate metrics play a critical role in understanding, monitoring and managing exposure to climate-related risks and opportunities. The use of climate data supports informed decision making, enhances risk oversight and helps guide actions aligned with the Trustee's objectives.

Prescribed climate metrics

In line with DWP regulations, the Trustee discloses the following four statutory climate metrics:

- **Absolute emissions metric:** Measures the total GHG emissions associated with the investment portfolio, providing an overall indication of the portfolio's contribution to climate change.
- **Emissions intensity metric:** Assesses GHG emissions relative to a financial measure, enabling comparison across portfolios and over time while providing context for changes in absolute emissions.
- **Additional climate metric:** Focuses on a non-emissions-based indicator. For the reporting year, the Trustee continues to use data quality scores, aligned with the Partnership for Carbon Accounting Financials (PCAF) methodology. These scores reflect the quality, coverage and estimation uncertainty of the underlying emissions data.
- **Portfolio alignment metric:** Assesses the extent to which the Trust's investments are aligned with global climate objectives, including the Paris Agreement goal of limiting global warming to 1.5°C above pre-industrial levels. The Trustee uses Implied Temperature Rise (ITR), where available. For infrastructure assets where ITR methodologies remain limited, the Trustee discloses the proportion of assets with a stated net zero commitment.

Full metric tables, including breakdowns by asset class and by scope, are included in the relevant subsections below.

Scopes 1, 2, and 3 emissions

The Trustee considers GHG emissions across all three scopes, in line with recognised reporting standards.

Scope 1	Scope 2	Scope 3
Direct emissions from sources owned or controlled by investee companies.	Indirect emissions from the generation of purchased electricity, heating and cooling.	Other indirect emissions across the value chain, including supply chains and the use of products and services.

Coverage, methodology and data sources

Coverage

The climate metrics presented in this report cover the following: listed equity, corporate fixed income, real estate, infrastructure and LDI.

LDI is reported for the first time in this report, reflecting the Trustee's continued efforts to enhance the scope and robustness of its climate reporting. As data quality and coverage continue to improve, the Trustee intends to extend climate metrics to additional asset classes over time.

Methodology

The Trustee applies the methodology developed by the PCAF, which provides an industry-recognised framework for measuring and disclosing GHG emissions financed by investment portfolios. This approach supports consistency, transparency and comparability with peers.

Data collection

For listed equity and corporate fixed income, emissions data are sourced via MSCI.

For real estate, infrastructure and LDI emissions data are provided directly by investment managers.

Challenges with data quality and coverage

While the availability and quality of climate data continue to improve, challenges remain, particularly in relation to Scope 3 emissions. Although Scope 1 and Scope 2 emissions data are generally more readily available for public asset classes, Scope 3 emissions – often the largest contributor to a portfolio's carbon footprint – are less consistently disclosed and are subject to greater estimation uncertainty. Data availability and quality also vary by asset class, geography and sector. As a result, the reported metrics currently cover only a portion of the portfolio. The Trustee, working through TPTIM and AllianceBernstein, continues to engage with investment managers and data providers to improve coverage, consistency and accuracy over time. The Trustee recognises that climate metrics are subject to methodological and data limitations and therefore considers them alongside qualitative assessments, scenario analysis and broader risk indicators when making strategic and investment decisions. As methodologies and data improve, historical figures may be subject to refinement.

Metrics and targets continued

The Trustee uses climate-related metrics to support oversight of climate-related risks and opportunities and to inform investment and stewardship priorities. Metrics are reviewed periodically to identify trends in portfolio emissions and assess progress over time.

These metrics inform engagement with investment managers and investee companies, particularly in relation to emissions reduction, transition planning and data quality improvements. They also support monitoring of alignment with the Trustee's climate objectives and provide an evidence base for evaluating the effectiveness of the Trust's responsible investment and stewardship activities.

Table 6 summarises the key climate metrics used by the Trustee, including their definitions, calculation methodologies and underlying rationale.

Table 6. Chosen climate metrics

TCFD Metric	Chosen metric	Description and calculation	Rationale
Absolute emissions	Absolute carbon emissions (tCO_2e)	The total GHG emissions attributable to a portfolio, measured in tonnes of CO_2 equivalent (tCO_2e).	Enables monitoring of overall portfolio emissions over time. Emission reductions should primarily result from reductions in absolute emissions from invested companies and assets rather than divestment or avoiding certain geographies, sectors or companies.
Emissions intensity	Carbon intensity (tCO_2e/£m invested) for corporate assets, infrastructure and LDI	Total portfolio emissions normalised by portfolio value.	Provides insight into the emissions profile of the portfolio and enables comparison across portfolios and time periods of different sizes.
	Carbon intensity (kg CO_2e/m^2) for real estate	Total carbon emissions normalised by floor area (m^2).	Facilitates specific evaluation of real estate assets, enabling tailored management strategies for emission reduction.
Additional climate metric	Data quality score	PCAF-aligned data quality scores indicate the accuracy of carbon footprint data. Scores range from 1 (highest quality) to 5 (lowest quality). Criteria vary by asset, with details provided in the PCAF Global GHG Standard.	Supports transparency around data reliability and coverage, recognising the evolving nature of carbon data.
Portfolio alignment metric	ITR for corporate assets and real estate	Forward-looking assessment of the alignment of portfolio emissions trajectories with global temperature outcomes, expressed in degrees Celsius.	Helps assess alignment with global climate goals, including the Paris Agreement, based on companies' transition plans and emissions pathways.
	Net zero objective for infrastructure	Proportion of infrastructure assets under management with a stated net zero commitment.	Recognises climate commitments where ITR methodologies are not currently available and provides an alternative measure of alignment with climate objectives.

