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Pension
Fund

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Derbyshire Pension Fund Climate-Related Disclosures January 2023

Report prepared in alignment with the recommendations of
the Taskforce on Climate-related Financial Disclosures

Report prepared in collaboration with LGPS Central Limited

Glossary of Terms and Abbreviations

Anthropogenic

Anthropogenic in terms of climate change refers to the impact humans have had on climate change, primarily through emissions of greenhouse gases.

Financial Stability Board

The Financial Stability Board is an international body that monitors and makes recommendations about the global financial system. It was established after the G20 London summit in April 2009 as a successor to the Financial Stability Forum.

Greenhouse Gases

Greenhouse gases are gases in the Earth's atmosphere that are capable of absorbing infrared radiation and thereby trap and hold heat in the atmosphere. The main greenhouse gases are: carbon dioxide; methane; and nitrous oxide.

Scope 1 Greenhouse Gas Emissions

Scope 1 emissions are direct emissions produced by the activities of the emitter.

Scope 2 Greenhouse Gas Emissions

Scope 2 emissions are indirect emissions generated by the electricity, heat, or steam consumed and purchased by the emitter.

Scope 3 Greenhouse Gas Emissions

Scope 3 emissions are indirect emissions that are not controlled by the emitter but occur as a result of the emitters activities.

UNFCCC

The UNFCCC secretariat (UN Climate Change) is part of the United Nations and was established in 1992 when countries adopted the United Nations Framework Convention on Climate Change (UNFCCC).

Abbreviations

CO ₂	Carbon Dioxide
Committee	Pensions & Investments Committee
CH ₄	Methane
DPF or Fund	Derbyshire Pension Fund
ESG	Environmental, Social & Governance
GHG	Greenhouse Gas
IEA	International Energy Agency
IIGCC	Institutional Investors Group on Climate Change
IPCC	Intergovernmental Panel on Climate Change
LGIM	Legal & General Investment Management
LGPS	LGPS Central Limited
NDC	Nationally Determined Contribution
TCFD	Taskforce on Climate-related Financial Disclosures
WEF	World Economic Forum

Introduction to the TCFD

The Taskforce on Climate-related Financial Disclosures (The Task Force/TCFD) was commissioned in 2015 by Mark Carney in his remit as Chair of the Financial Stability Board, in recognition of the risks caused by greenhouse gas emissions to the global economy and the impacts that are likely to be experienced across many economic sectors. The Task Force was asked to develop voluntary, consistent climate-related financial disclosures that would be useful to investors, lenders and insurance underwriters in understanding material climate-related risks.

In 2017, the TCFD released its recommendations for improved transparency by companies, asset managers, asset owners, banks, and insurance companies with respect to how climate-related risks and opportunities are being managed. Guidance was also released to support all organisations in developing disclosures consistent with the recommendations, with supplemental guidance released for specific sectors and industries, including asset owners.

In his introduction to the final TCFD report, Michael Bloomberg (TCFD Chair) noted: 'it is difficult for investors to know which companies are most at risk from climate change, which are best prepared, and which are taking action. The Task Force's report establishes recommendations for disclosing clear, comparable and consistent information about the risks and opportunities presented by climate change. Their widespread adoption will ensure that the effects of climate change become routinely considered in business and investment decisions. Adoption of these recommendations will also help companies better demonstrate responsibility and foresight in their consideration of climate issues. That will lead to smarter, more efficient allocation of capital, and help smooth the transition to a more sustainable, low carbon economy.'

The Task Force divided climate-related risks into two major categories: risks related to the transition to a lower-carbon economy; and risks related to the physical impacts of climate change. The TCFD report noted that climate-related risks and the expected transition to a lower carbon economy affect most economic sectors and industries, however, opportunities will also be created for organisations focused on climate change mitigation and adaptation solutions. The report also highlights the difficulty in estimating the exact timing and severity of the physical effects of climate change.

The Task Force structured its recommendations around four thematic areas that represent core elements of how organisations operate: governance, strategy; risk management; and metrics and targets (see Figure 1).

The Task Force updated its implementation guidance in October 2021, and these updates have been reflected in this report to the extent possible.

Figure 1: Core Elements of Recommended Climate-Related Financial Disclosures



The four overarching recommendations are supported by recommended disclosures (see Appendix 1) that build out the framework with information that will help investors/stakeholders understand how reporting organisations assess climate related risks and opportunities. The disclosures are designed to make TCFD-aligned disclosures comparable, but with sufficient flexibility to account for local circumstances.

Derbyshire Pension Fund (the Pension Fund/Fund) supports the TCFD recommendations as the optimal framework to describe and communicate the steps the Fund is taking to manage climate-related risks and incorporate climate risk management into investment processes. The Fund published its first TDFD report in March 2020, followed by a second TCFD report in November 2021. The Fund is a long-term investor, diversified across asset classes, regions and sectors. It is in the Fund's interest that the market is able to effectively price climate-related risks and that policy makers are able to address market failure. The Fund's TCFD reports note the important role that large asset owners have in influencing the organisations in which they invest to provide better climate-related financial disclosures.

As of November 2022, the Task Force had over 4,000 supporters globally. TCFD supporters now span 101 countries and jurisdictions and nearly all sectors of the economy, with a combined market capitalisation of over \$27 trillion. Disclosure that aligns with the TCFD recommendations currently represents best practice. The Fund believes TCFD-aligned disclosure from asset owners, asset managers, and corporates, is in the best interest of the Fund's stakeholders.

About this report

This is the third Climate-related Disclosures report issued by the Fund. It has been prepared in collaboration with LGPS Central Limited (LGPSC), and describes the way in which climate-related risks are currently managed by the Fund. It includes the results of climate scenario analysis and carbon risk metrics analysis undertaken on the Fund's assets as part of LGPSC's preparation of an annual Climate Risk Report for the Pension Fund.

Climate scenario analysis carried out at the asset class level estimates the effects of different climate scenarios on key financial parameters (e.g. risk and return) over a selection of time periods.

The Task Force recognised that the use of scenarios in assessing climate-related issues and their potential financial implications is relatively recent and that practices will evolve over time, but believed that such analysis is important for improving the disclosure of decision-useful, climate-related financial information. Carbon risk metrics analysis on the Fund's listed equities and investment grade corporate bond portfolios considers: portfolio carbon footprint (weighted average); financed emissions, percentage of companies with a net zero target, Transition Pathway Initiative scores, fossil fuel exposure; thermal coal exposure; and clean technology (portfolio weight in companies whose products and services include clean technology).

The challenges of measuring the potential impact of climate change on investment portfolios are well recognised. The Fund believes that a suite of carbon risk metrics and climate scenario analysis currently provides the most appropriate method of analysing climate risk to support the development of a detailed strategy for integrating climate risk into investment decisions.

The findings of the Climate Risk Report, together with the Fund's own ongoing climate research, which is structured around the TCFD's four thematic areas of governance, strategy, risk management and metrics and targets, are used to support the development of the Fund's Climate Strategy. In addition, high level climate change risk analysis from the Fund's actuary, Hymans Robertson LLP, which considers the potential effect of climate change on the Fund's liabilities as well as on the assets of the Pension Fund, is used to support the development of the Fund's Climate Strategy. Guidance on implementing the TCFD recommendations for asset owners from the TCFD and the Principles for Responsible Investment is also utilised.

