Shropshire County Pension Fund

Climate-Related Disclosures

Report prepared in alignment with the recommendations of the Taskforce on Climate-Related Financial Disclosures (TCFD)

DECEMBER 2025

PREPARED BY LGPS CENTRAL LIMITED

LGPS Central Limited

Front Cover: Mainstone, Shropshire
Images (Clockwise): Shropshire Union Canal
Shropshire Hills
Shrewsbury, Shropshire

Contents

Key Highlights


Ludlow, Shropshire

EQUITY FINANCED EMISSIONS:

The Fund's listed equity net asset value (NAV) increased by 75.6% from 2020. This would ordinarily lead to a proportional increase in the Fund's financed emissions. However, asset allocation decisions and company-level decarbonisation have meant that the Fund's Financed emissions have decreased.

30,290 tCO_2e

↓ 34.5%
vs 2020

↓ 62.0%
vs reference index

Accounting for fluctuations in NAV, we observe an even greater decrease in normalised financed emissions.

20.9 tCO_2e/ £ million invested

↓ 64.8%
vs 2020

↓ 65.2%
vs reference index

A similar reduction is observed in the Fund's equity weighted average carbon intensity, which provides a measure of the portfolio's exposure to carbon intensive companies.

EQUITY WEIGHTED AVERAGE CARBON INTENSITY:

51.0 tCO_2e/ $m sales

↓ 64.3%
vs 2020

↓ 58.2%
vs reference index

These reductions are partially attributable to the asset allocation decisions of the Fund, notably including investments within the LGPS Central Global Sustainable Broad Fund, LGPS Central Global Sustainable Targeted Fund and the Legal and General Investment Management Solactive Developed Equity Index Fund, all of which have low normalised financed emissions and weighted average carbon intensity relative to the FTSE AW.

Introduction

This report constitutes the sixth edition of Shropshire County Pension Fund's (SCPF or 'the Fund') analysis of its approach to climate-related risks and opportunities. The report also contains a detailed analysis of the Fund's climate metrics.

The report is structured around the four pillars of the Task Force on Climate-Related Financial Disclosures (TCFD): Governance, Strategy, Risk Management, and Metrics & Targets, and serves as the Fund's TCFD compliant report. This report therefore aims to continue to provide an in-depth review of the Fund's approach to identifying, assessing, and managing climate risks and opportunities across its investments.

Shrewsbury, Shropshire

Governance

The Fund's governance of climate risk has developed significantly over recent years, as demonstrated by the graphic below.

FIGURE 1: THE FUND'S CLIMATE PROGRESS

2020

Climate Risk Report

The Fund received its first Climate Risk Report which included the results of the Metrics and Targets analysis and Climate Scenario analysis. The Fund also publishes its first TCFD Report.

2021

Climate Stewardship Plan

The Fund commits to a Climate Stewardship plan, which includes a focus list of companies that the Fund will monitor.

Climate Change Strategy

The Fund formally recognises the risks of climate change in its Climate Change Strategy. The Fund also commits to achieving net zero emissions by 2050 at the latest.

2022

Sustainable Investment Fund

The Fund invests approximately £100 million in LGPS Central's newly created Global Sustainable Equity fund, helping the Fund to make faster progress towards decarbonisation.

2023

Decarbonisation Progress

The Fund achieves a 46% reduction in its financed emissions, and a 59% reduction in its WACI, when compared to its 2020 baseline.

2024

Updated Climate Change Strategy

The Fund agrees to an updated Climate Change Strategy, which sets interim milestones for the achievement of its net zero goal. The interim targets are aligned with those of LGPS Central Limited (LGPS Central).

Governance *(continued)*

Board Oversight

Roles and responsibilities are clearly defined in the Fund's Governance Compliance Statement. Shropshire Council holds overall responsibility for the Fund but has delegated its management and administration to the Shropshire County Pension Fund Committee ('the Committee').

The Committee prepares the Investment Strategy Statement (ISS), which includes the Fund's Responsible Investment Beliefs. The Climate Change Strategy, which is referenced in the ISS and also published separately, sets out 10 evidence-based beliefs. These include recognition of climate change's impact on the financial system, environment, and society. The beliefs reaffirm support for the Paris Agreement and the need for a low-carbon transition.

The Committee meets quarterly or as needed. Engagement reports from investment managers and the engagement provider are standing items on each agenda. Both the Committee and the Pension Board receive regular training on responsible investment, with additional sessions delivered when required. The Committee also receives quarterly updates on responsible investment, including climate change.

Each Committee meeting includes time to discuss responsible investment and ESG issues. Meetings are live streamed, and an Annual Report covering these topics is published on the Fund's website, along with specific climate-related reports.

The Fund applies the Myners Principles to support effective decision-making, with annual disclosures included in Appendix A of the ISS.

Since September 2020, the Committee has received annual Climate Risk Reports to inform its climate strategy.

The Local Pensions Board oversees the Fund's governance and administration, ensuring compliance with LGPS Regulations and related legislation.

Clun Castle, Shropshire

Governance *(continued)*

Management's Roles and Responsibilities

The Head of Pensions – LGPS Senior Officer works with the Pensions Investment and Responsible Investment Manager to oversee climate-related investment risks and report to the Pension Committee. As an externally managed fund, much of this responsibility is delegated to portfolio managers, who are regularly monitored by Officers and the Committee.

The Committee is supported by its investment adviser, Aon, in monitoring investments. Reports include ratings on risk management, investment process, performance, and ESG factors where applicable. Material developments are reported to the Committee for consideration and potential action. In addition to AON as investment advisor the Fund is also supported by an independent advisor in Philip Hebson.

Since 2020, Officers and the Committee have received an annual Climate Risk Report to support climate-related considerations in strategy setting, including asset allocation and selection. These reports are published annually.

Roles of Advisors

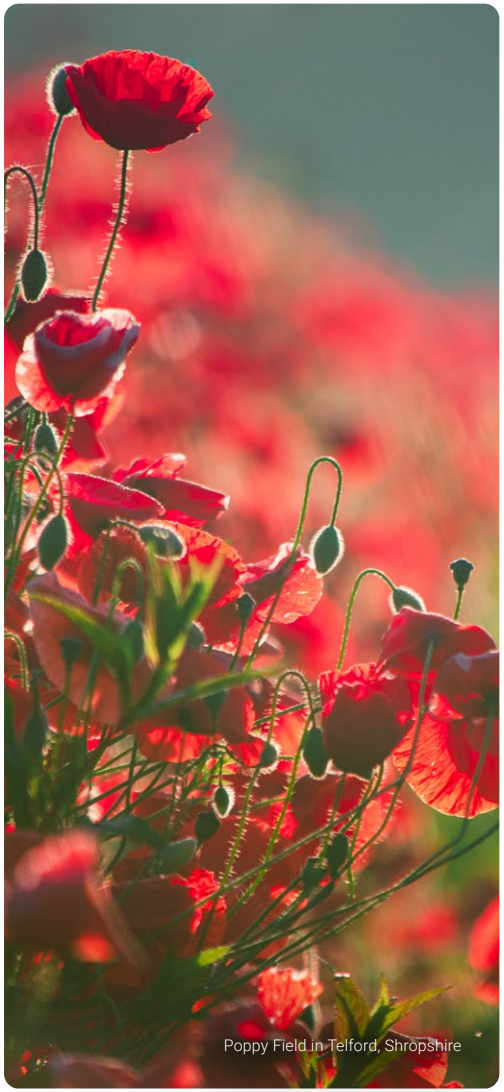
The Committee is supported by an independent advisor and an investment consultant. The independent advisor provides guidance on strategic issues and the overall investment approach. The investment consultant offers technical advice on portfolio construction, performance analysis, manager monitoring, and interpreting performance data. The Committee may delegate investment implementation to Officers as appropriate. To support this, Officers and the investment consultant hold quarterly technical meetings.

Ongoing Education and Training

The Pensions Board and Committee receive regular training on responsible investment topics, including climate change, with the Committee receiving quarterly updates.