Defined Benefit – Metrics as at 30 September 2025

TCFD climate metrics: listed equity and corporate fixed income

Covered Assets Under Management (AUM)[5]		£1.37bn
Absolute emissions (tCO_2e)	Scope 1	45.47bn
	Scope 2	10.80bn
	Scope 3	478.36bn
Emissions intensity (tCO_2e/£m invested)	Scope 1	33.16
	Scope 2	7.88
	Scope 3	398.40
Data quality score 1 (highest quality) - 5 (lowest quality)	Scope 1	2: 87.42% 3: 0.18% 4: 12.40%
	Scope 2	2: 85.91% 4:14.09%
	Scope 3	2: 71.78% 4: 28.22%
ITR (°C)		2.2

Additional climate metrics: listed equity and corporate fixed income

% AUM with GHG reduction targets	88.20%
% AUM with science-based targets (SBTi)	52.35%
Weighted fossil fuel revenue	1.79%
Weighted green revenue	7.50%

[5] AUM for which absolute emissions are measured based on data availability for Scope 1 and 2 emissions. Coverage for absolute emissions across Scopes 1, 2 and 3 is slightly lower, at £1.2bn respectively.

About these metrics

As at 30 September 2025, financed emissions associated with the DB portfolio's listed equity and corporate fixed income holdings amount to 56.27bn tCO_2e for Scope 1 and Scope 2, with a combined emissions intensity of 41.04 tCO_2e/£m invested. Scope 3 emissions, which capture indirect value-chain emissions, account for a significant proportion of total financed emissions, totalling 478.36bn tCO_2e with an emissions intensity of 398.40 tCO_2e/£m invested. Data quality is strongest for Scope 1 and 2 emissions, while Scope 3 estimates rely more heavily on modelled data. The portfolio's ITR is 2.2°C.

In terms of transition alignment, 88.20% of AUM is invested in companies with GHG reduction targets, and over half (52.35%) has science-based targets. Exposure to fossil fuel revenues remains limited, while green revenue exposure provides some evidence of alignment with climate-related opportunities.

The portfolio's fossil fuel revenue exposure is 1.79%, representing the proportion of investee company revenues attributable to fossil fuel related activities. This metric aggregates revenue from thermal coal, conventional and unconventional oil and gas, oil and gas refining, and fossil fuel based power generation. It reflects the share of portfolio exposure linked to fossil fuel extraction, production, refining and fossil fuel energy generation.

The portfolio's green revenue exposure is 7.50%, representing the proportion of investee company revenues attributable to environmentally-beneficial products and services. This metric aggregates revenue from activities such as alternative energy, energy efficiency, green building, pollution prevention, sustainable agriculture and sustainable water solutions. It reflects companies' revenues from products or services that deliver positive environmental impact by improving environmental outcomes, reducing adverse environmental effects, supporting environmentally focused UN Sustainable Development Goals, or enabling technologies that facilitate the aforementioned improvements.

Overall, emissions intensity has increased compared to the previous year. This reflects an expansion in coverage to include an emerging market debt mandate, which, by nature of the asset class, carries higher reported emissions, as well as the divestment from a low-emission equity mandate. A search for a replacement mandate is currently underway, with responsible investment and climate considerations forming key criteria in the selection process. These movements primarily reflect changes in portfolio composition and coverage rather than a deterioration in the emissions performance of underlying holdings. By contrast, the proportion of AUM invested in companies with GHG reduction targets and science-based targets has increased relative to the prior year. The portfolio's implied temperature rise has also improved year on year, declining from 2.74°C to 2.20°C.

Nature-related metrics: Listed equity and corporate fixed income

Nature and biodiversity data remains at an early stage of development, with current methodologies covering only a limited proportion of our corporate assets. To support transparency and appropriate interpretation, the Trustee discloses the covered AUM for each metric alongside either the percentage of AUM or the number of companies to which the metric applies, calculated within the covered AUM.

While data quality and coverage remain imperfect, the Trustee considers nature-related risks and dependencies to be a strategically important sustainability theme. The disclosure of these metrics represents an initial step towards more comprehensive and standardised nature-related reporting as data availability and methodologies continue to evolve.

The metrics below are currently reported for the DB portfolio's listed equity and corporate fixed income holdings, based on data provided by TPTIM, with underlying data sourced from MSCI and ISS STOXX.

