GLIL Infrastructure LLP TCFD Product Report

For the period 01 January to 31 December 2024

Fund details

LEI	2138007Y9UIN7PSY5380
Fund size	£3.1 billion
As at	31 December 2024

Contents

Introduction

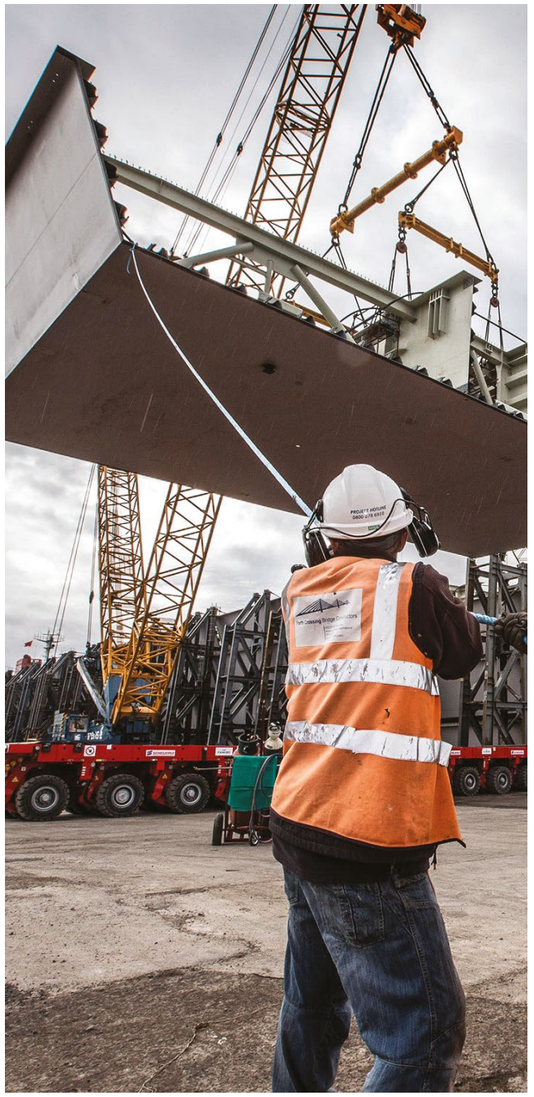
This TCFD product report has been produced by Local Pensions Partnership Investments Ltd. (LPPI) as the appointed Alternative Investment Fund Manager (AIFM) for GLIL Infrastructure LLP (GLIL or the Fund) to inform and assist investors in the Fund with their climate-related financial disclosures.

Overview of the Fund

The Fund is an Alternative Investment Fund investing in infrastructure assets predominantly in the United Kingdom. Investments pursue the following characteristics:

- Long life and low risk of obsolescence.
- Identifiable and reliable cash flows which are explicitly or implicitly inflation linked.
- Returns that are largely isolated from the business cycle and competition.
- Returns that show limited correlation with other asset classes.

Further information on the Fund is accessible from the GLIL website.



Background to TCFD product reports

The recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) set out how organisations across sectors and geographies should disclose climate-related financial information. The recommendations are structured around four thematic pillars that reflect core elements of how organisations operate: Governance, Strategy, Risk Management, Metrics and Targets.

As required by our regulator, the Financial Conduct Authority, we have made detailed disclosures under each of the four pillars within our LPPI Entity TCFD Report.

We are additionally required to supply on-demand TCFD product reports and underlying data to clients who require this information to satisfy climate-related financial disclosure obligations.

This TCFD Product Report has been voluntarily produced by LPPI and pre-empts requests for information specific to the Fund which will assist clients with climate-related financial disclosures.

Our approach to Governance, Strategy, and Risk Management for the Fund does not deviate materially from LPPI's overarching approach, which is set out in our LPPI Entity TCFD Report, available at www.lppi.co.uk.

1. Governance

The governance of climate-related risks and opportunities is incorporated into oversight and management arrangements specific to the Fund.

The GLIL Supervisory Board was constituted in order to effect the strategic management of GLIL and its business. It is comprised of representatives from each Class X investor.

The GLIL Investment Committee is a committee of the LPPI Board comprised of a representative from each of the Fund's founding members, two non-independent representatives appointed by LPPI in its capacity as AIFM of GLIL, and two persons independent of both the Fund's founding members and the AIFM. It has overall responsibility for the Fund's investment management activities including procedures which implement the Fund's ESG Policy. Agreed Investment Guidelines require LPPI as AIFM to, inter alia, have regard to ESG risks, including those associated with climate change.