In December 2024, LGPS Central presented to the Committee on monitoring and managing climate risk. The annual Climate Risk Report presentation also allows the Committee to review the Fund's carbon footprint trajectory and performance against peers and benchmarks.

Additionally, the Committee receive regular updates from Columbia Threadneedle, the Fund's Responsible Engagement Overlay Manager, and the Local Authority Pension Fund Forum (LAPFF) through their governance papers on engagement impacts, including on climate risks.



Poppy Field in Telford, Shropshire

Strategy

Description of Climate-related Risks and Opportunities

As a diversified asset owner, the range of climate-related risks and opportunities is multifarious and constantly evolving. A subset of risk factors is presented in the table below.

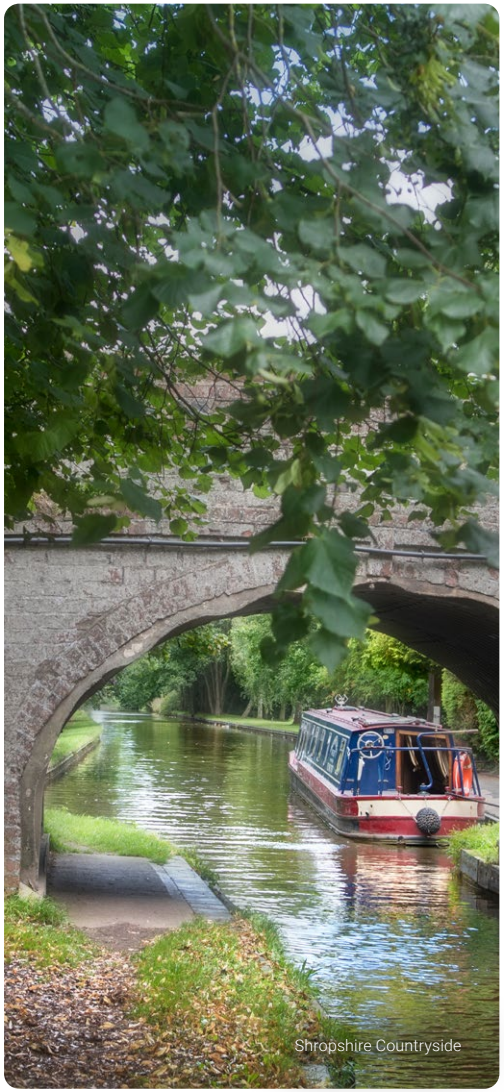
TABLE 1: EXAMPLES OF SHORT-, MEDIUM-, AND LONG-TERM CLIMATE-RELATED RISKS AND OPPORTUNITIES

Source of Risk and Opportunities	Category	Risk or Opportunity	Time Horizon	Impact Area	Mitigation / Management Strategy
Policy Changes (Including Carbon Pricing)	Transition	Risk and Opportunity	• Short • Medium • Long	• Across investments and funding • Investments in carbon-intensive and low-carbon industries • Operational	• Monitor potential regulatory changes (domestic and international) and consider the impact of these changes on the Fund's approach to investments and its internal operations. • The achievement of the Fund's climate targets will mitigate the impact of increasing carbon prices. • Monitor manager preparedness and awareness of changing carbon prices across relevant markets, alongside their awareness of low-carbon alternatives which may benefit from rising carbon prices. • Consider the impact of likely policy changes in strategic decisions.
Technological Change	Transition	Risk and Opportunity	• Short • Medium • Long	• Across Asset Classes	• Monitor manager awareness of emerging and disruptive technologies. • Consider the impact of these changes on strategic decisions.

Carding Mill Valley, Shropshire

Strategy *(continued)*

Source of Risk and Opportunities	Category	Risk or Opportunity	Time Horizon	Impact Area	Mitigation / Management Strategy
Changing Weather Systems and Climate Adaptation	Physical	Risk and Opportunity	• Short • Medium • Long	• Physical Assets • Corporate Holdings	• Carry out scenario analyses on various climate scenarios to assess impact. • Ensure external managers maintain adequate consideration of both acute risks (floods, storms, etc) and chronic risks (damages associated with rising sea levels, global temperature increases, etc). • Ensure managers monitor the market for investment opportunities in climate adaptation projects. These could include large-scale infrastructure projects such as floodwalls, alongside technological products such as AC units and other cooling systems. • Ensure managers monitor portfolio company's assessments of extreme weather impacts on their operations.
Resource Scarcity	Physical	Risk	• Medium • Long	• Physical Assets	• Monitor manager awareness of resource scarcity. • Consider managers' awareness of agricultural holdings.



Shropshire Countryside

Strategy *(continued)*

Description of Impact of Climate-related Risks and Opportunities

While the Fund is diversified across asset classes, regions, and sectors, it recognises that climate risk is systemic and cannot be eliminated through diversification alone.

The Climate Change Strategy outlines the Fund's approach to managing climate-related risks, recognising both physical and transition risks and their potential financial and reputational impacts. Underlying managers are expected to assess these risks and opportunities from both top-down and bottom-up ESG perspectives.

Key management techniques include measurement and observation, policy review, asset allocation, selection and due diligence, purposeful stewardship, and transparency and disclosure.

The Fund is also exploring ways to further integrate climate-related risks and opportunities into its investment strategy, including potential investments in sustainable asset classes that align with its investment and funding objectives.

Description of Resilience of the Organisation's Strategy

To assess how climate scenarios could impact the Fund's funding strategy and risk-return profile, the Fund engaged Mercer LLC. As the Fund's actuary, Mercer incorporated climate scenario stress testing into the 2022 valuation contribution modelling for local authority employers.

In 2020 and 2022, via LGPS Central, Mercer also analysed how asset performance might vary under different climate scenarios. Both 2022 reports modelled three scenarios: Rapid Transition, Orderly Transition, and Failed Transition. Results are detailed in the Actuarial Valuation Report (31 March 2022) and the 2022 Climate Risk Report.

Translating scenario analysis into investment strategy remains challenging due to the wide range of plausible outcomes, uncertain probabilities over long horizons, and sector performance reversals between scenarios. Despite these challenges, the Fund seeks the best available climate research to strengthen portfolio resilience.

The Fund has committed to undertaking a revised climate scenario analysis and the results of this will be published in the 2025 Actuarial Valuation Report.

View from The Wrekin, Shropshire

Risk Management

Identifying and Assessing Climate-Related Risks and Opportunities

The Fund identifies and assesses climate-related risks at both total Fund and individual asset levels. Recent Climate Risk Reports combine top-down and bottom-up analyses. The Fund recognises that assessment tools are evolving and aims to use the best available information to evaluate climate-related threats to investment performance.

Where possible, climate risks are expressed in units of investment return to allow comparison with other risk factors. As an externally managed fund, identification and assessment also rest with appointed managers, who are regularly monitored.

Engagement with investee companies is conducted through stewardship partners including LGPS Central, EOS at Federated Hermes, Columbia Threadneedle (Responsible Engagement Overlay provider), and LAPFF. Based on Climate Risk Report findings, the Fund has developed a Climate Stewardship Plan to focus engagement on priority investments.

The Fund continues to monitor existing and emerging climate-related regulatory requirements.


Ludlow, Shropshire

Risk Management *(continued)*

Managing Climate Risks and Opportunities

Risk prioritisation is based on perceived threat to the Fund, informed by analyses such as Climate Scenario Analysis and Carbon Risk Metrics.

A core element of the Fund's approach is ongoing monitoring of external managers. For LGPS Central-managed funds, climate considerations are integral to manager selection and due diligence. Post-appointment, LGPS Central's RI team meets managers quarterly to review new positions, recent engagements, and ESG-related controversies. Managers are assessed on a RAYG scale, with progress tracked over time.

Stewardship is also central to managing climate risk. The Fund expects investee companies to manage material risks, including climate change, and believes focused investor engagement can drive improvement.

The Fund supports Climate Action 100+ objectives, which call for companies to adopt governance structures for climate risk, decarbonise in line with the Paris Agreement, and disclose using TCFD recommendations.

Through its own membership and LGPS Central's, the Fund works with several engagement partners to engage investee companies on climate risk.