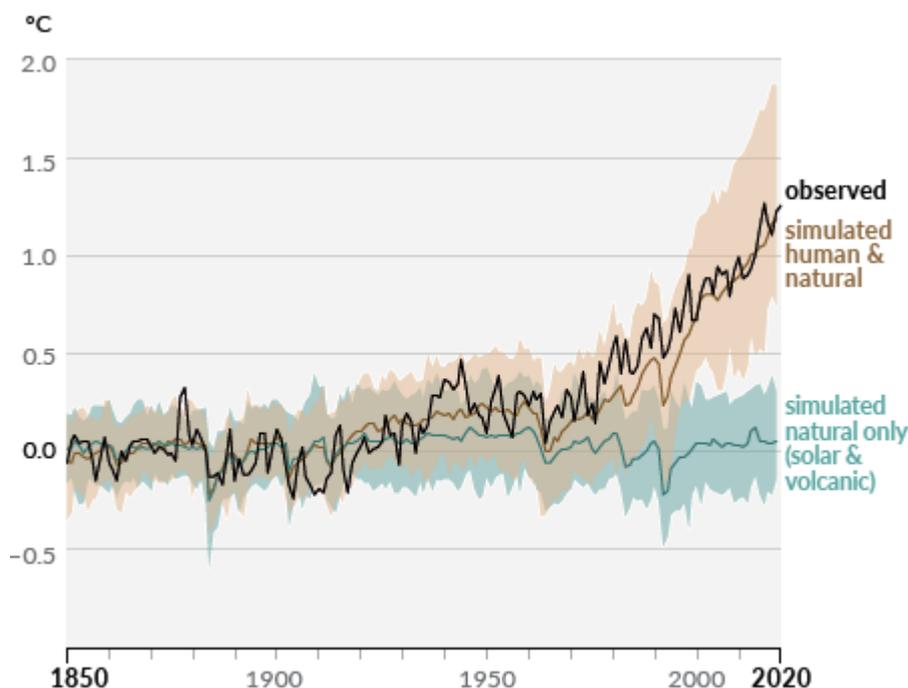
The Fund published its first TCFD report in March 2020, and its second TCFD report in November 2021. The Fund's climate-related disclosures are expected to develop over time and are supported by the Fund's Climate Strategy, which was approved by the Pensions and Investments Committee

(the Committee) in November 2020. The Fund’s climate-related disclosures are also included in the Pension Fund’s Annual Report.

Climate-related risks

Human activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels. Most of this warming has occurred in the last 35 years, with the five warmest years on record taking place since 2010. In the Intergovernmental Panel on Climate Change (IPCC) Climate Change 2022 Report published in April 2022, the IPCC noted that between 2010 and 2019, the observed global mean surface temperature is 0.8°C to 1.3°C higher than the average over the 1950 to 1990 period, with a best estimate of 1.07°C. Over 97% of climate scientists (Source: NASA) agree that this trend is the result of greenhouse gas (GHG) emissions which are being trapped in the atmosphere and creating a ‘greenhouse effect’ – a warming that occurs when the atmosphere blocks heat radiating from Earth towards space. These climate scientists have observed that these climactic changes are primarily the result of human activities including electricity and heat production, agriculture and land use change, industry, and transport.

Figure 2: Change in global surface temperature (annual average) as observed and simulated using human and natural and only natural factors. Source: ICPP; Climate Change 2021 Report



The principle source of GHG emissions, particularly carbon dioxide, is the burning of fossil fuels for the production of energy¹. The second largest contributor is agriculture, forestry and other land use.

¹ British Geological Survey

During the last 250 years, atmospheric concentrations of carbon dioxide (CO₂) and methane (CH₄) have increased by 40% and 150%, respectively. The April 2022 IPCC Climate Change Report noted that the global average concentration of carbon dioxide was 410ppm compared to its pre-industrial equivalent of 280ppm.

Climate scientists believe that in order to mitigate the worst economic impacts of climate change, there should be a globally co-ordinated policy response. The majority of climate scientists anticipate that given the current level of climate action, the world will be between 2°C and 4°C warmer by 2100, with significant regional variations. This is substantially higher than the Paris Climate Change Agreement (see Figure 3 for selected extracts of the Paris Agreement), which reflects a collective goal to hold the increase in the climate's mean global surface temperature to well below 2°C above preindustrial levels and to pursue efforts to limit the temperature increase to 1.5°C.

Figure 3: Selected extracts from the Paris Agreement on climate Change. Source: UNFCCC.

Paris Agreement Article 2(1)a

Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;

Paris Agreement Article 2(1)c

Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

Paris Agreement Article 4(1)

In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.

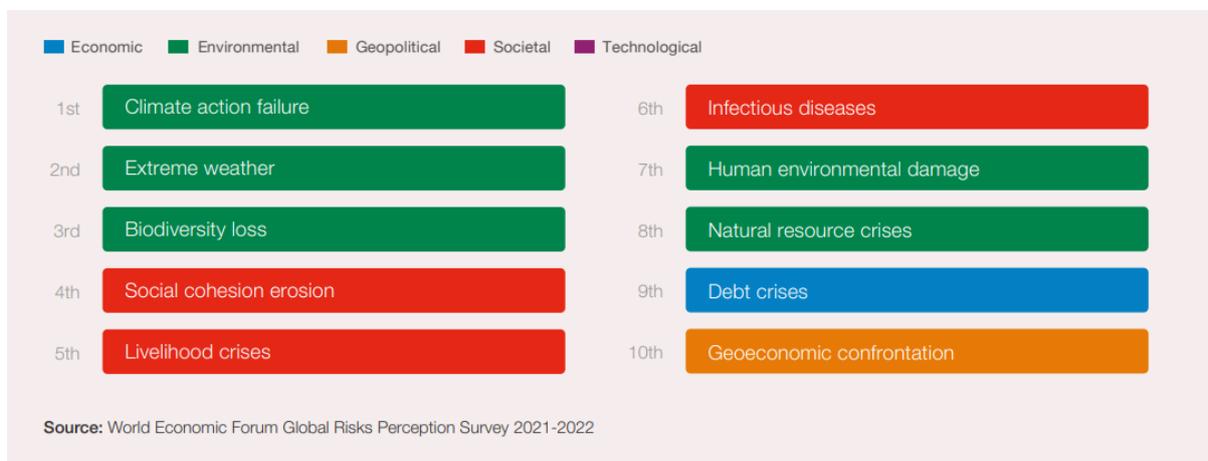
The Paris Agreement commits signatories to the establishment of Nationally Determined Contributions (NDCs), which are intended to be individually equitable and collectively sufficient to achieve Article 2(1)a. It is estimated that under current global policies (and assuming successful implementation), the world is heading towards a warming of 2.6°C by 2100, with a probability of 50%², indicating that more remains to be done to meet the ambitions of the Paris Agreement.