Deforestation		Covered AUM	Impacted AUM
Potential direct contribution to deforestation	Percentage of AUM linked to companies that produce commodities that contribute to deforestation (palm oil, soy, beef, and timber), and/or that are classified as operating in a high-risk area and/or that have been involved in controversies linked to deforestation.	£1.39bn	4.33%
Operation in deforestation fronts	Percentage of AUM linked to companies with three or more known physical assets in areas with a significant concentration of deforestation and where large areas of remaining forests are under threat.	£1.25bn	12.26%

Biodiversity		Covered AUM	No. of companies
Companies negatively affecting biodiversity sensitive areas	Companies directly involved in controversies which negatively affect biodiversity-sensitive areas and where remedial measures have not been implemented.	1.43bn	3
Controversies affecting threatened species	Companies involved in controversies which affect International Union for the Conservation of Nature (IUCN) Red List species.	1.43bn	9

Resource depletion		Covered AUM	No. of companies
Lack of water management policies	Companies that lack sufficient policies or practices to manage water related risks. The assessment is based on factors such as exposure to water stressed regions, freshwater use reduction targets and action plans.	801.6m	423

Potentially Disappeared Fraction (PDF) of species		Covered AUM	PDF.km 2.yr / $M
PDF	PDF quantifies the potential loss of species richness due to adverse environmental pressures, relative to species richness in undisturbed ecosystems, often referred to as the pristine state. Species richness refers to the number of unique species in an area. PDF is defined over both area (m2, or km2) and time (year).	1.35bn	26.51

TCFD climate metrics: real estate

Covered AUM		£345.3m
Absolute emissions (tCO_2e)	Scope 1 and 2	5,994
	Scope 3	13,509
	Total	19,504
Emissions intensity ($kgCO_2e/m2$)	Scope 1 and 2	0.015
Data quality score 1 (highest quality) - 5 (lowest quality)		2.12
ITR (°C)		1.5

About these metrics

As at 30 September 2025, total reported emissions associated with the DB real estate portfolio amount to 19,504 tCO_2e, comprising 5,994 tCO_2e from Scope 1 and Scope 2 emissions and 13,509 tCO_2e from Scope 3 emissions.

The portfolio's carbon intensity for Scope 1 and Scope 2 emissions is 0.015 $kgCO_2e/m^2$. Real estate emissions intensity is measured relative to floor area, enabling more meaningful comparison across assets and over time by reflecting operational efficiency rather than portfolio value movements.

Data quality for the portfolio is assessed at 2.12 on a PCAF-aligned scale, indicating that the majority of emissions data is based on reported or asset-level information, supplemented by estimation where direct data is not yet available.

The portfolio's ITR is estimated at 1.5°C, indicating a relatively strong level of alignment with global temperature goals compared with many other asset classes, reflecting both the operational characteristics of underlying assets and ongoing asset-level energy efficiency and decarbonisation initiatives.

TCFD climate metrics: infrastructure

Covered AUM		£526.4m
Absolute emissions (tCO_2e)	Scope 1	76.04bn
	Scope 2	4.76bn
	Scope 3	257.72bn
Emissions intensity (tCO_2e/£m invested)	Scope 1	144.45
	Scope 2	9.05
	Scope 3	489.56
% AUM	Net zero targets	77.42%
	SBTi targets	35.83%

About these metrics

As at 30 September 2025, financed emissions associated with the DB infrastructure portfolio amount to 80.80bn tCO_2e for Scope 1 and Scope 2, with an emissions intensity of 153.50 tCO_2e/£m invested. Infrastructure assets typically have higher Scope 1 emissions intensity than listed assets, reflecting the operational nature of underlying investments. Scope 3 emissions contribute a significant proportion of total financed emissions, totalling 257.72bn tCO_2e with an emissions intensity of 489.56 tCO_2e/£m invested. These metrics are calculated across £526.44m of covered assets.

In terms of transition alignment, 77.42% of AUM is invested in infrastructure assets with net zero targets, while 35.83% has committed to science-based targets. These indicators provide insight into the extent to which infrastructure holdings are positioned to support the transition to a lower-carbon economy.

TCFD climate metrics: LDI

Scope 1 and 2			
Market value (MV) of long-only exposure		Funded gilts only	£2116m
		Gilts on repo and/or TRS	£3700m
		Combined gilt exposure	£5816m
Absolute emissions (tCO_2e)	Footprint*MV	Funded gilts only	335,647
		Gilts on repo and/or TRS	586,906
		Combined gilt exposure	922,553
	WACI*MV	Funded gilts only	273,341
		Gilts on repo and/or TRS	477,959
		Combined gilt exposure	751,300
Emissions intensity (tCO_2e /£m invested)			158.6
Weighted average carbon intensity (WACI) (tCO_2e/GK$ GDP)			86.6

About these metrics

The LDI metrics have been produced by the LDI manager, Insight Investment, using the following assumptions:

- Annual UK GHG emissions data (Scope 1 and 2) for 2024, published as a provisional figure by the UK government, of 371.0m tCO_2e.
- Total UK government debt at 30 September 2025 is based on the market value of gilts in issuance of £2,338,876m, including green gilts.
- Purchasing-power-parity (PPP) adjusted GDP, published by the IMF, is used for certain metrics to ensure consistency across all sovereigns, of GK$4,286,574m.
- Gilts posted out as collateral are included in gilt valuations; gilts received as collateral are excluded.
- Derivatives, cash and short gilt positions have been excluded.
- Carbon values include land use, land-use change and forestry (LULUCF).
- Total LDI data quality is 100% reported and unverified by a third party.

Assessing the climate impact of sovereign assets in LDI portfolios is complex, primarily due to the risk of double-counting emissions. National greenhouse-gas inventories combine government, corporate and household emissions, making it difficult to isolate emissions attributable solely to sovereign activity. International conventions also assign emissions responsibility to exporting countries, which can distort national climate profiles.

These factors should be considered when interpreting the LDI climate metrics.

