



**London CIV  
Climate Analytics**

06 February 2024

## Introduction

We are pleased to present the London CIV Climate Analytics report for the **London Borough of Camden Pension Fund**. The report provides an overview of climate-related risks and opportunities according to the recommendations from the Task Force on Climate-related Financial Disclosures (TCFD).

This report aims to inform the development of decarbonisation strategies, internal risk management, and support climate-related disclosures.

Should you require any further information regarding any aspect of your about the report or service, please contact our Client Service Team via e-mail ([clientservice@londonciv.org.uk](mailto:clientservice@londonciv.org.uk)).

London CIV acknowledges the contribution of S&P Trucost Limited (“Trucost”) data and analytics in the production of this report and we draw your attention to the disclaimer on limitations associated with the Trucost data at the end of this report.

Trucost assesses risks relating to climate change, natural resource constraints, and broader environmental, social, and governance (ESG) factors. For more information, visit [www.trucost.com](http://www.trucost.com)



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## Parameters

<b>Fund Name:</b>	<b>LGIM Future World Global Equity Index Fund</b>
<b>Benchmark Name:</b>	<b>MSCI ACWI Index</b>
<b>Holdings Date:</b>	30 June 2023
<b>Analysis Date:</b>	06 February 2024
<b>Currency:</b>	GBP
<b>Sub-fund Value</b>	271 mGBP
<b>Value Covered</b>	269 mGBP

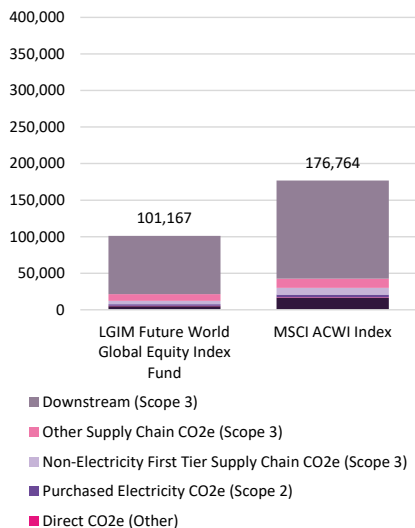
**A note on mapping:** London CIV Climate Analytics leverage the Trucost Core Plus Universe, and the S&P Market Intelligence Capital IQ® platform to map listed equity and corporate fixed income instruments to their issuing entity. Detailed coverage lists can be provided upon request.

## Carbon Footprint

The Task Force for Climate-related Financial Disclosures recommends asset owners to include carbon footprinting information in their reporting to support the assessment and management of climate-related risks.

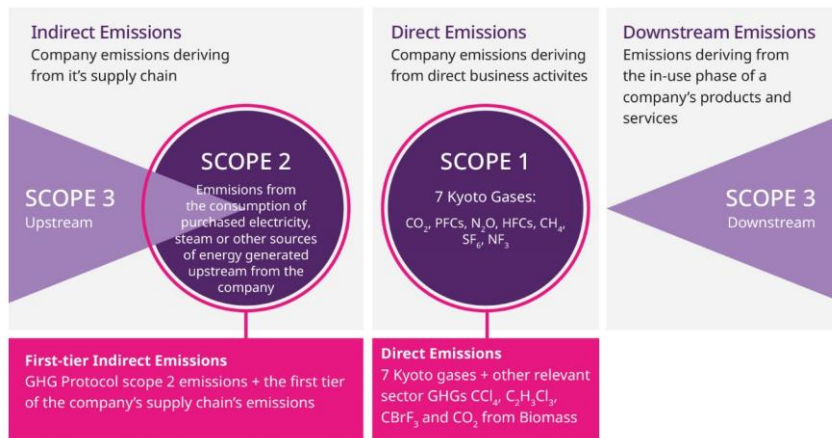
### Total Carbon Footprint (tCO2e)

The chart below shows the total tonnes of carbon dioxide equivalents (tCO2e), broken down by scope.



### Understanding Emissions Scopes

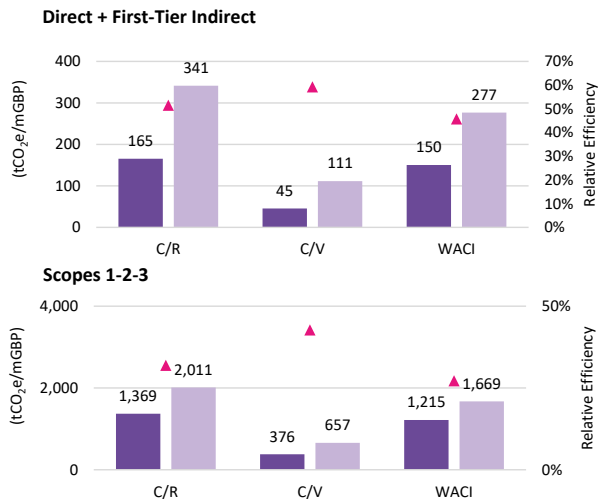
The diagram below summarises the different emissions scopes that can be included in footprint calculations. Restricting the scope to direct operational emissions only (scope 1) removes the risk of double counting carbon but conceals carbon risk exposure present within value chains.