TABLE 2: THE FUND'S STEWARDSHIP PARTNERS

Organisation	Remit
LGPS Central Limited	The Fund is a 1/8th owner of LGPS Central. Climate change is one of LGPS Central's stewardship themes, with quarterly progress reporting available on the website. The Responsible Investment and Engagement Team at LGPS Central engages companies on SCPF's behalf, including via the Climate Action 100+ initiative.
Federated Hermes	EOS at Federated Hermes is engaged by LGPS Central to expand the scope of the engagement programme, especially to reach non-UK companies.
Local Authority Pension Fund Forum	SCPF is a long-standing member of LAPFF. LAPFF conducts engagements with companies on behalf of local authority pension funds.
Columbia Threadneedle Investments	CTI is the Fund's stewardship partner. The company is the responsible overlay manager and engages directly with the Fund's equity holdings, providing reports to the Fund on a quarterly basis.

Risk Management *(continued)*

Voting is a key element of climate stewardship. The Fund delegates voting to LGPS Central or directly appointed managers. For LGPS Central-managed assets, votes follow LGPS Central's Voting Principles, which the Fund helps review annually. These principles incorporate climate considerations, such as voting against companies that fail to meet Transition Pathway Initiative (TPI) thresholds.

The Fund uses Columbia Threadneedle (CTI) to provide a Responsible Engagement Overlay for Global Equity portfolios, engaging companies on environmental and social impacts.

Voting activity is reported quarterly and published on the Fund's website, while LGPS Central publishes its own quarterly voting and engagement reports.

Based on Climate Metric Analyses, the Fund develops a priority list for climate engagements, focusing on major contributors while considering each company's decarbonisation and net zero approach. This informs investment and engagement decisions. The companies in the Fund's priority list can be seen in the table below.

TABLE 3: CLIMATE PRIORITY LIST

Company Name	Weight	Financed Emissions	Contribution to Financed Emissions
RWE	0.08%	2,909	6.41%
GLENCORE	0.15%	1,071	2.36%
SHELL PLC	0.09%	753	1.66%
BP	0.09%	462	1.02%
HOLCIM	0.01%	151	0.33%
ARCELORMITTAL	<0.01%	147	0.32%

CRH, Air Liquide, NextEra Energy, Linde, and Taiwan Semiconductor Manufacturing Co have been recommended for removal from the list. This decision is based on two key factors:

1) Financed Emissions Contribution: These companies no longer rank among the Fund's top contributors to financed emissions.
2) Alignment with LGPS Central's Stewardship Priorities: The removal of these companies allows for greater alignment with LGPS Central's Stewardship Priority companies. This alignment is crucial for focused engagement efforts, providing meaningful updates, and conducting thorough company research.

While RWE and ArcelorMittal have been recommended for inclusion, considering its contribution to the Fund's financed emissions and alignment with LGPS Central's Stewardship Priority companies.

Risk Management *(continued)*

Climate in the Context of the Fund's Risk Framework

Both 'mainstream' risks and climate-related risks are discussed by the Pension Committee. While specific macro-economic risks are not usually included in isolation, the Fund has deemed climate risk to be sufficiently significant and therefore included it on the Fund's Risk Register. Climate risk is further managed through the Fund's Climate Stewardship Plan.

Ironbridge, Shropshire

Metrics and Targets

What We Measure

Over time, the scope of analysis and the metrics employed has expanded and evolved to keep abreast of the latest methodologies and available data. As of 31 March 2025, we measure the carbon footprints of the Fund's equities, corporate bonds, sovereign debt, and private market investments.[1]

The metrics utilised in this report are selected in consideration with the Fund's framework for managing climate risks and opportunities, regulatory requirements, including alignment with the DLUHC's consultation[2] and the FCA's requirements on climate reporting.[3] These requirements are largely in line with the TCFD's recommendations. Finally, metrics are selected in consideration with data and methodology availability, as we prioritise sourcing appropriate data from reputable sources and adhere to the methodology prescribed by the Partnership for Carbon Accounting Financials (PCAF).

As no single metric is sufficient in capturing the entire climate profile of a portfolio or issuer, we have therefore constructed a comprehensive suite of climate metrics, including headline metrics and additional metrics, these metrics include emissions, exposure to fossil fuels and clean tech, engagement, and alignment metrics.

The headline metrics contained within this report include:

- **Absolute emissions metric –** financed emissions
- **Emissions intensity metric –** normalised financed emissions and weighted average carbon intensity (WACI)
- **LGPS Central's net zero alignment metric**

The analysis in this report is based on a dataset provided by MSCI ESG Research LLC (MSCI). We utilised data that was downloaded from MSCI during July 2025. We gain comfort from the quality of MSCI's data through our own assessment of MSCI's methodology and our data validation processes. Data is sense-checked internally, and any anomalies are investigated in the underlying data to ensure inaccuracies are promptly identified and amended.

Ellesmere, Shropshire

[1] Private market carbon metrics to follow report once available.

[2] DLUHC, Local Government Pension Scheme (England and Wales): Governance and reporting of climate change risks. Consultation can be accessed on DLUHC's website.

[3] FCA, Enhancing climate-related disclosures by asset managers, life insurers and FCA-regulated pension providers. Policy Statement can be accessed on FCA's website.

Metrics and Targets *(continued)*

Headline Metrics

The headline metrics below detail the absolute emissions and carbon intensity metrics utilised to analyse the Fund's climate risks and opportunities.

TABLE 4: HEADLINE METRICS

Metrics	Financed Emissions	Normalised Financed Emissions	Weighted Average Carbon Intensity (WACI)
Absolute / Intensity	Absolute	Intensity	Intensity
Definition	Financed emissions calculates the absolute tonnes of CO_2 equivalent for which an investor is responsible.	This metric measures the Financed Emissions for every £1 million invested.	WACI measures a fund's exposure to carbon-intensive companies.
Question answered	What is my fund's total carbon footprint?	What is my fund's normalised carbon footprint per million GBP invested?	What is my fund's exposure to carbon-intensive companies?
Unit	tCO_2e	tCO_2e / £m invested[4]	tCO_2e / $m sales[5]
Comparability	No; does not take size into account	Yes; adjusts for fund size	Yes

[4] Normalised financed emissions uses GBP as the base currency as this is the currency used for the Fund's investments.

[5] WACI uses USD as the base currency due to USD's prevalence in global corporate reporting.

Metrics and Targets *(continued)*

Net Zero Alignment Metric

LGPS Central's Paris Alignment Metric is a proprietary metric constructed using several MSCI data points. It provides an insight into how portfolio companies are currently managing their climate risks, as well as incorporating forward looking metrics.

A company will be considered aligned/aligning to Net Zero if:

The company scores above **Median** in Low Carbon Transition score

\+ and it meets **one** of the following criteria: +

The company has a science-based target

or

The company has an implied temperature rise rating of 2.0°C or lower

Wenlock Priory, Much Wenlock, Shropshire

Metrics and Targets *(continued)*

The Fund's Climate Targets

In the below table, the Fund's climate targets are provided alongside the progress that the Fund is making in order to achieve those targets.

TABLE 5: THE FUND'S CLIMATE TARGETS

Target	Progress
LISTED EQUITY AND CORPORATE BONDS	
A 50% reduction in Scope 1 & 2 financed emissions by 2030 or sooner compared to 2020.	Since 2020 the Fund's listed equity financed emissions have decreased by 34.5%. **Financed emissions (listed equity)** — 2020 (restated): 46,235 tCO_2e; 2025: 30,290 tCO_2e
Track the relevant category Scope 3 emissions of the top 10 emitters in the portfolio from 2024.	The Fund began tracking the scope 3 emissions of the Fund's greatest emitters during 2023.
2024 Establish carbon foot printing for all pooled private market assets using estimated data.	LGPS Central began the process of carbon footprinting all pooled private market assets in 2024. This process utilises both estimated and reported data. The latest findings of this analysis will be distributed once available. Compared to listed assets, carbon footprinting in private markets remains in an early stage of development. As a result, we are unable to provide a suite of metrics comparable to those available for listed assets, and we are more reliant on estimated data. However, we believe that reporting these figures illustrates a positive action and may encourage private market managers and companies to enhance their reporting on carbon footprint metrics.
2025 Establish carbon foot printing for all pooled private market assets using both actual and estimated data.	
2026 Reporting of carbon footprint on all pooled assets.	
2030 Establish carbon foot printing for all pooled private market assets and legacy managers using actual data.	