² Source: LGPSC

The low-carbon transition is already underway, with a number of governments and institutions around the world intensifying their climate change policies, and corporates responding in turn. One example is the UK's declaration to bring all greenhouse gas emissions to Net Zero by 2050, with a target of cutting emissions by 78% by 2035 compared to 1990 levels.

Acknowledgement of the risks posed by climate change among business and government leaders is reflected in the World Economic Forum (WEF) Global Risks Report, which illustrates the increased focus on environmental and social risks (compared with purely economic and political risks) over time. Environmental risks, particularly those associated with climate change, account for three of the five risks of global business leaders.

Figure 4: WEF Top global risks. Source: World Economic Forum; The Global Risks Report 2022



The more attention business leaders pay to managing climate risk, the greater the implications for investors. The WEF's global risks are also highly interconnected. For example, climate change potentially exposes businesses to more natural disasters, extreme weather, water shortages and biodiversity loss. These in turn may lead to involuntary migration or conflict. Taking the interconnectivity of risks into account will continue to be important for long-term investors seeking to anticipate the effects of climate change and prepare their portfolios for a changing global context.

Given its contribution to global GHG emissions, the energy sector is expected to play a significant role in the long-term decarbonisation of the economy, albeit fossil fuels are expected to continue to provide a large proportion of the global energy mix for many years to come. The behaviour of private and state-owned energy companies will be as important as the actions taken by their publicly traded counterparts. It is also important to recognise that the demand for energy, the type of energy demanded, and energy security will also play a crucial role in global decarbonisation.

However, the potential climate-related issues faced by diversified investors (such as pension funds) are not limited to the oil & gas and power generation sectors. Investors focussing exclusively on primary energy suppliers could fail to identify material climate risks in other sectors. There is considerable uncertainty in the crystallisation pathway for climate risk.

Well known concepts such as stranded assets risk are not homogeneous within certain sectors (e.g. oil & gas and power generation), and robust due diligence will be required in order to identify the potential winners and losers. The uncertainty of climate change stems from the complexity and inter-relationship of value and supply chains, the flow through of fossil fuels to by-products and services across multiple sectors and industries, the pass-through cost of carbon, policy fragmentation, and the consideration that certain companies are too big to fail. The likelihood of asset stranding depends on the commodity, the asset quality, the customer base, the rate of technology change, cost curve dynamics, mitigating strategies (e.g. company diversifying portfolio), and the ability of the market to price risk and timing thereof.

The Fund recognises that climate-related risks can be financially material and that the due consideration of climate risk falls within the scope of the Fund's fiduciary duty. Given the Fund's long-dated liabilities and the timeframe in which climate risks could materialise, a holistic approach to risk management covering all sectors and all relevant asset classes is warranted.

Governance

TCFD Recommended Disclosure

a) Describe the board's oversight of climate-related risks and opportunities

Roles and responsibilities at the Fund are clearly set out in the Fund's Governance Policy & Compliance Statement.

The Fund's Committee is responsible for approving the Fund's Investment Strategy Statement, together with the Fund's standalone Responsible Investment Framework and Climate Strategy. The committee meets six to eight times a year. The Committee also receive a quarterly stewardship report setting out the stewardship and voting activities of the Fund's largest investment managers.

The Fund's approach to managing climate risk, including the Fund's beliefs, objectives, metrics and targets is set out in detail in the Fund's Climate Strategy.

The Committee receives an annual Climate Risk Report from LGPSC and receives ongoing training in respect of responsible investment and climate related risks and opportunities.

The Fund also has an independent investment advisor, Mr Anthony Fletcher from MJ Hudson Allenbridge, who provides advice to the Committee and takes Environmental, Social and Governance (ESG) factors, including climate-related risks and opportunities, into account when making recommendations on the Fund's Strategic Asset Allocation Benchmark and on tactical asset allocations.

Derbyshire Pension Board has an oversight role in ensuring the effective and efficient governance and administration of the Fund, including securing compliance with the LGPS Regulations and any other legislation relating to the governance and administration of the Scheme.

In order to support good decision-making, the Fund applies the Myners Principles. Disclosure of the Fund's compliance against the Myners Principles is made annually in the Fund's Annual Report.

TCFD Recommended Disclosure

b) Describe management's role in assessing and managing climate-related risks and opportunities.

The Head of Pension Fund and the Investments Manager have primary day-to-day responsibility for the way in which climate-related investment risks are currently managed. As a largely externally managed fund, the implementation of much of the management of climate-related risk is delegated to portfolio managers. Each manager’s approach to ESG factors and how these are integrated into their investment process is assessed as part of the manager selection process. The Fund’s external managers are monitored on a regular basis, and a Climate Stewardship Plan has been developed.

Strategy

TCFD Recommended Disclosure

a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term.

As a diversified asset owner, the range of climate-related risks and opportunities are varied and constantly evolving. A subset of risk factors is presented in Figure 5.

Figure 5: Examples of Short, Medium & Long-Term Risks

	Short & Medium Term	Long Term
Risks	<ul style="list-style-type: none"> Carbon prices Policy change Technological change Geopolitical shocks Consumer preferences Stock selection Timing 	<ul style="list-style-type: none"> Resource scarcity Extreme weather events Sea level rise Geopolitical shocks
Asset class	<ul style="list-style-type: none"> Listed equities Growth assets Energy-intensity industry Oil-dependent sovereign issuers Carbon-intensive corporate issuers 	<ul style="list-style-type: none"> Infrastructure Property Agriculture Commodities Insurance

Short-term risks include stock price movements resulting from increased regulation to address climate change.

Medium-term risks include technology and policy changes leading to rapid product obsolescence or changes in consumer behaviour (e.g. uptake in electric vehicles), stock selection (there will be winners and losers across all

sectors) and timing (being the first adopter does not guarantee success or better returns).

Long-term risks include stranded assets, physical damages to real assets and resource availability. An example includes the risk to coastal infrastructure assets from rising sea levels.

The Fund receives an annual Climate Risk Report from LGPSC, the findings of which, together with the Fund's own ongoing climate research, support the preparation of the Fund's Climate Strategy.

TCFD Recommended Disclosure

b) Describe the impact of climate-related risks and opportunities on the organisation's business, strategy and financial planning.

The Fund believes that diversification across asset classes, regions, and sectors is an important investment risk management tool to reduce risk. The Fund recognises that climate risk is systemic and is unlikely to be eliminated through diversification alone. As part of the last review of the Fund's Investment Strategy Statement, a 29% allocation to Global Sustainable Equities was approved. This allocation targets investments in global companies that are sustainable in financial, environmental, social and governance terms and, where appropriate, that are providing solutions to sustainability challenges. Furthermore, the Fund has invested in several renewable energy opportunities, and continues to assess new opportunities.

The Fund's strategic allocated weighting to the UK equity market has also been reduced from 30% in December 2016 to 12% in January 2022. This has significantly reduced the Fund's exposure to companies with fossil fuel reserves. The Fund's carbon risk metrics analysis indicates that the UK equity market has one of the highest exposures to fossil fuel reserves compared to other regional equity markets, although it should be noted that some of the largest UK companies with fossil fuel reserves are among the most progressive in terms of factoring climate risk into their long-term strategy. In each regional equity portfolio, the Fund has a lower exposure to fossil fuel reserves companies than the benchmark.