Carbon emissions should be 'normalized' by a financial indicator (either annual revenues or value invested) to provide a measure of carbon intensity. The Task Force for Climate-related Financial Disclosures favours the weighted average carbon intensity as preferred metric.

**Carbon Intensity (tCO2e/mGBP)**

The charts below provide an indication of the carbon intensity using the three main methodologies, carbon-to-revenue (C/R), carbon-to-value (C/V) and weighted-average carbon intensity (WACI). The analysis was completed for two sets of emission scopes.



■ LGM Future World Global Equity Index Fund ■ MSCI ACWI Index ▲ Relative Efficiency

**Carbon Intensity Methodologies**



Impact-based

**1. Carbon to Revenue (C/R)**

Carbon to Revenue provides an indication of carbon efficiency with respect to output (as revenues are closely linked to productivity).

$$\frac{\sum_i^n \left( \frac{C_i}{EVIC_i} * I_i \right)}{\sum_i^n \left( \frac{R_i}{EVIC_i} * I_i \right)}$$

**2. Carbon to Value Invested (C/V)**

Carbon to Value provides an indication of efficiency with respect to shareholder value creation. It is a pertinent indicator of an investor's contribution to climate change.

$$\frac{\sum_i^n \left( \frac{C_i}{EVIC_i} * I_i \right)}{\sum_i^n I_i}$$

Risk-based

**3. Weighted Average Carbon Intensity (WACI)**

The weighted average method seeks to calculate exposure to carbon intensive companies, i.e. is not an additive in terms of carbon budgets.

$$\sum_i^n \left( \frac{C_i}{R_i} * w_i \right)$$

I: Investment Value C: tCO<sub>2</sub>e R: Revenues  
 EV: Enterprise Value w: Weight

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Attribution analysis explains how sector allocation and stock selection contribute to a smaller or larger footprint relative to a benchmark. This can be used to identify opportunities for future footprint reduction. Sector allocation effects are determined using the 11 GICS Sector classifications, and the analysis has been completed based on the Carbon to Revenue Intensity (C/R). Both sets of emission scopes results are presented.

## Direct + First-Tier Indirect

Sector	Weight (Revenue)		Carbon intensity (C/R)		Attribution effect		
	Fund	Benchmark	Fund	Benchmark	Sectoral allocation	Company selection	Total
Communication Services	6%	5%	52	49	0.2%	0.0%	0.2%
Consumer Discretionary	14%	13%	76	94	1.2%	0.7%	1.9%
Consumer Staples	11%	11%	208	258	0.0%	1.6%	1.5%
Energy	4%	10%	798	891	10.8%	1.0%	11.8%
Financials	14%	11%	10	40	1.9%	1.2%	3.1%
Health Care	19%	13%	33	37	5.6%	0.2%	5.9%
Industrials	11%	13%	198	221	-0.8%	0.7%	-0.1%
Information Technology	16%	13%	80	95	2.4%	0.7%	3.1%
Materials	4%	7%	932	1326	9.2%	4.5%	13.8%
Real Estate	1%	1%	133	127	-0.1%	0.0%	-0.1%
Utilities	1%	3%	1466	2336	6.9%	3.5%	10.5%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>165</b>	<b>341</b>	<b>37%</b>	<b>14%</b>	<b>52%</b>

## Scopes 1-2-3

Sector	Weight (Revenue)		Carbon intensity (C/R)		Attribution effect		
	Fund	Benchmark	Fund	Benchmark	Sectoral allocation	Company selection	Total
Communication Services	6%	5%	180	168	0.2%	0.0%	0.2%
Consumer Discretionary	14%	13%	949	1282	0.6%	2.4%	2.9%
Consumer Staples	11%	11%	834	829	-0.1%	0.0%	-0.1%
Energy	4%	10%	6100	6406	14.6%	0.6%	15.2%
Financials	14%	11%	381	448	1.7%	0.5%	2.2%
Health Care	19%	13%	118	125	5.9%	0.1%	6.0%
Industrials	11%	13%	4770	4047	2.3%	-3.9%	-1.6%
Information Technology	16%	13%	806	885	1.9%	0.6%	2.5%
Materials	4%	7%	3405	3717	2.7%	0.6%	3.3%
Real Estate	1%	1%	1239	1015	-0.1%	-0.1%	-0.2%
Utilities	1%	3%	3122	3744	1.0%	0.4%	1.5%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>1369</b>	<b>2011</b>	<b>31%</b>	<b>1%</b>	<b>32%</b>