Defined Contribution – Metrics as at September 2025

TCFD climate metrics: listed equity and corporate fixed income

Covered Assets Under Management (AUM)[6]		£4.01bn
Absolute emissions (tCO_2e)	Scope 1	84.40bn
	Scope 2	29.82bn
	Scope 3	1.23tn
Emissions intensity (tCO_2e/£m invested)	Scope 1	21.03
	Scope 2	7.43
	Scope 3	360.28
Data quality score 1 (highest quality) - 5 (lowest quality)	Scope 1	2: 84.34% 3: 0.46% 4: 15.20%
	Scope 2	2: 82.09% 4: 17.91%
	Scope 3	2: 70.91% 4: 29.09%
ITR (°C)		2.6

Note: Percentages may not sum to 100% due to data gaps.

About these metrics

As at 30 September 2025, financed emissions associated with the DC portfolio's listed equity and corporate fixed income holdings amount to 114.22bn tCO_2e for Scope 1 and Scope 2, with a combined emissions intensity of 28.46 tCO_2e/£m invested. Scope 3 emissions total 1.23tn tCO_2e with an emissions intensity of 360.28 tCO_2e/£m invested. Data quality is strongest for Scope 1 and 2 emissions, while Scope 3 estimates rely more heavily on modelled data. The portfolio's ITR is 2.57°C.

Overall, emissions intensity for Scope 1 and Scope 2 has decreased slightly year-on-year, indicating a modest improvement in the portfolio's carbon efficiency. The proportion of AUM invested in companies with science-based targets has increased relative to the prior year, indicating continued progress in transition alignment.

[6] AUM for which absolute emissions are measured based on data availability for Scope 1 and 2 emissions. Coverage for absolute emissions across Scopes 1, 2 and 3 is slightly lower, at £3.42bn.

Key findings for 2024/25

- **The Trustee met its 2025 interim climate target**

  The DB and DC portfolios have achieved a reduction in emissions intensity of at least 25% relative to the 2019 baseline, meeting the Trustee's first interim objective under its net zero pathway.

- **Forward-looking climate alignment has strengthened**

  Across listed equity and corporate fixed income, the proportion of assets invested in companies with GHG reduction targets and science-based targets has increased year on year. For the DB portfolio, the implied temperature rise improved from 2.74°C to 2.20°C, indicating stronger alignment with global decarbonisation pathways.

- **Emissions metrics reflect portfolio composition and expanded coverage**

  Reported emissions intensity increased for the DB listed equity and corporate fixed income portfolio during the year, driven primarily by changes in portfolio composition, including the addition of emerging market debt exposures and the divestment from a low-emission equity mandate. These movements primarily reflect coverage and composition effects rather than a deterioration in the emissions performance of underlying assets.

- **The Trustee has continued to strengthen the scope and maturity of disclosures**

  For this reporting year, climate metrics were extended to include LDI for the first time, alongside the introduction of nature-related indicators for selected asset classes. These developments represent a step change in the breadth and depth of the Trustee's climate-related reporting.

Progress against targets

The Trustee remains committed to its long-term ambition to achieve a net zero emissions investment portfolio by 2050. This objective is supported by interim targets designed to guide progress over time. As noted above, the first interim target – to reduce emissions intensity by at least 25% by 2025 relative to the 2019 baseline – has now been met. The next interim target, to reduce emissions intensity by 50% by 2030, continues to apply.

These targets currently cover listed equity, corporate fixed income and real estate assets, where data quality and coverage are sufficiently robust to support credible target setting.

Table 7 presents the carbon intensity of the portfolio across both DB and DC schemes, covering listed equity, corporate fixed income and real estate. The data shows a material reduction in the carbon intensity of listed equity and corporate fixed income holdings between 2019 and 2022, followed by a more variable pattern of change in subsequent years. In particular, the DB listed equity and corporate fixed income portfolio experienced a notable increase in emissions intensity during the current reporting period. As outlined above, this reflects changes in portfolio composition, including the addition of emerging market debt exposures and the divestment from a low-emission equity mandate.

Table 7. Carbon intensity comparison (scopes 1 and 2)

	2019	2022	2023	2024	2025
DB – Listed equity and corporate fixed income	88.4	24.1	26.9	29.6	41.0
DC – Listed equity and corporate fixed income	101.7	39.9	47.9	35.8	28.5
	2019	**2021**	**2022**	**2023**	**2024**
DB – Real estate	0.3	0.3	0.3	0.4	0.015*
DB – real estate (CRREM basis)	0.039*	–	–	–	0.015*

*Real estate carbon intensity from 2025 reflects a change in data provider to ISS and adoption of the CRREM Whole Building methodology (Scope 1 and 2 plus relevant tenant emissions). A retrospective 2019 figure has been produced for comparability.