Metrics and Targets *(continued)*

The Fund's Climate Metrics

Scope of Analysis

The following Climate Metrics offer a detailed, bottom-up analysis with the following objectives:

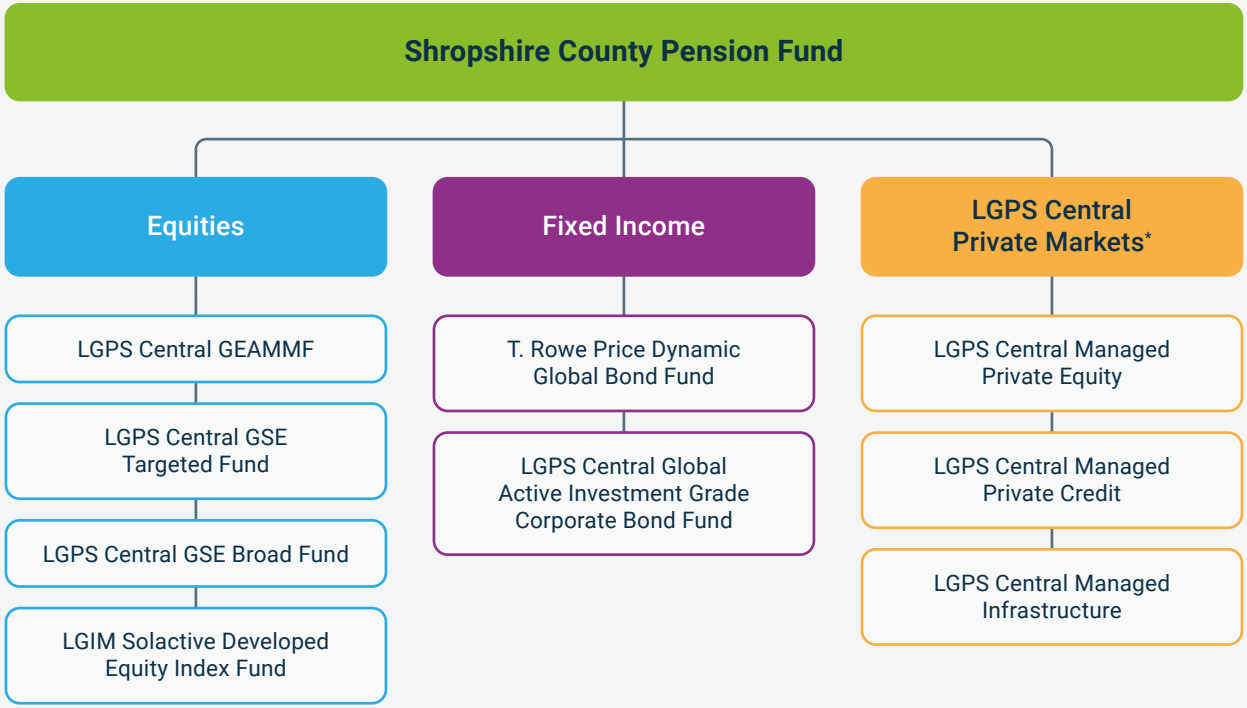
- Observing climate transition risks and opportunities within the portfolio.
- Identifying opportunities for engagement with companies.
- Facilitating the monitoring of climate risk management by managers.

This analysis encompasses public market investments reported as of 31 March 2025. It includes holdings in listed equity, fixed income funds including government debt, and the Fund's private market holdings managed by LGPS Central. Private market holdings were first incorporated into this analysis in the 2024 report. Where available, reported data for private market holdings has been utilised. Where unavailable, estimations have been constructed using the portfolio holdings value, revenue, sector and attributed ownership. Due to the current non-uniformity of private market data, it has not been possible to extend this coverage to the Fund's non-pooled private market investments.

Shrewsbury, Shropshire

Metrics and Targets *(continued)*

FIGURE 2: BREAKDOWN OF FUNDS INCLUDED IN THE ANALYSIS



* Private markets data to be distributed once available.


Ludlow, Shropshire

Metrics and Targets *(continued)*

Restated Data

Climate data is an evolving field, and methodologies are continuously updated by governments, data providers, and companies. The data accessible through our data provider (MSCI) undergoes frequent revisions as estimated data gets replaced by reported data, estimations are refined for greater precision, and data coverage expands.

We recalculate our emissions annually and may revise previously reported greenhouse gas (GHG) data to incorporate the most current information. When possible, we align our holding period with the period in which emissions from the underlying issuer occurred. Consequently, there may be variations between the data reported in previous documents and the figures presented in this report due to these restatements. Our metrics employ methodologies aligned with those used by the Partnership for Carbon Accounting Financials (PCAF) and MSCI.

TABLE 6: RESTATEMENTS

Data for	Asset class	Metric	Portfolio Value Reported in 2024	Reference Index Value Reported in 2024	Portfolio Value Restated in 2025	Reference Index Value Restated in 2025	Change from Restatement (Portfolio)	Change from Restatement (Benchmark)
Q1 2024	Listed Equity	Financed Emissions	29,389	84,451	27,781	79,959	-5.5%	-5.3%
		WACI	52.1	122.0	50.7	121.6	-2.5%	-0.3%
	Corporate Fixed Income	Financed Emissions	10,862	11,865	14,649	25,509	34.9%	115.0%
		WACI	123.9	137.7	130.0	155.0	4.9%	12.6%
	Sovereign Debt	Production	2,503	-	14,734	-	488.7%	-
		Consumption	14.1	-	11.6	-	-17.7%	-

The significant increase in the corporate fixed income financed emissions is primarily associated with improvements in data quality. The 2024 report excluded the T. Rowe Price Dynamic Global Bond Fund due to its corporate data availability falling below 60%. Due to improvements in data availability this portfolio has been reincluded in the below analysis. This re-inclusion has significantly driven the corporate fixed income's financed emissions, as well as the sovereign debt production metrics.

Metrics such as financed emissions and sovereign debt production are absolute metrics, meaning any new holdings will drive up the figure, while WACI and consumption are relative metrics, meaning any new additions will be included as a component weighted. Hence, the larger restatements in financed emissions and sovereign debt production, in comparison to WACI and sovereign debt consumption.

Metrics and Targets *(continued)*

Equity

The below dashboard shows the Fund's aggregated climate risk metrics for each portfolio in the equity asset class.

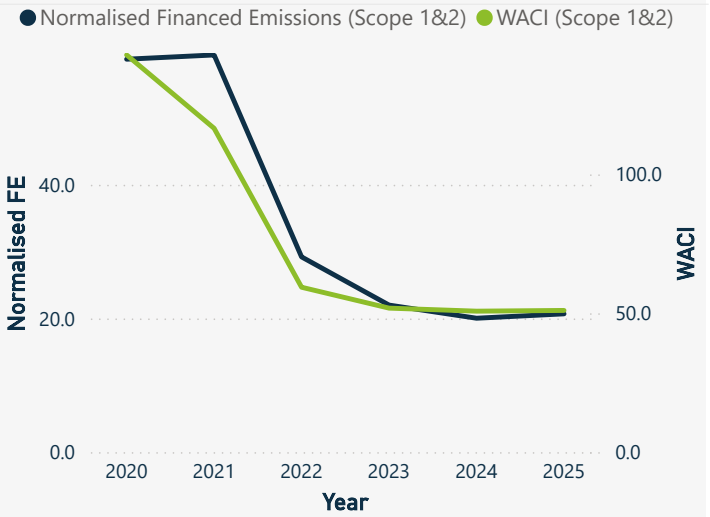
Equity Fund Asset Class	Multiple Fund Classification	Multiple Fund Manager	£1,513,393,605 NAV	Blended Reference Index	Q1 2025 Period