Assessing and managing climate-related risks and opportunities forms part of pre-investment research and screening, investment due diligence, capital deployment decision-making, portfolio monitoring, and direct asset management.

The GLIL Investment Committee reviews all investment proposals brought forward by the LPPI investment team responsible for GLIL ("GLIL investment team"). Underwriting incorporates pre-investment screening and the consideration of relevant climate-related risks and opportunities at both sector and asset level, ensuring they are being identified and considered as part of decision-making and stewardship planning.

Assets are managed in accordance with plans agreed by the GLIL Investment Committee. Each investment is allocated to a senior member of the GLIL investment team who leads the asset management process which often involves taking a seat on the board of an investee company. Stewardship involves frequent interactions with investee companies and encompasses dialogue with operators and management teams around enhanced data availability, and appropriate metrics, targets, and disclosures for their business.

GLIL Investment Committee approval is required for all investment decisions, including responsible investment considerations, ESG priorities, and matters warranting specialist external expertise or focussed research and engagement.

The GLIL Investment Committee receives regular reporting from the GLIL investment team, with dedicated asset leads being responsible for delivering the relevant detail and insights at individual asset level. Climate-related risks and opportunities are also considered at whole fund level, over short, medium, and long-term horizons.

South Western Railway

Hornsea One wind farm

2. Strategy

Introduction

Our approach to assessing and managing the risks and opportunities posed by climate change is explained in our LPPI Entity TCFD Report which sets out the broader climate-related risks and opportunities for our business and the assets we manage.

Climate-related risks include adverse impact on the value of assets or income streams arising from transition risk and physical risk.

Transition risk is the risk of adverse changes in the value of assets or income streams arising from the nature and speed of mitigation and adaptation to climate change resulting from policies and requirements by governments, influential global bodies, and regulators.

Physical risk is the risk of adverse changes in the value of assets or income streams due to severe weather, either acting directly on physical assets or indirectly through business disruption, resource availability, or disruption to supply chains or service providers.

Physical risks can be both acute and event driven, and chronic, through longer-term shifts in climate patterns.

Our evaluation of material climate-related issues for the Fund has included reviewing insights from models which frame risks and opportunities through the lens of physical and transitional hazards over time, for example the Shared Socioeconomic Pathways models used by the Intergovernmental Panel on Climate Change (IPCC).

The table below summarises the climate related risks and opportunities we have identified for the Fund over the short, medium, and long term. Our approach to identifying climate-related risks and opportunities is based on categories defined by the TCFD Recommendations and Recommended Disclosures and includes risks inherent in the Fund. We have also provided illustrative risk impacts to explain how these risks could potentially materialise and the impacts through increased costs, reduced valuations, write-offs, and the early retirement of existing assets. The final column describes the potential financial impacts to the Fund if the risks were to materialise.

Our short-term horizon looks at a three-year period, our medium-term horizon looks forward up to 10 years, and our long-term horizon stretches to 2050. We have disclosed the primary timeframe within which we expect the risk could potentially materialise as many of these risks can be relevant to the short-, medium-, and long-term time horizons.

Risks

Category	Description	Illustrative impacts	Primary timeframe	Impact on the Fund
Transition: Technology	Changes in technology, obsolescence, or new technology failure	Lower customer demand, greater operating costs, and higher investment requirements	Medium term	Lower returns on capital and increased costs
Transition: Policy and legal	Changes in laws, regulations, or policy guidance	Carbon pricing regulation, capping supply and use of resource, enhanced emissions reporting obligations	Short term	Lower returns on capital, increased costs
		Increased exposure to environmental litigation	Long term	Potential asset write-offs
Transition: Market and reputation	Changing demand for and supply of property	Lower customer demand due to reputation of the investee company	Short term	Lower returns on capital
		Reduced customer demand in favour of more energy efficient assets	Medium term	
Physical: Operational	Acute and chronic climate impact on physical operations	Lower production and reduced revenues, increased insurance premiums and increased capital costs due to need to replace damaged/unsuitable assets	Long term	Lower returns on capital and potential asset write-offs
		Increased capital costs, higher energy costs and asset write-offs/impairments, amongst other impacts, for corporates	Long term	