Figure 5. DB – listed equity and corporate fixed income: carbon intensity vs. targets

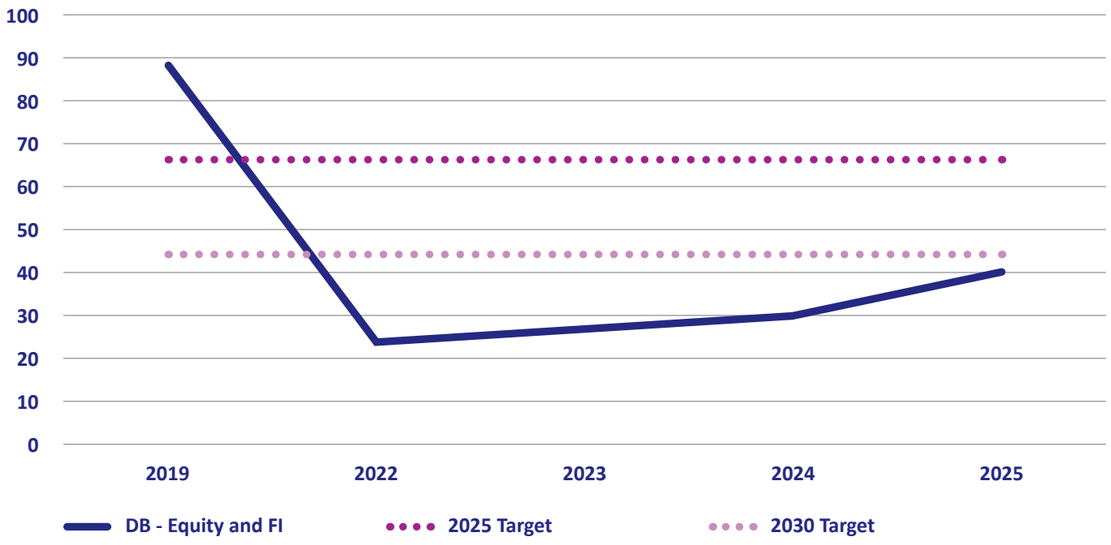
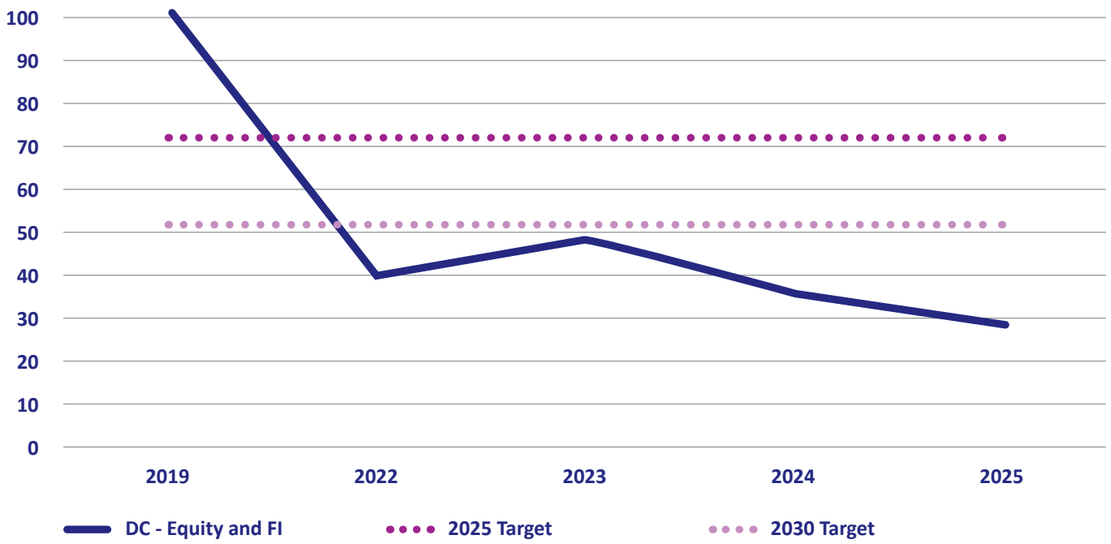


Figure 6. DC – listed equity and corporate fixed income: carbon intensity vs. targets



In relation to real estate, the reported reduction in carbon intensity compared with previous years primarily reflects a change in data provider and underlying methodology rather than a material shift in the emissions profile of the underlying assets. During the reporting year, the Trustee appointed ISS as its real estate climate data provider, which applies the Carbon Risk Real Estate Monitor (CRREM) Whole Building approach.

This methodology measures emissions on a whole-building basis, incorporating Scope 1 and Scope 2 emissions together with relevant downstream tenant energy use. Differences in methodological approach and data assumptions with the previous provider explain a significant proportion of the observed year-on-year movement in reported intensity.

To support comparability over time, it was requested that ISS apply the CRREM Whole Building methodology to the 2019 baseline portfolio. On a consistent methodological basis, the carbon intensity of the real estate portfolio at the 2019 baseline was estimated at 0.039 $kgCO_2e/m^2$. This indicates that emissions intensity has decreased relative to the 2019 baseline even when assessed on a consistent basis.

The Trustee will continue to monitor developments in real estate carbon measurement methodologies and seek to maintain consistency in reporting where possible, while prioritising improved data quality, asset-level coverage and alignment with emerging best practice.

As noted in previous reporting, the pace and profile of decarbonisation vary across asset classes and over time. Changes in carbon intensity may be influenced by market movements, shifts in company-level emissions, improvements in data availability and methodological refinements, as well as changes in portfolio composition.

The Trustee recognises that progress towards net zero is unlikely to be linear. Short-term increases or periods of volatility in emissions intensity are an expected feature of the transition and reflect the complexity of real-world decarbonisation, evolving emissions-measurement methodologies and the impact of investment decisions taken over time.

Consistent with the Trustee's long-term investment philosophy, the climate transition approach prioritises real-world decarbonisation over purely portfolio-based outcomes. The Trustee therefore continues to invest in, and engage with, companies at different stages of their transition journey, even where this may temporarily increase financed emissions as capital is deployed to support credible transition plans. Portfolio-level emissions metrics are accordingly considered as one input within a broader assessment of climate progress.