	Emissions Category	Portfolio	Index	Previous Year	Portfolio	Index
Listed Equity / Corporate Bonds						
Financed Emissions (tCO_2e)	Scope 1+2	30,290	79,685	27,781	97.9%	98.4%
	Scope 3	510,415	634,972	489,732	92.1%	91.1%
Normalised Financed Emissions (tCO_2e/£m Invested)	Scope 1+2	20.7	59.4	20.0		
	Scope 3	367.1	473.3	370.1		
Weighted Average Carbon Intensity (tCO_2e/$m Sales)	Scope 1+2	51.0	122.1	50.7	97.9%	98.4%

Top 10 Emissions Contributors

Issuer	Portfolio Weight	Index Weight	% Financed Emission		% WACI		Scope 1+2	Scope 3	Engagement	LCT	ITR	SBT
Heidelberg Materials AG	0.09%	0.031%	11.98%	1	4.98%	3	67.9M	22.8M	Yes	3.7	2.6	Yes
PHILLIPS 66	0.16%	0.072%	5.95%	2	0.85%	17	38.9M	359.0M	Yes	2.1	10.0	
NEXTERA ENERGY, INC.	0.37%	0.195%	4.14%	3	10.82%	1	42.3M	2.7M	Yes	6.0	3.7	
Air Liquide SA	0.17%	0.144%	3.83%	4	4.10%	5	37.6M	21.1M	Yes	4.5	10.0	Yes
WASTE MANAGEMENT, INC.	0.32%	0.123%	2.97%	6	4.68%	4	15.2M	1.8M	No	5.6	2.4	Yes
Iberdrola, S.A.	0.53%	0.134%	2.68%	7	2.37%	9	12.3M	39.3M	Yes	7.3	1.3	Yes
LINDE PUBLIC LIMITED COMPANY	0.23%	0.298%	2.51%	8	5.15%	2	37.3M	25.4M	Yes	4.5	10.0	Yes
KNIGHT-SWIFT TRANSPORTATION HOLDINGS INC.	0.15%		2.46%	10	1.19%	11	2.8M		No	5.7	3.8	
CONOCOPHILLIPS	0.32%	0.185%	2.37%	11	1.95%	10	17.4M	242.0M	Yes	2.9	3.7	
CANADIAN PACIFIC KANSAS CITY LTD	0.35%	0.082%	1.31%	13	3.53%	6	4.8M	1.6M	No	5.2	4.3	

Emissions Over Time



High Impact Sectors / Climate Solutions Exposures (Portfolio vs Benchmark)

Fossil Fuel Reserves	Fossil Fuel Revenue	Thermal Coal Reserves	Coal Power Exposure	Cleantech Exposure	Cleantech Revenue
2.1% | 6.6%	1.0% | 3.1%	0.8% | 2.8%	0.4% | 3.1%	37.4% | 40.6%	7.3% | 7.0%

Portfolio Alignment & Engagement

Engagement	Data Quality	LCT	ITR	SBT	Alignment
62.1%	2.2	53.8%	20.8%	53.0%	32.2%

Metrics and Targets *(continued)*

We analysed four equity portfolios totalling approximately £1.5 billion as of 31 March 2025.

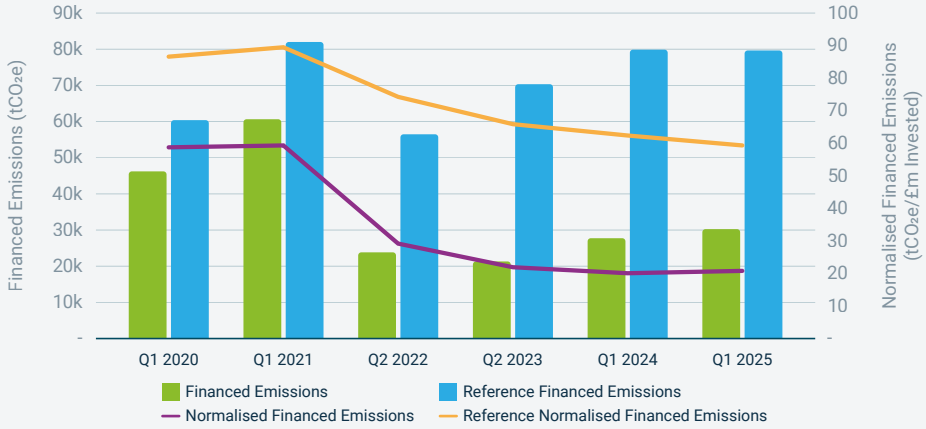
Each fund's carbon footprint is evaluated in comparison to the primary market index in which it predominantly invests. The table below summarises the reference indices that we utilised.

TABLE 7: REFERENCE INDICES

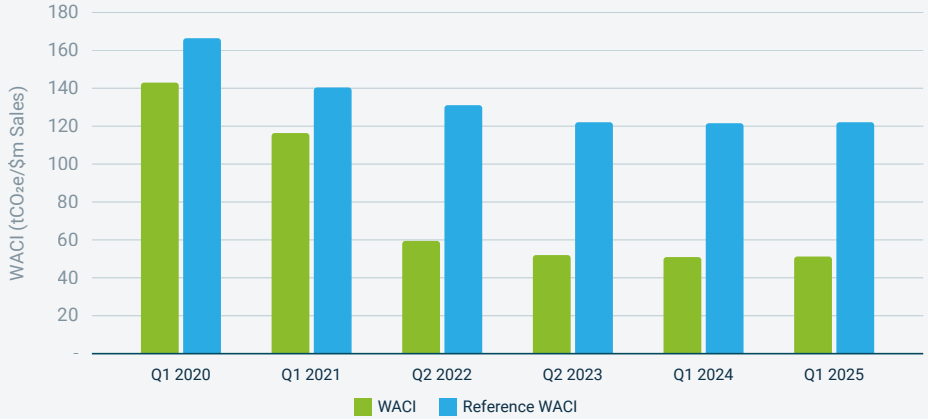
Investment Universe (Most Predominant)	Reference Index
UK Equities	FTSE UK All Share Index
Developed Markets	FTSE All-World Index
Emerging Markets	FTSE Emerging Index

Carbon Footprint Metrics

GRAPH 1: EQUITY FINANCED EMISSIONS OVER TIME



GRAPH 2: EQUITY WACI OVER TIME



As shown in Graph 1, the Fund's listed equity portfolio financed emissions decreased by 34.5% from 2020, despite a 75.6% increase in NAV over the same period. accounting for fluctuations in NAV, normalised financed emissions, decreased by 64.8%.

The Fund's listed equity financed emissions decreased by 60.7% between Q1 2021 and Q2 2022. This can primarily be attributed to the Fund's asset allocation decisions, where it exited two passive portfolios (one developed all world portfolio and one UK equities portfolio). When exiting these positions, the Fund also entered two of LGPS Central's Global Sustainable Equity Funds, and the Legal and General Low Carbon Transition Developed Markets Equity Index Fund, both are associated with relatively low climate metrics given their sustainability focus and climate tilt respectively.