Opportunities

Category	Description	Illustrative impacts	Primary timeframe	Impact on the Fund
Products and services	Increased requirement for renewable energy generation	The potential performance of assets could exceed expectations creating further opportunity for GLIL and increasing revenues	Medium term	Increased returns on capital
Markets	Access to new and emerging markets	Opportunities that arise from markets impacted by the positive developments in climate adaptation increasing revenues	Medium term	Increased returns on capital

Scenario analysis

Our approach to climate change scenario analysis and our reflections on the practical challenges it presents are discussed in the LPPI Entity TCFD Report. We consider climate scenario analysis a valuable tool in prospect but recognise complexity, nascency and data gaps as market wide challenges needing to be overcome.

We are in the early stages of considering integrating climate-related scenario analysis in our decision-making processes. We believe that incorporating climate scenarios into our decision making may assist us in understanding the impact of climate change, with a view to better managing our outcomes and those of our clients.

To provide long-term resilience to the transition to a low-carbon economy, we recognise that weather and climate projections can support our investment decision-making.

Our efforts to date have focussed on evaluating how the Fund's value may be affected by sectoral and geographical exposures. Whilst we have also calculated a portfolio climate value-at-risk (CVaR) metric and recognise its potential for framing our views on climate-related risks, it is not without limitations.
For instance, CVaR relies on assumptions about future climate scenarios and their impact on asset valuations. If these assumptions prove to be inaccurate, this will almost certainly misrepresent risk. Additionally, CVaR primarily considers long-term climate risks creating misalignment with investor needs for insights over shorter horizons (i.e. market fluctuations due to climate events).

These limitations prompt our decision not to disclose this metric until we have fully assessed its usefulness. We will continue to explore how scenario analysis models handle the complexity of factors through which the impact of climate change will materialise and to seek insights and prompts which are insightful for strategic and tactical decision-making.

In the meantime, reflecting FCA guidance, we have assessed whether the Fund has concentrated or high exposure to carbon intensive sectors. We used the Global Industry Classification Standard (GICS) which is widely used by financial firms and covers 11 economic sectors, to designate the carbon intensive sectors. For the purposes of our assessment Energy, Utilities, and Materials are designated carbon intensive sectors, and a high or concentrated exposure is when the Fund has an exposure exceeding 15% for that respective sector. In the reporting period, the Fund did not have a high or concentrated exposure to carbon intensive sectors.

3. Risk Management

We describe LPPI's processes for identifying, assessing, and managing climate-related risks in the LPPI Entity TCFD Report. Processes specific to the Fund are outlined below.

Identifying and assessing climate-related risks

The identification and assessment of climate-related risks is informed by a sectoral framing which considers how individual assets are exposed to physical and transition risk through their location, asset base, market position, area of activity, operating environment, and regulatory setting. Analysis is first undertaken as part of the underwriting process and forms part of both the proposal submitted to the GLIL Investment Committee for decision-making on capital deployment and the asset management plan developed for the asset.

Post acquisition, climate change risk forms part of the ongoing monitoring and asset management undertaken by the GLIL investment team with responsibility for identifying and reporting changes to the risks identified in the asset management plan residing with the dedicated asset lead.

Managing climate-related risks

The GLIL investment team is responsible for identifying and addressing climate-related risks as part of ongoing asset management. Regular dialogue with investee company boards, operators, and management teams is a direct source of information and a route for posing questions, gathering information, and evaluating how companies are positioned. Considerations will include how they are approaching the identification of climate-related risks for the business, including collecting data, tracking metrics, creating plans, and setting targets, as well as how responsibilities for climate-related considerations are located, delegated, monitored, and managed as part of corporate governance arrangements.

The Fund seeks strong governance rights wherever possible ideally through representation on investee company boards. These rights are used to guide portfolio companies in a direction consistent with the Fund's objective to generate strong risk adjusted returns on a sustainable basis by addressing material environmental, social, and governance (ESG) considerations, operate as responsible businesses, retain their social licence to operate and transition towards net zero emissions through planning for the progressive decarbonisation of their operations and supply chains by 2050. We encourage boards to appoint members with recognised expertise and the experience to both aid in navigating sustainability and ESG challenges and increase the probability that climate-related risks will be properly addressed.