To ensure a balanced and comprehensive view of performance, the Trustee monitors progress towards net zero using a combination of quantitative metrics – including absolute emissions, emissions intensity and portfolio-alignment indicators – alongside qualitative assessments, insights from climate scenario analysis, evidence from stewardship activity and escalation, and manager-level reporting on engagement outcomes.

Looking ahead, the Trustee will review its climate-related objectives as part of a wider climate strategy review. This work will focus on ensuring that future targets remain credible, proportionate and aligned with supporting real-economy decarbonisation, while continuing to meet fiduciary duties and deliver long-term value for members.

Glossary

Term	Acronym	Definition
Defined Benefit	DB	A Defined Benefit pension scheme is one where the amount you are paid is based on how many years you have been a member of the employer's scheme and the salary you have earned when you leave or retire. They pay out a secure income for life, which increases each year in line with inflation.
Defined Contribution	DC	Defined contribution pension schemes are occupational pension schemes where your contributions and your employer's contributions are invested and the proceeds used to buy a pension and/or other benefits at retirement.
Department of Work and Pensions	DWP	The Department for Work and Pensions is responsible for welfare, pensions and child maintenance policy in the UK.
Environmental, social and governance	ESG	The incorporation of environmental, social and governance issues into investment analysis and decision-making processes.
Greenhouse gases	GHG	Gases that trap heat in the atmosphere.
Institutional Investors Group on Climate Change	IIGCC	A leading European investor network focused on climate change, representing asset owners and managers committed to aligning investment practices with net zero goals.
Investor Policy Dialogue on Deforestation	IPDD	A global investor initiative that engages with governments and public institutions to address deforestation and promote sustainable land use policies. IPDD aims to reduce investment risks associated with deforestation and biodiversity loss by advocating for stronger regulatory frameworks and improved transparency.
Implied temperature rise	ITR	Measures temperature alignment based on the cumulative emissions of the investment portfolio with global temperature goals in degrees Celsius.
Liability-Driven Investment	LDI	Aims to reduce the risk that a pension scheme's assets do not move in line with the value of its long-term liabilities. LDI portfolios typically invest in government bonds (gilts), interest-rate and inflation-linked instruments, and related derivatives to manage interest-rate and inflation risks. LDI helps DB schemes stabilise funding positions by ensuring that changes in the value of liabilities are more closely matched by changes in the value of the assets held to meet those liabilities.
Net Zero Investment Framework	NZIF	Provides a common set of recommended actions, metrics and methodologies through which investors can maximise their contribution to achieving global net zero emissions by 2050 or sooner.
Paris Aligned Asset Owners	PAAO	A collaborative investor-led global forum enabling investors to align their portfolios and activities to the goals of the Paris Agreement.

Term	Acronym	Definition
Partnership for Carbon Accounting Financials	PCAF	PCAF is a global partnership of financial institutions that work together to develop and implement a harmonised approach to assessing and disclosing the GHG emissions associated with their loans and investments.
Principles for Responsible Investment	PRI	A UN-supported network of investors committed to integrating ESG factors into investment decisions. The PRI provides a framework for responsible investment through six voluntary principles, supporting investors in managing ESG risks and contributing to a more sustainable global financial system.
Responsible investment	RI	Responsible investment involves considering ESG issues when making investment decisions and influencing companies or assets (known as active ownership or stewardship). It complements traditional financial analysis and portfolio construction techniques.
Science Based Targets initiative	SBTi	A global initiative that enables companies and financial institutions to set greenhouse gas emissions reduction targets aligned with climate science and the goals of the Paris Agreement. The SBTi develops methodologies and validation frameworks to assess whether organisations' targets are consistent with limiting global temperature rise to well below 2°C and pursuing efforts to limit warming to 1.5°C.
Task Force on Climate-Related Financial Disclosures	TCFD	A reporting framework that helps organisations disclose climate-related financial risks and opportunities.

Appendix

Climate scenario analysis

1. Climate scenarios

Net Zero

In the Net Zero scenario, global CO_2 emissions reach net zero by 2055, and global average temperatures stabilize close to 1.6°C above pre-industrial levels by 2100. This scenario explores the risks and opportunities of an optimistic, ambitious but orderly transition to net zero by 2055. An ambitious set of policies aimed at reducing emissions is introduced. These policies include global carbon pricing and energy taxation, a phase-out of coal and fossil fuel technologies, energy efficiency regulations, and subsidies for renewable energy, electric vehicles, afforestation and reforestation. New power generation technologies, including hydrogen and carbon capture and storage (CCS) are assumed to be viable and there is significant adoption of afforestation and reforestation activities to offset hard-to-abate emissions. The world experiences comparably low impacts from acute physical risk (extreme weather events) and chronic physical risk (gradual warming) as the world adapts to the effects of climate change. The financial market implications arising from transition and physical risks are not materially disruptive.