The Fund is exploring options to further embed climate-related risks and opportunities into its investment strategy.

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

Analysis has been carried out by Mercer for LGPSC to understand the extent to which the Fund's risk and return characteristics could come to be affected by a set of climate scenarios, including an estimation of the annual climate-related impact on returns. All asset classes are included in this analysis. The climate scenarios are:

- 1.5°C Rapid Transition: average temperature increase of 1.5°C by 2100 in line with the Paris Agreement. This scenario assumes sudden large-scale downward re-pricing across multiple securities in 2025. This could be driven by a change of policy or realisation that policy change is inevitable, consideration of stranded assets or expected cost. To a degree, the shock is sentiment driven and is, therefore, followed by a partial recovery across markets. The physical damages are most limited under this scenario.
- 1.6°C Orderly Transition: average temperature increase of 1.6°C by 2100. This scenario assumes political and social organisations act in a co-ordinated way to implement the recommendations of the Paris Agreement to limit global warming well below 2°C. Transition impacts do occur but are relatively muted across the broad market.
- 4°C Failed Transition: average temperature increase above 4°C by 2100. This scenario assumes the world fails to co-ordinate a transition to a low carbon economy and global warming exceeds 4°C above pre-industrial levels by 2100. Physical climate impacts cause large reductions in economic productivity and increasingly negative impacts from extreme weather events. These are reflected in re-pricing events in the late 2020s and late 2030s.

The climate scenario analysis covers the following asset allocations:

- the Fund's actual asset allocation at 31 March 2022; and
- the Fund's strategic asset allocation benchmark at 31 March 2022.

The climate scenario analysis forecasts the estimated climate related impact on returns, and does not take account of any other factors which may have an impact on investment returns including economic and market conditions; political and geopolitical events; monetary policy conditions, etc. It is also important to note that the asset allocation required to capture the upside under one scenario, may have a negative impact under an alternative scenario. For example, annual returns under a 1.5°C Rapid Transition benefit from higher

allocations to sustainable equities and sustainable infrastructure, whereas these allocations may have a negative impact under a 4°C Failed Transition because the assets will be subject to increased physical risk.

The results of the climate scenario analysis are shown below:

Figure 6: Annualised climate change impact on portfolio returns to 5, 15 and 40 years³

Climate Scenario	Timeframe	Asset Allocation 31 Mar-22	Strategic Asset Allocation Benchmark
Rapid Transition	5 years	(1.4%)	(1.3%)
	15 years	(0.4%)	(0.4%)
	40 years	(0.1%)	(0.1%)
Orderly Transition	5 years	(0.1%)	(0.1%)
	15 years	0.0%	0.0%
	40 years	0.0%	0.0%
Failed Transition	5 years	0.1%	0.1%
	15 years	(0.6%)	(0.7%)
	40 years	(1.0%)	(1.0%)

≤ -10 bps
 > -10 bps, < 10bps
 ≥ 10 bps

The climate scenario analysis forecasts the following:

- A 1.5°C Rapid Transition is forecast to have a negative impact on returns, particularly on a five-year basis, reflecting an assumption that the hastiness and uncoordinated response to a rapid transition leads to a short-term decline in asset prices. Thereafter, the forecast impact on long-term returns stabilises, albeit remaining marginally negative.
- The impact of a 1.6°C Orderly Transition is forecast to be broadly return neutral across all time horizons.
- A 4°C scenario would have a significant negative impact on long-term returns, reflecting the market wide impact of physical risks.

Over the long-term, Mercer forecast that a successful transition leads to enhanced projected returns for nearly all investors when compared to scenarios associated with higher temperature outcomes due to lower physical damage.

³ Extract from Mercer Limited’s (Mercer) report “Climate Scenario Analysis” prepared for and issued to LGPS Central Limited for the sole purpose of undertaking climate change scenario analysis for Derbyshire Pension Fund. Other third parties may not rely on this information without Mercer’s prior written permission. The findings and opinions expressed are the intellectual property of Mercer and are not intended to convey any guarantees as to the future performance of the investment strategy. Information contained herein has been obtained from a range of third-party sources. Mercer makes no representations or warranties as to the accuracy of the information and is not responsible for the data supplied by any third party.

The delivery of a successful transition will require a global and coordinated policy response and is outside the control of the Fund. However, the Fund will continue to work collaboratively with its managers and with fellow investors towards the aim of achieving a portfolio of assets with net zero carbon emissions by 2050.

Translating climate scenario analysis into an investment strategy is a challenge as: there is a wide range of plausible climate scenarios; the probability of any given scenario is hard to determine; and the best performing sectors and asset classes in a 1.5°C Rapid Transition tend to be the worst performers in a 4°C Failed Transition and vice versa. Despite the challenges, the Fund believes it is worthwhile procuring climate-related research in order to support robust decision making.

Risk Management

TCFD Recommended Disclosure

a) Describe the organisation's process for identifying and assessing climate-related risks.

The Fund seeks to identify and assesses climate-related risks at the total Fund level and at the individual asset level. Both 'top-down' and 'bottom-up' analysis has been received by the Fund from LGPSC. The Fund recognises that the tools and techniques for assessing climate-related risks in investment portfolios are an imperfect but evolving discipline. The Fund aims to use the best available information to assess climate-related threats to investment performance.

As far as possible climate risks are assessed in units of investment return, in order to compare with other investment risk factors.

As a largely externally managed pension fund, the identification and assessment of climate-related risks is also the responsibility of individual fund managers appointed by the Fund. Existing fund managers are monitored on a regular basis to review the integration of climate risks into the portfolio management, and to understand their engagement activities.

Stewardship activity is conducted with investee companies by the Fund. The Fund values the importance of shareholder voting as a stewardship tool and has retained the services of a specialist third party voting service provider. Historically the Fund executed voting activities directly but following the transition of the vast majority of its direct equity holdings into pooled products, voting is executed by the Fund's appointed fund managers (see below). The Fund has several selected stewardship partners including LGPSC, Hermes EOS, and Local Authority Pension Fund Forum (LAPFF) (see Figure 7 below).

The Fund has developed a Climate Stewardship Plan based on the results of the LGPSC Climate Risk Report in order to focus the Fund’s engagement resources.

TCFD Recommended Disclosure

b) Describe the organisation’s process for managing climate-related risks.

The Fund manages risk by prioritising those risks which it believes will have the biggest impact on the Fund. For climate-related risks, this will likely depend on analysis including climate scenario analysis and carbon risk metrics. The Fund’s approach to climate risk management is set out in detail in the Fund’s Climate Strategy.

Stewardship activities will remain an important aspect of the Fund’s approach to managing climate risk. The Fund expects all investee companies to manage material risks, including climate change, and the Fund believes that climate risk management can be meaningfully improved through focussed stewardship activities by investors.

Either through its own membership or through LGPSC’s membership, the Fund has several engagement partners that engage investee companies on climate risk.