Lyceum

4. Metrics and Targets

A range of metrics are used to assist the assessment of climate-related risks and opportunities for individual investee companies in the Fund. Investee companies are at different levels of maturity in their measurement, monitoring and reporting activities and work is ongoing to encourage improvements in coverage, quality, and disclosure.

Carbon emissions accounting by privately owned companies is less evolved than in publicly owned counterparties and is yet to become a universally recognised requirement for firms despite investor expectations being increasingly communicated through engagement with regulators, companies, and data providers.

Carbon Footprint of our Investments

The metrics in this report reflect total emissions and emissions intensity (carbon footprint) based on both reported and estimated data. Data is as of 31 December 2023 reflecting the financed emissions associated with the investments.

We are working with our portfolio companies to improve upon their disclosures and to better support informed decision-making and asset management around climate-related risks.

In 2022, all emissions data were based on third-party proxy estimates. By 2023, significant improvements in ESG data disclosures from portfolio companies enabled 47% of emissions data to be aligned with verifiable carbon accounting standards consistent with TCFD reporting guidelines.

The remaining 53% of data continues to rely on proxy estimates. This is outlined in Figure 2.

This enhancement in data quality has improved the accuracy of the reported combined emissions metrics for 2023. As a result, there are material differences in reported emissions between 2022 and 2023, as illustrated in Figure 1.

Looking ahead, we expect greater stability in emissions reporting as ESG disclosures continue to improve. GLIL remains committed to engaging with portfolio companies to further enhance the quality and availability of ESG data, thereby reducing reliance on proxy-based estimates.

Further details on the challenges and limitations associated with emissions metrics and data quality are provided in the appendix on page 18.

Fig 1. Climate Metrics

Metrics	Scope	Unit of Measurement	31/12/2022	Coverage (Reported & Estimated)	31/12/2023	Coverage (Reported & Estimated)
Total Carbon Emissions	Scope 1	tCO_2e	153,520.7	98.2%	36,802.77	99.4%
	Scope 2	tCO_2e	27,947.5	98.2%	49,504.10	99.4%
	Scope 3	tCO_2e	223,981.7	98.2%	183,614.16	99.4%
	Scope 1 & 2	tCO_2e	181,468.2	98.2%	86,306.87	99.4%
	Scope 1, 2 & 3	tCO_2e	405,449.9	98.2%	269,921.03	99.4%
Total Carbon Footprint	Scope 1 & 2	tCO_2e/$m invested	68.8	98.2%	34.0	99.4%
	Scope 1, 2 & 3	tCO_2e/$m invested	153.8	98.2%	95.2	99.4%
Weighted Average Carbon Intensity	Scope 1 & 2	tCO_2e/$m revenue	206.0	98.2%	20.41	99.4%
	Scope 1, 2 & 3	tCO_2e/$m revenue	460.3	98.2%	102.73	99.4%

Fig 2. Data Availability by AUM Covered (%) as at 31 December 2023

	31/12/2022	31/12/2023
AUM Covered (%)	100.0%	100.0%
Reported Emissions Data (% of AUM covered)	0.0%	45.9%
Estimated Emissions Data (% of AUM covered)	98.2%	53.5%
No Data (% of AUM covered)	1.8%	0.6%

Source: LPPI, S&P Global

Targets

GLIL has voluntarily made a public commitment to the goal of aligning its portfolio with net zero emissions by 2050 in line with the IIGCC Net Zero Investment Framework (NZIF). We use net zero targets to help identify climate-related risks and opportunities by assessing the exposure and vulnerability of different sectors, regions, and stakeholders to the transition risks of climate change and monitor their trajectory over time.

The Fund's ESG Policy sets an ambition to progressively transition portfolio companies into alignment with net zero by 2050.

In March 2024, the GLIL Investment Committee approved the implementation of the IIGCC Net Zero Investment Framework (the "Framework"). The purpose of the Framework is to assist asset managers to measure and manage portfolios toward achieving their net zero commitments. Setting targets for net zero is consistent with the mitigation of climate-related risks within the portfolio.

As an open-ended fund with a changing portfolio of private companies, it is challenging to establish a baseline at portfolio level. However, GLIL already works directly with companies to devise and implement carbon reduction plans focussed on emissions efficiency and transitioning towards net zero at an asset level.