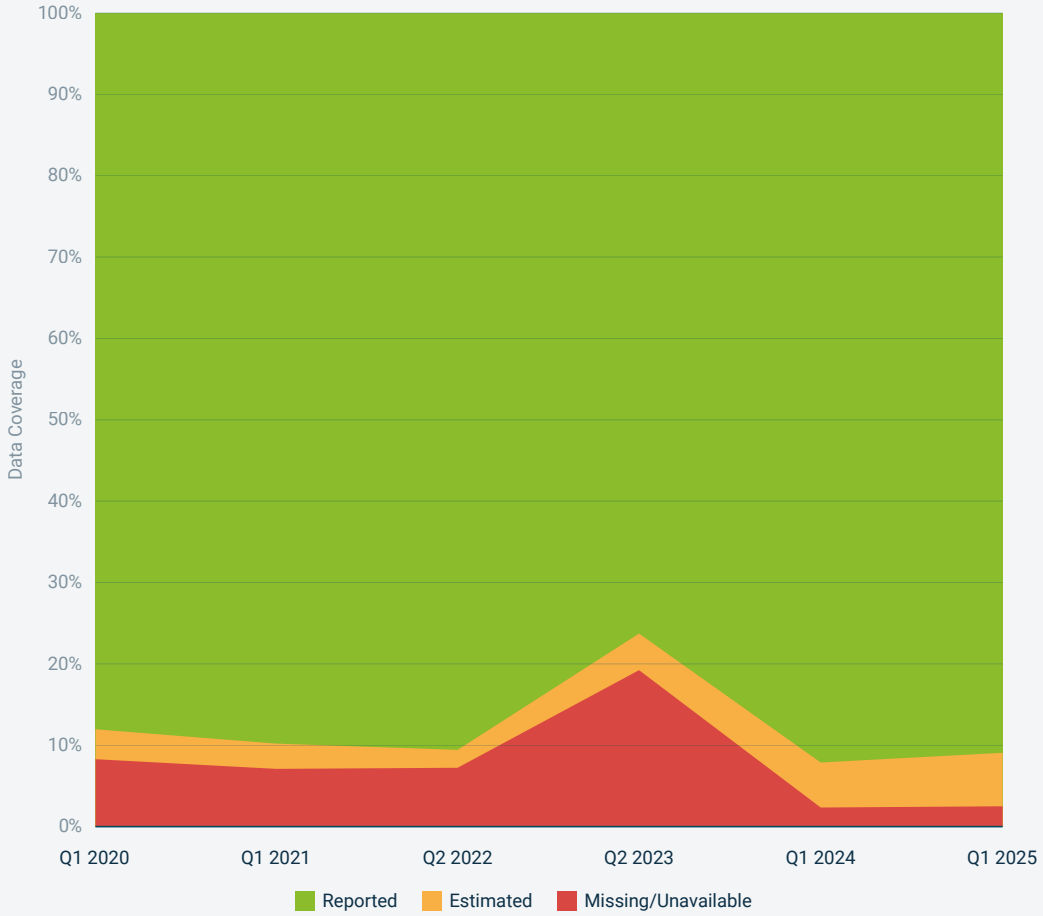
The decrease in normalised financed emissions can also be associated with the decrease in exposure to carbon intensive companies as illustrated in Graph 2, where WACI decreased by 64.3% relative to Q1 2020.

Metrics and Targets *(continued)*

From a sector perspective, the fund's largest share of WACI and financed emissions is attributed to the Utilities, Materials, and Energy sectors. Between 2020 and 2025, the WACI associated with these sectors declined by 67.9%, 49.8%, and 46.0%, respectively. Normalised financed emissions for these sectors fell by 74.4%, 53.3%, and 33.7%, respectively. Portfolio weights for these sectors decreased by 1.5%, 1.5%, and 1.3%, respectively.

Data

GRAPH 3: EQUITY DATA AVAILABILITY OVER TIME



While data availability for equities has been relatively strong since we began carbon footprinting on behalf of the Fund, the graph above illustrates an improving trend as the data availability of portfolio companies improves. A high level of data availability implies the aggregated carbon metrics are more reflective of the portfolio's overall carbon emissions profile. Where data availability is lower, aggregated carbon metrics are more likely to be skewed and therefore less reflective of the actual portfolio emissions, as a whole.

The increase in missing/unavailable data coverage during 2023 is associated with asset allocations taking place within this timeframe.

Metrics and Targets *(continued)*

Fixed Income

The below dashboard shows the Fund's aggregated climate risk metrics for each portfolio in the Fixed Income asset class.

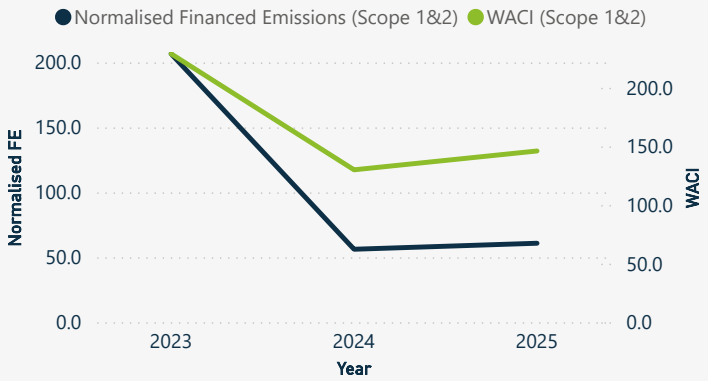
Fixed Income Fund Asset Class	Multiple Fund Classification	Multiple Fund Manager	£360,550,205 NAV	Blended Reference Index	Q1 2025 Period

	Emissions Category	Portfolio	Index	Previous Year	Portfolio	Index
Listed Equity / Corporate Bonds						
Financed Emissions (tCO_2e)	Scope 1+2	15,125	25,915	14,649	92.4%	95.9%
	Scope 3	68,531	138,841	74,335	86.5%	87.9%
Normalised Financed Emissions (tCO_2e/£m Invested)	Scope 1+2	60.8	82.6	56.2		
	Scope 3	296.3	442.5	308.3		
Weighted Average Carbon Intensity (tCO_2e/$m Sales)	Scope 1+2	146.1	154.3	130.0	93.0%	96.5%
Sovereign Debt						
Financed Emissions (tCO_2e)	Production	24,548.9	(Blank)	14,734.5	100.0%	(Blank)
	Consumption	26,488.6	(Blank)	15,995.1	100.0%	(Blank)
Weighted Average Carbon Intensity (various)	Production	212.8	(Blank)	199.8	100.0%	(Blank)
	Consumption	14.0	(Blank)	11.6	100.0%	(Blank)

Top 10 Emissions Contributors

Issuer	Portfolio Weight	Index Weight	% Financed Emission		% WACI		Scope 1+2	Scope 3	Engagement	LCT	ITR	SBT
RWE FINANCE US, LLC	0.40%	0.010%	18.73%	1	5.36%	3	62.1M	21.6M	Yes	3.7	10.0	Yes
THE SOUTHERN COMPANY	0.69%	0.077%	10.58%	2	14.94%	1	79.6M	35.8M	Yes	3.4	4.0	Yes
CLECO CORPORATE HOLDINGS LLC	0.20%	0.004%	9.02%	3	7.36%	2	9.2M		No		7.8	
ELECTRICITE DE FRANCE SA	1.02%	1.032%	3.77%	4	0.88%	18	19.3M	72.4M	No	6.7	1.3	Yes
Petroleos Mexicanos	0.14%		2.50%	5	0.59%	23	63.2M	396.6M	Yes	1.8	8.7	
OGE ENERGY CORP.	0.13%	0.002%	2.32%	6	2.67%	5	7.8M	8.6M	No	4.1	3.4	
Dominion Energy, Inc.	0.20%	0.063%	2.00%	10	2.85%	4	29.9M	28.5M	Yes	4.4	2.2	
OCCIDENTAL PETROLEUM CORPORATION	0.21%	0.091%	1.74%	12	1.13%	12	21.9M	234.0M	Yes	1.8	10.0	
WESTERN MIDSTREAM OPERATING, LP	0.11%	0.033%	1.51%	13	1.13%	11	4.9M		No	1.5	3.2	
AMEREN CORPORATION	0.09%	0.015%	1.30%	16	1.65%	6	20.0M	16.6M	Yes	3.7	3.7	Yes

Emissions Over Time



High Impact Sectors / Climate Solutions Exposures (Portfolio vs Benchmark)

Fossil Fuel Reserves	Fossil Fuel Revenue	Thermal Coal Reserves	Coal Power Exposure	Cleantech Exposure	Cleantech Revenue
3.2% | 5.5%	1.4% | 3.0%	1.5% | 1.5%	3.6% | 6.1%	22.2% | 31.1%	3.6% | 4.6%

Portfolio Alignment & Engagement

Engagement	Data Quality	LCT	ITR	SBT	Alignment
56.3%	2.2	29.0%	25.7%	59.6%	24.4%

Metrics and Targets *(continued)*

Our initial analysis covered two fixed income portfolios accounting for £360.6 million in NAV.