Figure 7: The Fund’s Stewardship Partners

Organisation	Remit
	Specialist third party voting service provider. ISS’ research includes recommendations on casting votes on climate-related shareholder resolutions.
	<p>The Fund is a 1/8th owner of LGPSC.</p> <p>Climate change is one of LGPSC’s stewardship themes, with quarterly progress reporting available on the website.</p> <p>The Responsible Investment Team at LGPSC engages companies on DPF’s behalf, including via the Climate Action 100+ initiative.</p>
	Hermes EOS is engaged by LGPSC to expand the scope of the engagement programme, especially to reach non-UK companies.
	DPF is a long-standing member of the LAPFF. LAPFF conducts engagements with companies on behalf of local authority pension funds.

The Fund is currently in the process of applying to become a member of the Institutional Investors Group on Climate Change (IIGCC), a leading global membership body and the largest in Europe focussing specifically on climate change. The IIGCC has around 400 members, representing around \$60trillion of assets under management. The IIGCC's mission is to support and enable the investment community in driving significant and real progress by 2030 towards a net zero and resilient future.

The Fund recognises that outcomes of engagement are of greater importance than the volume of engagement. The outcomes of engagement activities of the Fund's stewardship partners are published on each provider's website.

The instruction of shareholder voting opportunities is an important part of climate stewardship. Following the transition of the vast majority of its direct equity holdings into pooled products, voting activity is largely carried out by external fund managers. Legal & General Investment Management (LGIM) currently manage a sizeable proportion of the Fund's assets on a passive basis. The votes in respect of these assets are cast by LGIM. LGIM has a robust approach to incorporating climate change factors in its voting decisions, including on specific climate-related shareholder resolutions. The Fund's direct US Equity portfolio is managed by an external manager, and the manager is responsible for casting the votes in line with their policies, which include specific consideration of climate change factors.

The stewardship and voting activities of the Fund's largest investment managers are reported to Committee on a quarterly basis. Furthermore, the Fund is aiming to become a signatory to the 2020 UK Stewardship Code in 2023.

Based on analysis prepared by LGPSC, the Fund has developed a Climate Stewardship Plan which, alongside the wide-scale engagement activity undertaken by LGPSC, Hermes EOS, and LAPFF, will include targeted engagement at investee companies of particular significance to the Fund's portfolio.

Figure 8: Holdings included in the Fund's forward Climate Stewardship Plan

Holding	Sector	Net Zero Target	TPI Climate Risk Management Quality	TPI Carbon Performance To 2025	TPI Carbon Performance To 2035	TPI Carbon Performance To 2050
Anglo American	Materials	✓	4	1.5°C	1.5°C	National Pledges
BP	Energy	✓	4*	Not Aligned	Not Aligned	Not Aligned
CRH	Materials	✓	4	Below 2°C	1.5°C	1.5°C
Glencore	Materials	✓	4	1.5°C	Below 2.0°C	National Pledges
Rio Tinto	Materials	✓	4	Paris Pledges	Paris Pledges	Below 2°C
Shell	Energy	✓	4	Not Aligned	National Pledges	National Pledges
TSMC	IT	✓	-	-	-	-

All of the companies on the forward Climate Stewardship plan have committed to net zero by 2050.

The Transition Pathway Initiative (TPI) is a global, asset owner led initiative which assesses companies' preparedness for the transition to a low carbon economy. The TPI Framework evaluates companies based on: 1) climate risk management quality; 2) and carbon performance.

Climate risk management quality includes an assessment of policies, strategy, risk management and targets, and results in the awarding of a quality level ranging from 0 – unaware of, or not acknowledging climate change to 4* - satisfies all management quality criteria.

Carbon performance relates to an assessment of the level of alignment with the Paris Agreement. The TPI measures each company's carbon performance against three sector pathways: 1.5°C; Below 2°C; and 3) National Pledges. Each pathway is determined by the required global carbon reduction to hit 1.5°C, 1.65°C and 2.6°C, which is the current aggregate national pledges. TPI considers regional and sectoral challenges to plot these sector pathways.

The holdings included in the Fund's forward Climate Stewardship Plan accounted for 22.7% of the Fund's Total Quoted Equity carbon footprint at 31 March 2022 on a weighted average carbon intensity basis, and 33.5% of the Fund's Total Quoted Equity financed emissions at the same date.

TCFD Recommended Disclosure

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

Both 'mainstream' risks and climate-related risks are discussed by the Pensions & Investments Committee. While specific macro-economic risks are not usually included in isolation, the Fund includes climate risk as a separate risk on the Fund's Risk Register.

Climate risk is further managed through the Fund's Climate Strategy and the Climate Stewardship Plan.

Metrics and Targets

TCFD Recommended Disclosure

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

The Fund has to date received three LGPSC Climate Risks Reports covering the carbon metrics of its listed equities and investment grade bond investments at the following dates:

- 31 July 2019 (the 2020 benchmark) (listed equities only);
- 31 March 2021; and
- 31 March 2022.

The poor availability of data in asset classes other than listed equities and investment grade bonds prevents a more complete analysis at the present time. Notwithstanding the lack of carbon metrics in respect of these other asset classes (i.e. Infrastructure; Property, Sovereign Bonds, Private Equity, etc) at the present time, a table setting out an overview of the Fund's approach to managing the climate related risks and opportunities of these other asset classes is set out later at Figure 19.

The Fund notes that several of these asset classes are naturally tilted towards lower carbon industries (e.g. Infrastructure and Private Equity) or supported by national net zero commitments (e.g. Sovereign Bonds), albeit similar to other assets, they are not immune to climate risk, particularly those with a growth tilt. The Fund notes that most of the Fund's underlying asset managers have made net zero commitments and are working towards reduced carbon emissions in line with the Paris Agreement.

Carbon risk metrics aid the Fund in assessing the potential climate-related risks to which the Fund is exposed, and identifying areas for further risk management, including company engagement and fund manager monitoring. The Fund additionally monitors stewardship data (see above).

TCFD Recommended Disclosure

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

The Fund provides below the carbon metrics of the Fund's listed equity portfolio and investment grade bond portfolio at 31 March 2022, which represented 51.3% and 6.2%, respectively, of the Fund's total investment assets at that date.

The carbon metrics comprise:

- Carbon Footprint
- Financed Emissions
- Percentage of Holdings with a Net Zero Target
- Transition Pathway Initiative Scores (listed equity only)
- Fossil Fuel Exposure
- Thermal Coal Exposure
- Exposure to Clean Technology

The carbon footprint analysis set out in this report has been calculated on a weighted average carbon intensity (WACI) basis. This method of normalising emissions is recommended by the Task Force and is calculated by working out the carbon intensity (Scope 1 & 2 Emissions / \$m Sales) for each portfolio company and calculating the weighted average by portfolio weight.

The carbon footprint analysis includes Scope 1 and 2 emissions (those emitted either directly by a company or indirectly through its procurement of electricity and steam) but does not include Scope 3 emissions (those emitted by a company's suppliers and customers). This means that for some companies the assessment of their carbon footprint could be considered an 'understatement'. Examples could include an online retailer whose logistics emissions are not included in Scope 1 or 2.