Delayed Net Zero

In the Delayed Net Zero scenario, policy change is delayed until 2030 when ambition increases and the feasibility and competitiveness of low-carbon technology means that emissions reach net zero later in the century. These include global carbon pricing and energy taxation, a phase-out of coal and fossil fuel technologies, energy efficiency regulations, and subsidies for renewable energy and electric vehicles. These policies are not implemented on the scale that is required to reach net zero emissions by 2050. This scenario results in emissions trending towards net zero after 2050 and global average temperatures stabilizing at 2°C above pre-industrial levels by 2100. This scenario reflects rapid power generation technology developments, with considerable progress in the development of CCS technologies. The world is faced with moderate impacts from extreme weather events and temperature change. Financial market disruption arising from transition risks occurs in 2030. This scenario explores increased policy action and technological developments that drive a transition which reduces severe physical risk impacts.

Limited Action

In the Limited Action scenario, global average temperatures are 1.8°C warmer than pre-industrial levels by 2050 and 2.9°C warmer by 2100. Policymakers take moderate steps to address climate change but commitments and Nationally Determined Contributions (NDCs) made under the Paris Agreement are not fully met and adjusted for credibility. Only existing carbon markets continue, including the EU Emissions Trading System (ETS), with an assumed moderate increase in the carbon price. Regulation and taxation of fossil fuel-based technologies is limited. There is progressive adoption of low-carbon technologies, such as electric vehicles, driven by factors including cost reduction and efficiency improvements. This scenario reflects high risks from extreme weather events and high temperatures. These risks have material financial market implications in the 2030s. This scenario explores a limited transition, with high exposure to physical risk.

High Warming

In the High Warming scenario, the global average temperature is around 2°C warmer than pre-industrial levels by 2050 and 3.7°C warmer by 2100. This scenario explores the risks of a failed transition leading to very severe physical risks. There are no new low-carbon policies enacted in this scenario and some existing ones are scaled back. Multiple climate tipping points are reached and many countries suffer from extreme drought and water shortages. The higher average temperatures affect human health and damage crop yields, driving a reduction in labour and agricultural productivity. In addition, infrastructure damage from extreme weather events leads to direct losses and indirect effects to the economy via supply chain disruption. The triggering of multiple climate tipping points drives an exponential increase in extreme weather events. The lost productivity and extreme weather events have large financial market implications in 2030 and 2039 when future risks are priced in.

2. Climate scenario methodology, assumptions and limitations

The climate scenarios developed by Ortec Finance are plausible, forward-looking representations of different climate transition pathways, including both successful and delayed or failed transitions. The scenarios are underpinned by an integrated, science-based modelling framework developed in partnership with Cambridge Econometrics.

The scenarios incorporate a broad range of transition, physical and market risk drivers and can be applied across sectors, geographies and time horizons. They are widely used by financial institutions to assess climate-related financial risks and opportunities and to support regulatory and stakeholder reporting in line with TCFD and ISSB standards.

Assumptions

Scenario results are presented as deviations from a baseline scenario. Interpreting the outputs therefore requires an understanding of the assumptions underpinning this baseline.

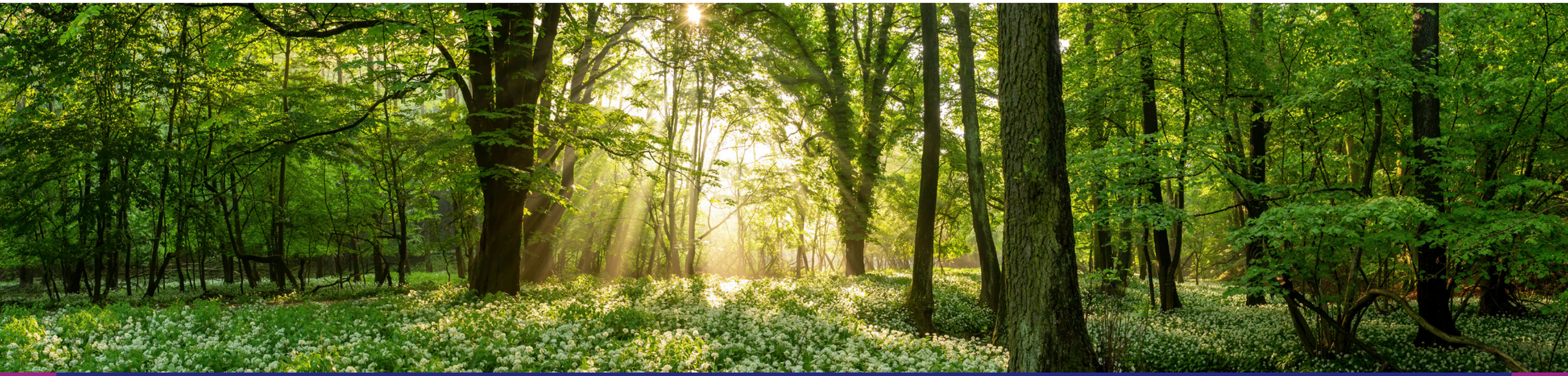
For this analysis, a deterministic version of the Ortec Finance Scenario Set (OFS) is used as the baseline. The OFS reflects Ortec Finance's internal "house view", calibrated using its economic models, expertise and the best available information. The central probability-weighted outcome of the OFS is broadly aligned with publicly available reference scenarios corresponding to a 2-3°C global warming range, as set out in Ortec Finance's whitepaper "Integrating economic and climate scenarios".