In-line with IIGCC guidance, in 2024 GLIL has set a target for 100% of its portfolio to be classified as 'Aligned' or 'Aligning' by 2030. Measurement of its performance against this target is currently being developed and implemented.

Forth Ports

Appendix

Metrics and data limitations

Data coverage and quality

Accurate computation of climate-related metrics in investment portfolios requires high quality security-level data including GHG emissions for underlying investee companies. Many companies are measuring and publicly reporting their GHG emissions, which facilitates the type of high-quality data that investors need to effectively calculate climate-related portfolio metrics. However, many companies have not yet begun their emissions reporting journey.

Recognising that deferring measurement and reporting until 100% reported data is available would impede the progress, we could make in the near-term in providing transparency to stakeholders, estimates were used to fill data gaps, when necessary.

Estimated data reduces the reliability of the metrics since estimated emissions may not accurately reflect the actual emissions of any given company. Over the period, updates to data coverage and quality for the fund and index have resulted in changes to metrics reported in last year's report.

Lagged data

Climate-related data reporting by companies is often produced on a lag relative to financial data – as most climate-related data disclosure and reporting takes place on an annual basis and requires significant time to produce. In addition, there may be a lag between the time when data is disclosed by companies and when it is incorporated into the dataset produced by MSCI. While we sought to mitigate the impact of lagged data on the estimates by varying the holdings analysis date and the emissions effective date, emissions data included in the analysis for a given holding each year may reflect GHG emissions from prior year(s) for at least a subset of holdings included in the analysis.

Carbon emissions metrics explained

We use the following metrics to measure the collective carbon impact of the Fund's holdings, calculated according to TCFD standards, which in turn are based on the internationally accepted GHG Protocol:

Metric	TCFD definition, based on GHG Protocol
Scope 1 Greenhouse Gas Emissions (Metric Tonnes)	Direct GHG emissions that occur from sources that are owned or controlled by the company.
Scope 2 Greenhouse Gas Emissions (Metric Tonnes)	GHG emissions from the generation of purchased electricity consumed by the company.
Scope 3 Greenhouse Gas Emissions (Metric Tonnes)	GHG emissions that are a consequence of the activities of the company but occur from sources not owned or controlled by the company.
Total Greenhouse Gas Emissions (Metric Tonnes)	Total of Scopes 1 and 2 and 3 emissions.
Total Carbon Footprint (Metric Tonnes per $1m AUM invested)	Total carbon emissions for a portfolio normalised by the market value of the portfolio, expressed in tonnes tCO_2e/$m invested.
GHG Intensity by Capital Employed	Greenhouse Gas (GHG) Intensity by Capital Employed refers to the measurement of greenhouse gas emissions in relation to the capital invested or capital employed in an economic activity. It quantifies the environmental impact of a business or industry based on the amount of GHGs emitted per unit of capital invested.
GHG Intensity by Owned Area	Greenhouse Gas (GHG) Intensity by Owned Area is a metric that assesses the environmental impact of greenhouse gas emissions in relation to the total area owned or controlled by an entity.

Metric	Formula	Description
Carbon intensity	$\sum_{n}^{i}\left(\frac{\text{Current value of investment}_i}{\text{Issuer's market capitalization}_i} \times \frac{\text{Issuer's Scope 1 and Scope 2 GHG emissions}_i}{\sum_{n}^{i}\left(\frac{\text{Current value of investment}_i}{\text{Issuer's market capitalization}_i} \times \text{Issuer's \$M revenue}_i\right)}\right)$	Carbon emissions intensity measures the volume of carbon emissions per million dollars of revenue, also known as the carbon efficiency of a portfolio, expressed as tCO_2e/$m revenue.
Carbon footprint	$\frac{\sum_{n}^{i}\left(\frac{\text{Current value of investment}_i}{\text{Issuer's market capitalization}_i} \times \text{Issuer's Scope 1 and Scope 2 GHG emissions}_i\right)}{\text{Current portfolio value (\$M)}}$	Portfolio carbon footprint total carbon emissions for a portfolio normalised by the market value of the portfolio, expressed in tCO_2e/$m invested.

Magheramore

Clyde Wind Farm

Glossary

AUM
Assets under management.

Baselining
Establishing the starting point against which targets will be set and progress measured.

Benchmark-relative approach
Uses the emissions of a comparator benchmark at a point in time to reference an emissions reduction target against and measure progress.