The Fund has chosen not to include Scope 3 emissions in the carbon footprint metrics for two reasons: (1) the rate of Scope 3 disclosure remains insufficient to use reliably in carbon foot-printing analysis; and (2) the inclusion of Scope 3 emissions leads to double-counting at the portfolio level. To overcome the risk of 'understating' carbon risk, the Fund additionally assesses its exposure to fossil fuel reserves (see Figure 14).

The combined carbon metrics of the Total Quoted Equity and Investment Grade Bond portfolios relative to the benchmark at 31 March 2022 are set out below.

Figure 9: Combined Total Quoted Equity & Investment Grade Bonds Carbon Metrics⁴

Carbon Metric	DPF 31 March 2022	Benchmark 31 March 2022	% Variance
Carbon Footprint	110.12	140.59	(21.7%)
Financed Emissions	199,563	n/a	n/a
% of Companies with a Net Zero Target	43.6%	45.5%	(4.2%)
Weight in Fossil Fuel Reserves	7.0%	8.0%	(12.1%)
Weight in Thermal Coal Reserves	2.5%	3.2%	(21.9%)
Weight in Clean Technology	33.2%	34.4%	(3.5%)

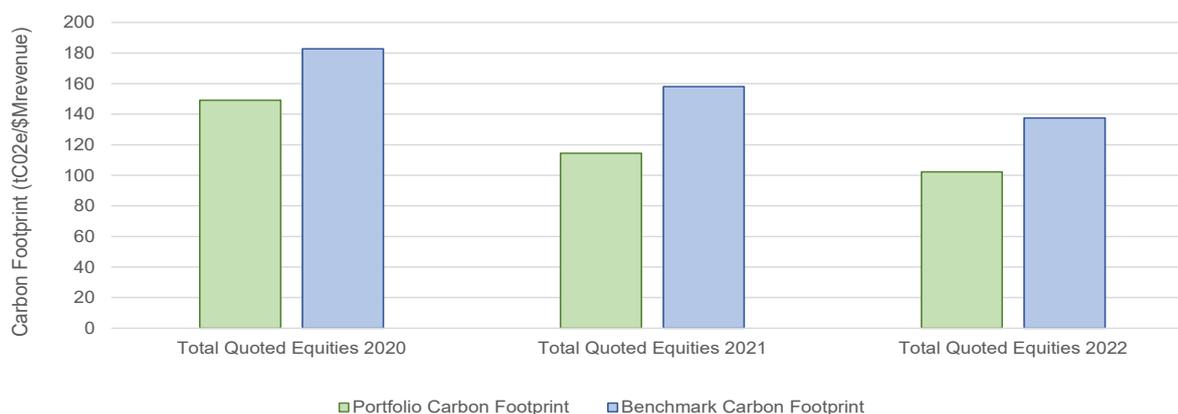
Further details in respect of both the Total Quoted Equity and Investment Grade Bond portfolios are set out below.

Total Quoted Equities

The Fund's Total Quoted Equity portfolio at 31 March 2022, which represented 51.3% of total investment assets at that date.

Figure 10 below shows that compared to the weighted Base Benchmark, the Fund's Total Quoted Equities portfolio at 31 March 2022 was around 44% less carbon intensive than the weighted Base Benchmark. This means that, on average, for every \$m of economic output companies produce, the Fund's investee companies emit 44% fewer GHG emissions than the companies in the weighted Base Benchmark.

Figure 10: Total Quoted Equity Carbon Footprint⁵



Note: The blended benchmark comprises the underlying regional benchmarks, weighted in proportion to the current GBP amount in each equity region

In addition to the reduction in the WACI carbon footprints noted above, Figure 11 below, shows the Fund's Total Equity Financed Emissions (Tonnes of Co2e per \$1m invested) at 31 July 2019 and 31 March 2022.

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Figure 11: Total Quoted Equity Financed Emissions⁶

Financed Emissions	31 March 2019	31 March 2022	% Variance
Financed Emissions	282,355	181,227	(35.8%)
of which in material sectors (1)	97.9%	98.0%	n/a

(1) The selection of companies in material sectors is based on EU taxonomy, where sectors are chosen based on two factors, high emitting macro sectors, and enabling sectors where economic activities have the potential to enable substantial greenhouse gas emissions reductions in other sectors.

Financed Emissions estimates the absolute tonnes of Co2, by each investee company, for which an investor is responsible. The Fund believes that the measure has limited usefulness for benchmarking and comparison purposes because it has no link to either portfolio size or composition.

Notwithstanding these limitations, the analysis indicates that the Fund's absolute Financed Emissions fell by 35.8% between 31 March 2019 and 31 March 2022.

It is also possible to show the proportion of the Fund's Total Equity portfolio at 31 March 2022 which relates to companies with a Net Zero Target.

Figure 12: Total Quoted Equity % of Companies with a Net Zero Target⁷

At 31 March 2022	Actual	Benchmark	% Variance
% of Companies with Net Zero Target	39.9%	42.6%	(6.3%)

The Fund's Total Equity portfolio weight in companies which have set a Net Zero Target is 39.9%, slightly lower than the benchmark of 42.6%. 65% of the Fund's Financed Emissions relate to companies with a Net Zero Target, indicating that larger emitters, and therefore the ones most in need of decarbonisation targets, have set out a net zero target. The measure does not provide any insight into how likely the companies are to meet their net zero targets.

Figure 13 below, shows the Total Quoted Equity TPI scores at 31 March 2021 and 31 March 2022.

Figure 13: Total Quoted Equity TPI Scores⁸

TPI Measure	Category	31 Mar-21	31 Mar-22
Management Quality	4*, 4	48.1%	55.0%
	3, 2	44.9%	35.3%
	1, 0	7.0%	9.7%
Paris Alignment	1.5 Degrees	0.0%	9.1%
	2 Degrees or below	41.6%	32.5%
	National Pledges	22.0%	14.8%
	Not Aligned	36.4%	43.6%

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The Fund's TPI scores have generally improved between 31 March 2021 and 31 March 2022. Since March 2021, the number of companies with a management quality score of 4 or 4* has increased by 6.9%, albeit the number of companies with a management quality score of 0 or 1 has also increased by 2.7%. In terms of Paris Alignment, the number of companies which have committed to a target aligned with a 1.5°C scenario has increased from 0.0% to 9.1%. However, the number of companies which are not aligned with the Paris Agreement has also increased from 36.4% to 43.6%, indicating that further work is required to encourage companies to commit to more ambitious decarbonisation targets.