The climate scenarios applied in this analysis are constructed as deviations from this baseline. The baseline therefore acts as a necessary "linking pin" between the stochastic economic scenarios generated by the OFS and the deterministic climate scenarios. The selected baseline scenario is informed by the transition pathway and impacts of Ortec Finance's in-house Limited Action scenario, with physical risk impacts assessed using methodologies consistent with publicly available reference scenarios, including those developed by the Network for Greening the Financial System (NGFS). This baseline is referred to as the "reference baseline".

Limitations

As with all modelling approaches, climate scenario analysis involves simplifications of complex real-world dynamics. The key limitations of the Ortec Finance Climate Scenarios are summarised below. Addressing these limitations remains an ongoing focus of model development and enhancement.

Transition risk	Physical risk	Market risk
– Only a single transition pathway is modelled for each temperature outcome; results are therefore dependent on the underlying narrative. – Technologies for which data are insufficient or that do not yet exist are not captured. – Behavioural changes, such as shifts in consumption patterns (e.g. dietary change) or broader economic system transformations (e.g. circular economy adoption), are not explicitly modelled. – The econometric framework assumes that historical relationships between economic and financial variables continue to hold in the future.	– Chronic physical risks are modelled using damage-function proxies derived from academic literature. – The economic and financial impacts of climate-related health outcomes, biodiversity loss, geopolitical conflict and migration are only implicitly captured. – Tipping points in higher-warming scenarios are reflected through their impact on temperature pathways and incorporated into damage functions. This simplifies reality, as tipping points may affect physical risks through additional channels and could also occur in lower-warming scenarios.	– The timing and severity of market repricing events, such as sentiment shocks or the pricing-in of transition and physical risks, are based on assumptions and are inherently uncertain. – Climate-related health impacts, geopolitical conflict and migration are not explicitly modelled within market risk channels.



Appendix continued

3. Impact rating thresholds (DB and DC)

Climate scenario modelling produces quantitative outputs expressed as annualised deviations in expected returns relative to the reference baseline. To support interpretation and comparability across scenarios, these quantitative outputs have been translated into qualitative impact categories. A single, consistent rating framework has been applied across both DB and DC.

Annualised deviation (p.a.)	Impact rating
Greater than +0.90%	Very strong positive
+0.50% to +0.90%	Strong positive
+0.15% to +0.50%	Moderate positive
+0.02% to +0.15%	Slight positive
-0.02% to +0.02%	No significant impact
-0.02% to-0.15%	Slight negative
-0.15% to-0.50%	Moderate negative
-0.50% to-0.90%	Strong negative
Less than-0.90%	Very strong negative

4. Scheme grouping climate scenario analysis (DB)

While climate modelling was performed at individual scheme level, given the high number of schemes in scope, results are presented here on a grouped basis according to structural characteristics.

Schemes were grouped according to:

Covenant strength
– High Risk
– Low Risk

Maturity profile
– Immature
– Mature

Results are shown as percentage differences in projected asset values relative to the reference baseline. They were assessed on the Trustee's long-term funding basis (LTFT).

Table 8. Year 10: Asset impact vs. baseline

Cohort	Net Zero	Delayed Net Zero	Limited Action	High Warming
All schemes	0.38%	-2.50%	-2.21%	-3.37%
High Risk Covenant	0.27%	-1.74%	-1.65%	-2.76%
Low Risk Covenant	0.40%	-2.58%	-2.27%	-3.44%
Immature	0.36%	-2.21%	-1.96%	-3.15%
Mature	0.40%	-2.69%	-2.37%	-3.52%
High Risk & Immature	0.29%	-1.79%	-1.66%	-2.85%
High Risk & Mature	0.20%	-1.64%	-1.60%	-2.55%
Low Risk & Immature	0.38%	-2.32%	-2.05%	-3.24%
Low Risk & Mature	0.41%	-2.71%	-2.39%	-3.54%

Table 9. Year 20: Asset impact vs. baseline

Cohort	Net Zero	Delayed Net Zero	Limited Action	High Warming
All schemes	0.55%	-5.53%	-8.92%	-13.08%
High Risk Covenant	0.47%	-4.88%	-9.08%	-13.84%
Low Risk Covenant	0.56%	-5.59%	-8.93%	-13.04%
Immature	0.62%	-5.56%	-9.19%	-13.78%
Mature	0.51%	-5.51%	-8.77%	-12.71%
High Risk & Immature	0.59%	-5.47%	-9.84%	-15.17%
High Risk & Mature	0.25%	-3.83%	-7.74%	-11.50%
Low Risk & Immature	0.67%	-5.73%	-9.26%	-13.79%
Low Risk & Mature	0.52%	-5.54%	-8.79%	-12.73%

Table 10. Year 40: Asset impact vs. baseline

Cohort	Net Zero	Delayed Net Zero	Limited Action	High Warming
All schemes	2.17%	-15.93%	-26.81%	-40.08%
High Risk Covenant	2.66%	-18.92%	-37.82%	-58.50%
Low Risk Covenant	2.16%	-15.87%	-26.42%	-39.38%
Immature	2.81%	-18.71%	-32.25%	-48.92%
Mature	1.92%	-14.87%	-24.73%	-36.69%
High Risk & Immature	3.29%	-21.34%	-41.22%	-64.64%
High Risk & Mature	1.96%	-16.25%	-34.06%	-51.70%
Low Risk & Immature	3.08%	-19.80%	-33.30%	-50.32%
Low Risk & Mature	1.92%	-14.83%	-24.59%	-36.47%

Get in touch

If you would like to contact us about this report, please feel free to, via:

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