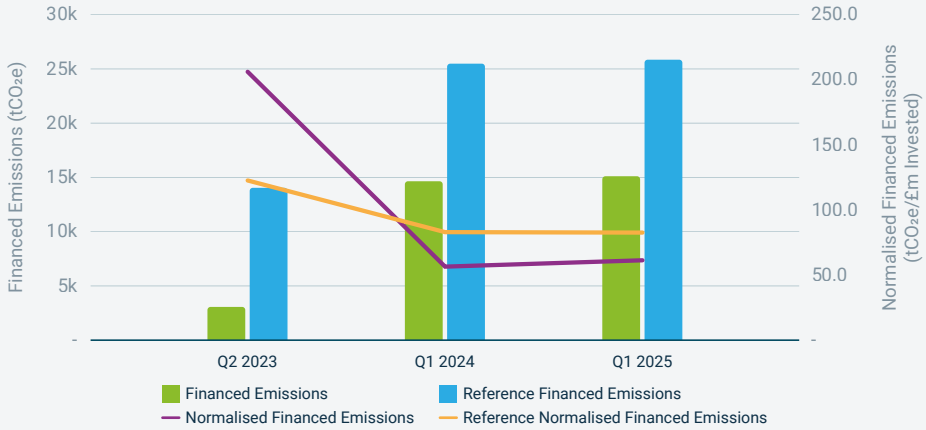
The reference index we use to measure the funds' relative performances is as follows:

TABLE 8: REFERENCE INDICES

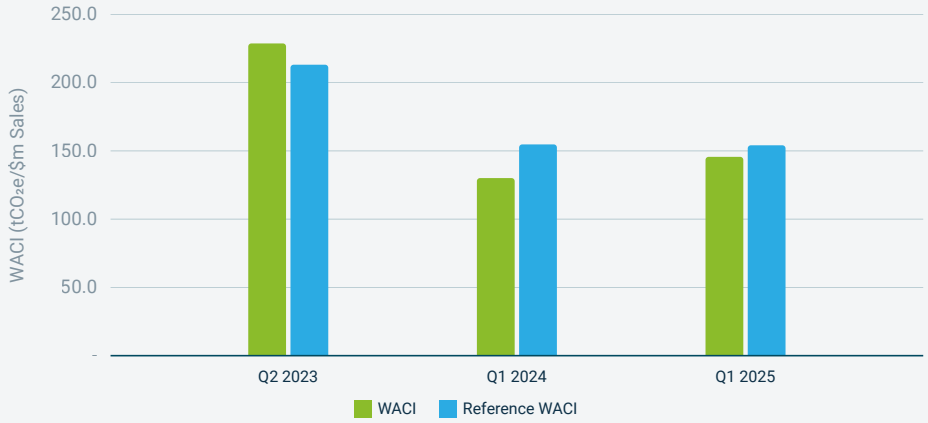
Fund	Reference Index
LGPS Central Global Active Investment Grade Corporate Bond Fund	50% Sterling Non-Gilt & 50% Global Corporate
T. Rowe Price Dynamic Global Bond Fund	ICE BofA Global Corporate Index

Carbon Footprint Metrics

GRAPH 4: CORPORATE FIXED INCOME FINANCED EMISSIONS



GRAPH 5: CORPORATE BOND WACI

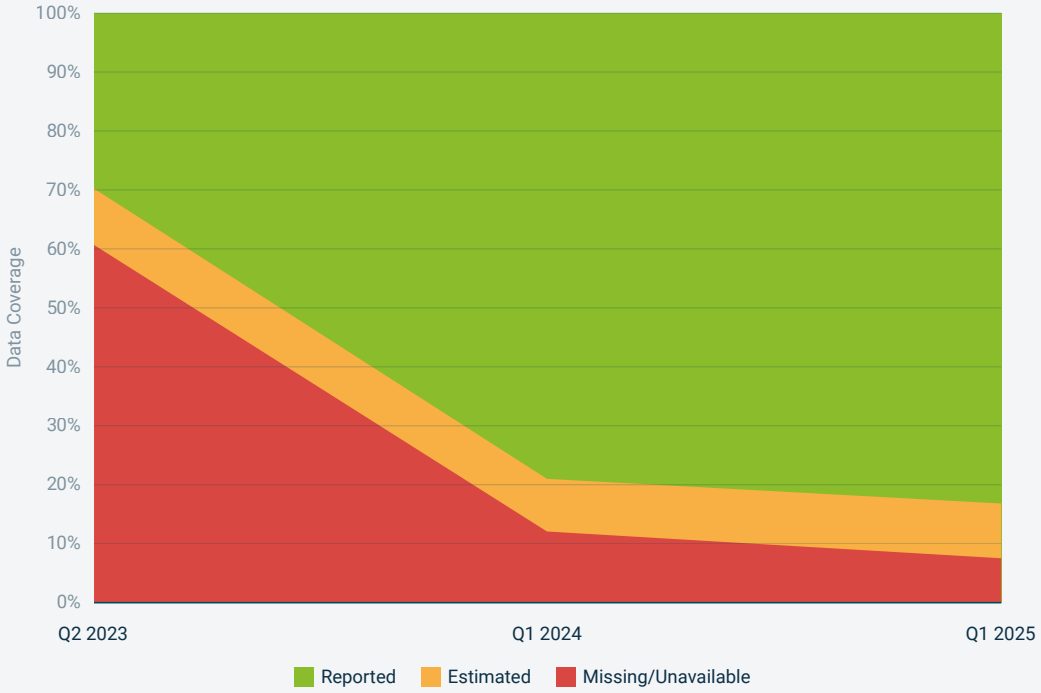


As illustrated in Graph 4, the portfolio's financed emissions and normalised financed emissions are 41.6% and 26.4% lower than the reference index respectively. Similarly, the portfolio's WACI is 5.3% lower than that of the reference index. This carbon metric outperformance can primarily be associated with an overweight exposure to the Materials sector and an underweight exposure to the Utilities sector.

Metrics and Targets *(continued)*

Data

GRAPH 6: CORPORATE FIXED INCOME DATA AVAILABILITY



Graph 6 illustrates the proportion of NAV associated with reported, estimated or missing carbon data, with the majority of the NAV (83.1%) associated with reported data.

Data availability and data quality for fixed income assets have traditionally been notably lower than listed equity. However, from Q2 2023 to Q1 2025, there has been an upward trend in reported and estimated data availability for the fixed income asset class over recent years.


Ironbridge, Shropshire

Glossary

Type of Emissions	Unit	Definition	Use Case	Limitations
Scope 1 Emissions	tCO_2e (tons of CO_2 equivalent)	These are the Greenhouse Gas (GHG) emissions that a company is directly responsible for through its generation of energy.	The emissions generated through the company's direct operations, such as fuel combustion, company vehicles, etc.	These metrics must be considered together to gain a full understanding of a company's carbon profile. They do not consider a company's size and they do not capture the impact of the company's business model on the climate. Scope 3 emissions can also be counted multiple times by companies at different stages of the same supply chain.
Scope 2 Emissions	tCO_2e	GHG emissions that a company produces indirectly through its operations via the consumption of purchased energy.	The emissions generated through the energy purchased by the company during its operations, such as energy consumption used to heat buildings.	
Scope 3 Emissions	tCO_2e	All indirect GHG emissions resulting from the company's wider business practice.	Capturing emissions up and down the company's supply chain, including the emissions produced by customers' consumption of its products.	
Production Emissions (Country)	tCO_2e	A sovereign's direct GHG emissions attributable to emissions generated within its national territory. It includes emissions resulting from production of exported goods and services (exported emissions).	Production emissions can be considered to be the scope 1 emissions of a sovereign.	There is a divergence of views on the impact of land use, considering the various accounting methodologies and the potential for carbon offsetting.
Consumption Emissions (Country)	tCO_2e	GHG emissions associated with the demand side and account for consumption patterns and trade effects. This metric provides a broader view of a sovereign's GHG emissions and tackles the issue of carbon leakage that arises due to production shifts from countries where goods and services are actually consumed later.	Consumption emissions can be considered the scope 1, 2 and 3 emissions of a sovereign excluding exported emissions.	As with traditional scope 3 emissions, it can be difficult to accurately allocate emissions along the value chain.