Figure 14: Total Quoted Equity Exposure to Fossil Fuel reserves⁹

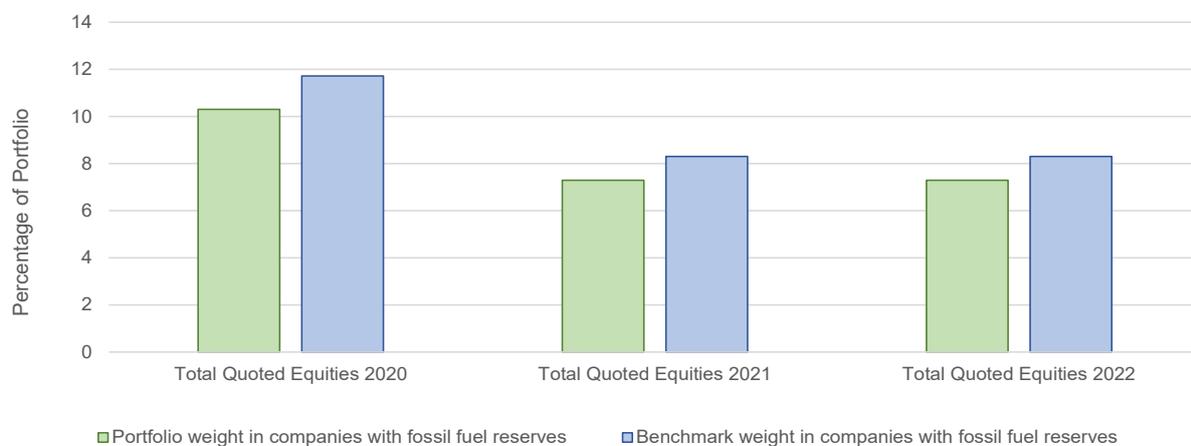


Figure 14 above shows the Fund's Total Quoted Equities portfolio at 31 March 2022 had a lower weight in companies with fossil fuel reserves than the weighted Base Benchmark (38% lower than the weighted Base Benchmark).

The full weight of a company is included in the companies with fossil future reserves measure, regardless of how much of that company's activities relate to those reserves. When apportioned by revenue, only 0.8% of the Total Quoted Equities portfolio derives revenue from fossil fuel reserves, indicating that most of companies with fossil fuel reserves are diversified businesses.

The Fund's weight in thermal coal reserves was also 21% lower than the weighted Base Benchmark (Figure 15 below). On a revenue basis, only 0.1% of the Total Quoted Equities portfolio is exposed to revenue streams attributable to thermal coal production.

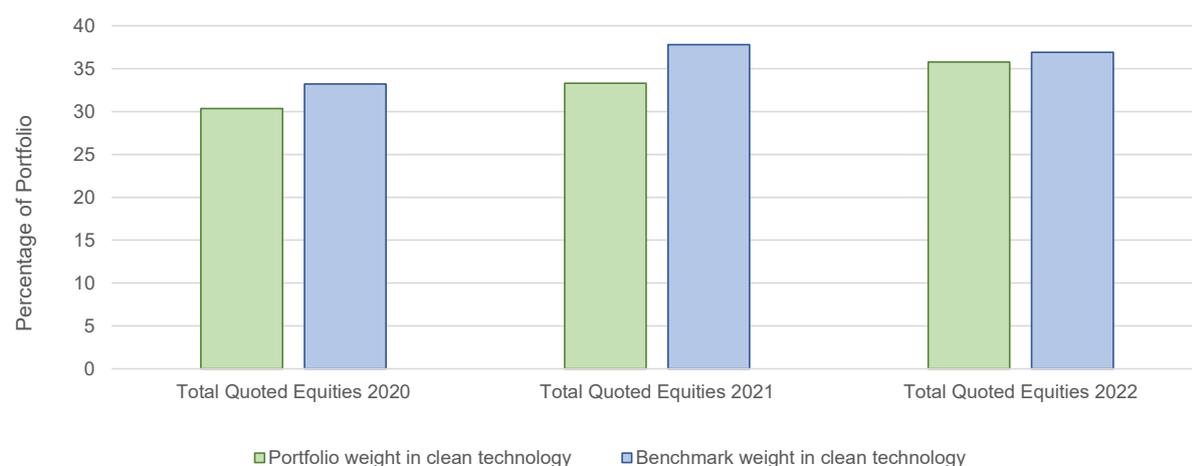
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Figure 15: Total Quoted Equity Exposure to Thermal Coal Reserves¹⁰



Figure 16 below indicates that the Fund’s Total Quoted Equities portfolio exposure to clean technology is 8% higher than the weighted Base Benchmark, albeit it is 3.0% lower than the weighted 2022 Benchmark. The Fund notes that this measure should be viewed with some caution as there appears to be a moderate positive correlation in the dataset between sectors that have a high carbon intensity (or a higher weight in fossil fuel reserves) and those that have a higher weight in clean technology. For example, the Utilities and Oil & Gas sectors have some of the highest weights in clean technology. This correlation means that it may be difficult to have a diversified portfolio that is simultaneously carbon efficient, is underweight fossil fuels, and overweight clean technology. The analysis takes no account of the Fund’s quoted and unquoted onshore & offshore, solar and hydro renewable energy infrastructure investments. These were in excess of £250m on a committed basis at 31 March 2022, equating to 4.2% of total net investment assets.

Figure 16: Exposure to Clean Technology in each regional equity portfolio¹¹



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Investment Grade Bonds

Figure 17 below sets out the carbon metrics in respect of the Fund’s investment grade bond investments at 31 March 2022, which represented 6.2% of total investment assets at that date.

Figure 17: Carbon Metrics in respect of the Fund’s Investment Grade Bond Portfolio¹²

Carbon Metric	Portfolio	Benchmark	% Variance
Carbon Footprint	217.4	177.9	22.2%
Financed Emissions	18,336	n/a	n/a
% of Companies with Net Zero Target	30.5%	27.5%	10.9%
Weight in Fossil Fuel Reserves	4.8%	4.3%	11.6%
Weight in Thermal Coal Reserves	1.77%	0.55%	221.8%
Weight in Clean Technology	11.6%	14.5%	(20.0%)

The table indicates that the Fund’s investment grade bonds portfolio is around 22% less carbon efficient than the benchmark (20% more efficient than the benchmark at 31 March 2021), together with higher weights in fossil fuel reserves and thermal coal reserves relative to the benchmark. Comparable with the total quoted equity portfolio, the weight in clean technology is lower than the benchmark.

TCFD Recommended Disclosure

c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

The Fund developed a standalone Climate Strategy which was approved by Committee in November 2020. The Fund’s approach to addressing the risks and opportunities related to climate change.

The Fund believes that portfolio-wide ‘top down’ targets are an important means to set direction and appropriate ambition for an investment strategy towards net zero, and to monitor whether that strategy is achieving expected outcomes. However, a focus on just a single top-down portfolio emissions reduction target can incentivise a shift of assets within a portfolio from high to already lower carbon assets and sectors, rather than driving additional ‘real world’ emissions reductions from increasing investments in climate solutions that contribute to the achievement of the net zero goal. As a result, the Fund will aim to:

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- Reduce the carbon footprint (Scope 1 & 2) of the Fund’s listed equity portfolio by at least 30% relative to the weighted benchmark in 2020 by the end of 2025; and
- Invest at least 30% of the Fund portfolio in low carbon & sustainable investments by the end of 2025.

The targets will be reviewed at least every three years, with the next scheduled review expected to take place in 2023, and are expected to increase in line with the stated ambition of achieving a portfolio of assets with net zero carbon emissions by 2050.