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## Direct + First-Tier Indirect

Sector	Weight		Carbon intensity (C/V)		Attribution effect		
	Fund	Benchmark	Fund	Benchmark	Sectoral allocation	Company selection	Total
Communication Services	7%	7%	11	12	-0.1%	0.0%	-0.1%
Consumer Discretionary	11%	11%	26	34	-0.1%	0.7%	0.6%
Consumer Staples	7%	7%	83	126	0.0%	2.9%	2.8%
Energy	2%	5%	508	654	14.8%	2.1%	16.9%
Financials	15%	14%	3	11	1.0%	1.1%	2.1%
Health Care	14%	12%	12	13	2.1%	0.1%	2.2%
Industrials	8%	10%	71	93	-0.3%	1.6%	1.3%
Information Technology	29%	24%	12	16	4.4%	1.1%	5.5%
Materials	3%	5%	364	677	9.1%	7.8%	16.9%
Real Estate	2%	2%	15	17	-0.3%	0.0%	-0.2%
Utilities	2%	3%	373	721	6.7%	4.7%	11.4%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>45</b>	<b>111</b>	<b>37%</b>	<b>22%</b>	<b>59%</b>

## Scopes 1-2-3

Sector	Weight		Carbon intensity (C/V)		Attribution effect		
	Fund	Benchmark	Fund	Benchmark	Sectoral allocation	Company selection	Total
Communication Services	7%	7%	40	41	-0.1%	0.0%	-0.1%
Consumer Discretionary	11%	11%	329	460	-0.1%	2.3%	2.2%
Consumer Staples	7%	7%	332	405	0.1%	0.8%	0.9%
Energy	2%	5%	3885	4698	18.7%	2.0%	20.7%
Financials	15%	14%	97	123	0.9%	0.6%	1.5%
Health Care	14%	12%	44	45	2.2%	0.0%	2.2%
Industrials	8%	10%	1710	1692	3.1%	-0.2%	2.9%
Information Technology	29%	24%	120	150	4.0%	1.3%	5.3%
Materials	3%	5%	1328	1898	3.4%	2.4%	5.8%
Real Estate	2%	2%	139	135	-0.3%	0.0%	-0.3%
Utilities	2%	3%	794	1156	0.9%	0.8%	1.8%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>25019</b>	<b>657</b>	<b>33%</b>	<b>10%</b>	<b>43%</b>

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## Direct + First-Tier Indirect

Sector	Weight		Carbon intensity (WACI)		Attribution effect		
	Fund	Benchmark	Fund	Benchmark	Sectoral allocation	Company selection	Total
Communication Services	7%	7%	52	52	-0.1%	0.0%	-0.1%
Consumer Discretionary	11%	11%	91	122	-0.1%	1.3%	1.1%
Consumer Staples	7%	7%	240	268	0.0%	0.7%	0.7%
Energy	2%	5%	818	933	7.2%	0.7%	7.9%
Financials	15%	14%	14	38	0.9%	1.3%	2.2%
Health Care	14%	12%	55	59	1.8%	0.2%	2.0%
Industrials	8%	10%	232	259	-0.1%	0.8%	0.7%
Information Technology	29%	24%	69	78	3.7%	0.9%	4.6%
Materials	3%	5%	906	1343	6.9%	4.4%	11.3%
Real Estate	2%	2%	137	149	-0.2%	0.1%	-0.1%
Utilities	2%	3%	1889	2730	10.8%	4.6%	15.4%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>150</b>	<b>277</b>	<b>31%</b>	<b>15%</b>	<b>46%</b>

## Scopes 1-2-3

Sector	Weight		Carbon intensity (WACI)		Attribution effect		
	Fund	Benchmark	Fund	Benchmark	Sectoral allocation	Company selection	Total
Communication Services	7%	7%	185	186	-0.1%	0.0%	-0.1%
Consumer Discretionary	11%	11%	724	860	-0.1%	0.9%	0.8%
Consumer Staples	7%	7%	1139	1063	0.1%	-0.3%	-0.3%
Energy	2%	5%	6425	7187	10.0%	0.7%	10.8%
Financials	15%	14%	683	799	0.6%	1.0%	1.6%
Health Care	14%	12%	182	188	2.1%	0.1%	2.1%
Industrials	8%	10%	3962	3831	2.6%	-0.7%	1.9%
Information Technology	29%	24%	1091	1320	1.1%	4.0%	5.1%
Materials	3%	5%	3466	3843	2.3%	0.6%	3.0%
Real Estate	2%	2%	544	567	-0.2%	0.0%	-0.2%
Utilities	2%	3%	3388	4177	1.8%	0.7%	2.5%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>1215</b>	<b>1669</b>	<b>20%</b>	<b>7%</b>	<b>27%</b>