CDP
CDP (previously the Carbon Disclosure Project). Visit the website.

Climate Value at Risk (CVaR)
CVaR is MSCI's full quantitative scenario analysis solution, designed to provide a forward-looking and return-based valuation assessment of listed equity and debt securities in order to measure climate related risks and opportunities in an investment portfolio.

CRREM
Carbon Risk Real Estate Monitor.

EVIC
Enterprise Value including Cash.

FCA
Financial Conduct Authority. Regulates financial services firms and financial markets in the UK.

Financed emissions
The emissions associated with our assets under management based on attributing a share of the total emissions produced by underlying companies in proportion to the size of the investment we hold.

GHG
Greenhouse Gas emissions.

IIGCC
Institutional Investors Group on Climate Change.

Investment universe
A selection of assets which reflect an investable universe, generally grouped based on the preferences of an investment strategy in terms of, for example, sector, industry, or regional exposure.

IPCC
Intergovernmental Panel on Climate Change IPCC Special Report on the impacts of global warming of 1.5°C. MSCI All Country World Index (ACWI) A stock index designed to track broad global equity market performance. The LPPI Global Equities Fund's comparator benchmark.

ITR
Implied Temperature Rise.

IPV
Investment Pooling Vehicle.

Material Sectors
Material sectors have been defined by IIGCC for consistency in the IIGCC Net Zero Implementation Guide. They are the sectors whose activities make the largest contribution to total emissions globally and which will need to produce the materials, develop the critical technologies, and evolve the lower emitting, more energy efficient processes that achieving a sustainable global economy depends on.

MSCI ACWI
The MSCI All Country World Index is a global equity index of large- and mid-cap stocks.

NACE
A statistical classification in use within the European Community. NZAM Net Zero Asset Manager Commitment. NZIF Net Zero Investment Framework.

Net zero
Achieving an overall balance between man-made emissions (GHG) produced and those taken out of the atmosphere, in order to neutralise the impact of any source of residual emissions that remains unfeasible to be eliminated by permanently removing an equivalent amount of atmospheric carbon dioxide.

NZAM
Net Zero Asset Managers initiative. An international group of asset managers committed to supporting the goal of net zero greenhouse gas emissions by 2050 or sooner, in line with global efforts to limit warming to 1.5 Degrees Celsius; and to supporting investing aligned with net zero emissions by 2050 or sooner.

NGFS
Network for Greening the Financial System. A group of central banks and supervisors willing, on a voluntary basis, to share best practices and contribute to the development of environment and climate risk management in the financial sector and to mobilise mainstream finance to support the transition toward a sustainable economy.

Paris Agreement
United Nations agreement which includes commitments from all countries to reduce their emissions and work together to adapt to the impacts of climate change and calls on countries to strengthen their commitments over time. The Agreement provides a pathway for developed nations to assist developing nations in their climate mitigation and adaptation efforts while creating a framework for the transparent monitoring and reporting of countries' climate goals.

PCAF
The Partnerships for Carbon Accounting Financials.

Portfolio self-decarbonisation
Using portfolio emissions at a point in time to reference an emissions reduction target against and measure progress.

SBTi
The Science Based Targets initiative defines and promotes best practice in science-based target setting. Offering a range of target-setting resources and guidance, the SBTi independently assesses and approves companies' targets in line with its criteria.

Scope 1, 2 and 3
Scope 1, 2 and 3 emissions are a way of categorizing business emissions, accounting for both direct and indirect emitted GHGs. In more details:

- Scope 1 emissions are GHGs released directly from owned or controlled sources of the company.
- Scope 2 emissions are indirect GHGs released from the energy purchased by the company (generation of electricity, heat or steam purchased).

- Scope 3 emissions are indirect GHGs released by the value chain of the company, excluding the Scope 1 and 2 emissions, for both upstream and downstream emissions.

Stewardship
The responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society (UK Stewardship Code 2020).

Total carbon emissions
The sum of all the emissions in the portfolio based on the investor's ownership share.

TPI
Transition Pathway Initiative. Visit the website.

Universal global benchmark
A benchmark stock index which is representative of the global economy, for example the MSCI All Country World Index.

Weighted Average Carbon Intensity (WACI)
Weighted Average Carbon Intensity is the measure of a portfolio's exposure to carbon-intensive companies, expressed as tCO_2e/$m company revenue. Calculated as follows:

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