Figure 18 below, shows the progress to date in respect of the two targets.

Figure 18: DPF Climate Strategy Targets

Target	Target by end of 2025	Actual 31 March 2021	Actual 31 March 2022
Reduce the carbon footprint (Scope 1 & 2) of the Fund’s listed equity portfolio by at least 30% relative to the weighted benchmark in 2020 by the end of 2025	(30%)	(37%)	(44%)
Invest at least 30% of the Fund portfolio in low carbon & sustainable investments by the end of 2025	30%	19%	Invested: 27% Committed: 29%

The Fund expects to make continued progress in respect of the second target in 2022-23, albeit the Fund notes that as the consistency, comparability and quality of climate-related data, including the identification and measurement of companies’ Scope 3 emissions, improves, this could have a material impact on the Fund’s carbon metrics relative to the targets noted above.

The carbon metrics set out in this report relate to the Fund’s listed equity and investment grade bond investments. These accounted for 57.5% of the Fund’s total investment assets at 31 March 2022. Whilst it is not currently possible to quantify, and present, comparable carbon metrics in respect of the Fund’s other asset classes, Figure 19 below, sets out an overview of the Fund’s approach to managing the climate related risks and opportunities in respect of these assets.

Figure 19: Other Asset Classes – Approach to Managing Climate Related Risks & Opportunities

Asset Class	Asset Class Weight 31 Mar-22	Comments
Sovereign Bonds	10.2%	<ul style="list-style-type: none"> The Fund's Sovereign Bond investments relate entirely to UK or US conventional or index-linked bonds. It is not possible to measure the carbon metrics for a sovereign bond but it is possible to assess whether the borrower (i.e. the national government) has made suitable net zero commitments. Both the UK and US Governments have committed to being net zero by 2050. The Fund made its first investment in respect of the recently launched UK Government 'Green Gilt' programme in 2022. UK Green Gilts are used by the UK Government to finance expenditure in clean transportation, energy efficiency, renewable energy, pollution prevention and control, living and natural resources, and climate change adaptations. Subject to performance and debt security, the Fund expects to make further investments in green bonds moving forward.
Infrastructure	8.2%	<ul style="list-style-type: none"> The vast majority of the Fund's Infrastructure assets are in low carbon sectors such as renewable energy assets (on and offshore wind, solar and hydro, together with associated supporting infrastructure including battery storage and energy transition), critical business services, telecommunications, transportation assets (e.g. rail rolling stock, ferries, etc) and Private Public Partnerships (e.g. social infrastructure, including hospitals and schools). The Fund notes that around 37% of the Fund's committed infrastructure allocation at 31 March 2022 relates to renewable energy assets and most of the Fund's underlying infrastructure managers have made net zero commitments. For example, Macquarie Asset Management, which accounted for around 22% of the Fund's committed infrastructure allocation at 31 March 2022, has committed to investing and managing its portfolio in line with global net zero emissions by 2040. The Fund expects an increasing proportion of its Infrastructure allocation to be managed by LGPSC (the Fund's investment pooling investment management company) moving forward. LGPSC has a stated net zero ambition across its internally and externally managed portfolios by 2050 (or sooner).
Property	7.9%	<ul style="list-style-type: none"> Most the Fund's Property assets relates to a portfolio of directly owned UK commercial properties (e.g. Retail; Office; Industrial; and Alternatives). The portfolio is managed by Colliers Global Investors on a discretionary arrangement. Colliers Global Investors integrates ESG considerations, including climate related risks and opportunities, into its investment and on-going asset management process. Over 78% of the Fund's directly owned UK commercial properties have an Energy Performance Certificate (EPC) of C or above. The Fund has no directly owned UK commercial properties with an EPC of F or below.

		Colliers Global Investors is targeting that the Fund's entire directly owned UK commercial properties will have an EPC of C or above by 2027, rising to B or above by 2030.
Private Equity	4.9%	<ul style="list-style-type: none"> • The Private Equity asset class typically lends itself to low carbon high growth business such as business services, healthcare, Information Technology and Consumer Discretionary. • The typical Private Equity investment period is between four and six years and the Fund's expects its underlying investment managers to fully integrate ESG considerations, including climate related risks and opportunities, into their investment processes. • The Fund expects an increasing proportion of its Private Equity allocation to be managed by LGPSC (the Fund's investment pooling investment management company) moving forward. LGPSC has a stated net zero ambition across its internally and externally managed portfolios by 2050 (or sooner).
Cash	4.5%	<ul style="list-style-type: none"> • The Fund's Cash balance is managed through a portfolio of cash deposits in accordance with the Fund's approved Treasury Management Strategy. • The Fund's main operational bank account is with Lloyds Bank. Lloyds Bank states that it supports the transition to a low carbon economy and recognises the importance of transitioning to net zero by 2050 or sooner. Lloyds Bank has committed to achieving net zero across the activities that it finances by 2050 or sooner.
Diversified Multi-Asset Credit	4.3%	<ul style="list-style-type: none"> • The Fund's Diversified Multi-Asset Credit allocation is managed through two third party managers: CQS and Janus Henderson. The Fund expects both managers to fully integrate ESG considerations, including climate related risks and opportunities into their investment process. • CQS is a signatory to the Net Zero Asset Managers Initiative. In doing so, CQS is part of the collective goal to engage and, through investment, achieve net zero greenhouse gas emissions by 2050 or sooner. • Janus Henderson states that it believes in the spirit and goals of a net zero economy and the need for a transition to a low carbon world. • Both managers are currently in the process of designing and implementing systems which will allow them to report on the carbon metrics of their respective portfolios.
Private Debt	2.5%	<ul style="list-style-type: none"> • The Fund's Private Debt assets are currently managed by four managers. Each of these managers integrates ESG considerations, including climate related risks and opportunities, into their investment processes. Furthermore, several of the managers, actively incentivise the underlying debt borrowers to reduce carbon emission through interest rate discounts linked to carbon reduction targets. • Most of the debt funding relates to private equity transactions, which typically lends itself to low carbon high growth business such as business services, healthcare, Information Technology and Consumer Discretionary. • The Fund expects an increasing proportion of its Private Debt allocation to be managed by LGPSC (the Fund's investment pooling investment management company) moving forward. LGPSC has a stated net zero ambition across its internally and externally managed portfolios by 2050 (or sooner).

Appendix 1

TCFD Recommendations for Asset Owners

Governance

Recommended Disclosure (a) Describe the board's oversight of climate-related risks and opportunities.

Recommended Disclosure (b) Describe management's role in assessing and managing climate-related risks and opportunities.

Strategy

Recommended Disclosure (a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.

Recommended Disclosure (b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.

Recommended Disclosure (c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Risk Management

Recommended Disclosure (a) Describe the organisation's processes for identifying and assessing climate-related risks.

Recommended Disclosure (b) Describe the organisation's processes for managing climate-related risks.

Recommended Disclosure (c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.

Metrics and Targets

Recommended Disclosure (a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.

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

Recommended Disclosure (c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

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