Glossary *(continued)*

Carbon Emissions Metrics	Unit	Definition	Use Case	Limitations
LISTED EQUITY AND CORPORATE BONDS				
Financed Emissions	tCO_2e	This figure represents the amount of emissions attributed to the investor based on the proportion of the company that the investor owns.	Measures the absolute tons of (scope 1 and 2) CO_2 emissions for which an investor is responsible.	Limited usefulness for benchmarking and comparison to other portfolios due to the link to portfolio size (benchmarks are assumed to have equal AUM to the respective portfolio to overcome this challenge).[6]
Normalised Financed Emissions	tCO_2e/£m invested	Financed Emissions are normalised by the portfolio's AUM to provide a measure of carbon intensity.	This measure converts the absolute measure of Financed Emissions into a relative measure of carbon intensity, to facilitate benchmarking and comparisons with other portfolios.	This measure will complement Financed Emissions, as alone it cannot provide an absolute measure of portfolio emissions.
Weighted Average Carbon Intensity (WACI)	tCO_2e/$m revenue	Is calculated by working out the carbon intensity (scope 1+2 emissions / $M revenue) for each portfolio company and calculating the weighted average using portfolio weight.	A proxy for carbon price risk. Were a global carbon price to be introduced in the form of a carbon tax, this would (ceteris paribus) be more financially detrimental to carbon intensive companies than to carbon efficient companies.	This metric includes scope 1 and 2 emissions but not scope 3 emissions. This means that for some companies the assessment of their carbon footprint could be considered an 'understatement'. As this metric is a product of revenue, the figure may fluctuate independently of the company's carbon emissions.

[6] LGPS Central uses EVIC as the attribution factor to calculate financed emissions. EVIC is the Enterprise Value Including Cash. In other words, this refers to the company's total value.

Glossary *(continued)*

Carbon Emissions Metrics	Unit	Definition	Use Case	Limitations
SOVEREIGN DEBT				
Financed Emissions (Production)	tCO_2e	This figure represents the amount of emissions attributed to the investor based on the proportion of the sovereign debt that the investor owns. This is calculated as a share of total production emissions.	Measures the absolute tons of (scope 1 and 2) CO_2 emissions for which an investor is responsible through their sovereign holding.	Financed emissions associated with production may understate the emissions of countries which are major importers and overstate the emissions of countries which are major exporters.
Financed Emissions (Consumption)	tCO_2e	This figure represents the amount of emissions attributed to the investor based on the proportion of the sovereign debt that the investor owns. This is calculated as a share of total consumption emissions.	Measures the absolute tons of (scope 1 and 2) CO_2 emissions for which an investor is responsible through their sovereign holding. Consumption is separated from production to limit double counting.	As this metric is based on a sovereign's consumption, there is significant uncertainty relating to the true value of consumed emissions.
Weighted Average Carbon Intensity (Production)	tCO_2e/$m PPP-adjusted GDP	Is calculated by working out the carbon intensity (scope 1+2 Emissions / $m PPP-adjusted GDP) for each sovereign holding and calculating the weighted average by portfolio weight.	Using the country's output (GDP) as the denominator allows for a fair comparison between sovereigns of different sized economies.	Measuring financed emissions attributed by production favours countries with larger GDPs. For example, countries with larger GDPs but the same emissions will report a lower number than their counterparts with low GDPs. This metric should therefore be considered alongside the Consumption WACI to gain a more accurate insight.
Weighted Average Carbon Intensity (Consumption)	tCO_2e/Capita	Is calculated by working out the carbon intensity (scope 1+2 Emissions / population) for each sovereign holding and calculating the weighted average by portfolio weight.	This intensity metric reflects the demand side of the economy, providing a more accurate insight into the carbon intensity of high consumption but low production countries.	Apportioning by population provides an insight into overall consumption, but may not accurately reflect the true figure. This metric should therefore be considered alongside the Production WACI to gain a more accurate insight.

Glossary *(continued)*

Carbon Emissions Metrics	Unit	Definition	Use Case	Limitations
ALL ASSET CLASS				
Progress	%	We measure our progress year-on-year and against our Baseline. As per our net zero strategy, our baseline year is 2019.	Reporting progress provides an insight into the trajectory of the portfolio's emissions and an assessment of progress towards net zero.	As emissions can fluctuate significantly over time in response to macro factors and data availability, decarbonisation progress is unlikely to be linear.
Data Availability	%	This figure refers to the percentage of the NAV for which we have data.	A high data availability will provide confidence in the accuracy of the data, while low data availability indicates that the metrics provided may not be fully reliable.	If data availability trips below 60%, we will not report the data. This is indicated on the dashboard by red text.

Glossary *(continued)*

Portfolio Alignment & Engagement	Unit	Definition	Use Case	Limitations
Engagement / Alignment	%	This percentage refers to the proportion of financed emissions which arise from companies in material sectors that are: 1) indirectly or directly engaged by LGPS Central; or 2) aligned or aligning with a net zero pathway, as per the methodology for "net zero alignment" below.	This metric aims to illustrate the extent to which the portfolio is moving towards net zero, in line with LGPS Central's own net zero strategy and expectations.	This metric is constructed by combining the "Engagement" and "Paris Alignment" metrics below. The limitations associated with those metrics are therefore also inherent to this metric.
Engagement	%	Is calculated by the proportion of financed emissions which are accounted for under an engagement program either directly, in partnership and/or through stewardship provider.	This allows us to understand how much of the portfolio's financed emissions are accounted for under engagement programs.	This figure does not demonstrate the degree of progress made with the portfolio company as a result of the engagement.
Low Carbon Transition (LCT > Median)	%	Low Carbon Transition scores are assigned from 1 to 10, whereby a score of 10 indicates exceptional management of climate risks and opportunities, while a score of 1 indicates poor management. This metric shows the proportion of financed emissions associated with a portfolio with a manager score above 5.	This views how well a company manages risk and opportunities related to the low carbon transition. The overall figure for this metric is apportioned by financed emissions, highlighting the proportion of emissions within the portfolio which arise from companies with effective carbon management policies.	While this considers the ability of a company's management to incorporate low carbon transition risks and opportunities, it is not an overall indicator of the company's low carbon transition performance.

Glossary *(continued)*

Portfolio Alignment & Engagement	Unit	Definition	Use Case	Limitations
Implied Temperature Rise (ITR < 2C)	%	ITR is typically expressed in degrees centigrade and is based on the implied global temperature rise if the entire economy adopted the same decarbonisation policy as the company in question. The reported figure is expressed in a percentage and relates to the share of financed emissions within the portfolio with an ITR of 2°C or less.	Implied temperature rise is an intuitive, forward-looking metric, expressed in degrees Celsius, designed to show the temperature alignment of companies, portfolios and funds with global temperature goals.	Implied temperature rise is heavily reliant on the model's parameters and assumptions.
Science-Based Targets (SBT)	%	This is calculated as the proportion of financed emissions which are accounted for by a portfolio company with science-based climate target.	Provides an insight into the proportion of companies which have implemented science-based targets. Apportioning by financed emissions places a greater weight on companies where emissions are more substantial.	This metric only measures the proportion of companies with official science-based targets which have been verified by an independent body. A company with robust and ambitious targets which have not been verified may be omitted.
Net Zero Alignment	%	This metric is constructed in-house. A company is considered to be aligned if they have a Low Carbon Transition score greater than 5, as well as either an ITR of 2 degrees Celsius or lower, or a science-based target.	This figure is designed to provide an insight into the overall net zero alignment of the portfolio. Apportioning by financed emissions places a greater weight on companies where emissions are more substantial.	The limitations of the figure will be carried over from the limitations of the underlying metrics. There is currently no consensus opinion on what it means for a company to be aligned.