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The largest contributors to the portfolio's carbon intensity are shown below. While the first table shows the top contributors to the portfolio carbon to revenue intensity according to the two sets of emissions perimeters. The list has been determined on the basis of the Carbon to Revenue Intensity (C/R).

## Top C/R Contributors: Direct + First-Tier Indirect

Name	Sector	Weight (%)	C/R intensity Scopes D+FTI tCO2e/GBPm	C/R intensity Scopes 1-2-3 tCO2e/GBPm	Contribution to Carbon Intensity Scopes D+FTI	Disclosure	Climate 100+
Holcim Ltd	Materials	0.0%	6643	6814	-3.76%	Full Disclosure	Yes
Shell plc	Energy	0.2%	798	6488	-2.53%	Partial Disclosure	Yes
Chevron Corporation	Energy	0.1%	985	7063	-1.54%	Partial Disclosure	Yes
Valero Energy Corporation	Energy	0.0%	933	4553	-1.50%	Partial Disclosure	Yes
South32 Limited	Materials	0.0%	7664	32788	-1.48%	Partial Disclosure	Yes
Petrobras SA	Energy	0.1%	1397	9377	-1.38%	Full Disclosure	Yes
Waste Management, Inc.	Industrials	0.1%	2320	1433	-1.30%	Full Disclosure	No
BP p.l.c.	Energy	0.1%	733	5471	-1.18%	Partial Disclosure	Yes
Duke Energy Corporation	Utilities	0.1%	4680	5461	-1.14%	Full Disclosure	Yes
The Southern Company	Utilities	0.1%	5105	6296	-1.13%	Full Disclosure	Yes

## Top C/R Contributors: Scopes 1-2-3

Name	Sector	Weight (%)	C/R intensity Scopes D+FTI tCO2e/GBPm	C/R intensity Scopes 1-2-3 tCO2e/GBPm	Contribution to Carbon Intensity Scopes 1-2-3	Disclosure	Climate 100+
Cummins Inc.	Industrials	0.1%	147	65988	-6.12%	Full Disclosure	Yes
Siemens Energy AG	Industrials	0.0%	102	54592	-3.09%	Full Disclosure	No
Shell plc	Energy	0.2%	798	6488	-2.48%	Partial Disclosure	Yes
Trane Technologies plc	Industrials	0.1%	166	35622	-2.05%	Full Disclosure	Yes
General Electric Company	Industrials	0.2%	90	9485	-1.90%	Full Disclosure	Yes
Emerson Electric Co.	Industrials	0.1%	206	44000	-1.77%	Full Disclosure	No
BHP Group Limited	Materials	0.2%	490	11846	-1.70%	Full Disclosure	Yes
Airbus SE	Industrials	0.1%	80	10442	-1.55%	Full Disclosure	Yes
Siemens Aktiengesellschaft	Industrials	0.2%	70	8524	-1.38%	Full Disclosure	No
NVIDIA Corporation	Information Technology	2.4%	67	5532	-1.33%	Full Disclosure	No



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## Top C/V Contributors: Direct + First-Tier Indirect

Name	Sector	Weight (%)	C/R intensity Scopes D+FTI tCO2e/GBPm	C/R intensity Scopes 1-2-3 tCO2e/GBPm	Contribution to Carbon Intensity Scopes D+FTI	Disclosure	Climate 100+
Holcim Ltd	Materials	0.0%	6643	6814	-3.80%	Full Disclosure	Yes
Swiss Re AG	Consumer Staples	0.2%	798	6488	-3.00%	Partial Disclosure	No
PICC Property and Casualty Comp	Materials	0.0%	933	4553	-1.78%	Modelled	No
Adidas AG	Communication Service	0.1%	985	7063	-1.71%	Partial Disclosure	No
BASF SE	Industrials	0.0%	7664	32788	-1.50%	Full Disclosure	Yes
Beiersdorf Aktiengesellschaft	Health Care	0.1%	1397	9377	-1.48%	Partial Disclosure	No
Deutsche Post AG	Financials	0.1%	733	5471	-1.42%	Partial Disclosure	No
Deutsche Telekom AG	Energy	0.0%	864	1704	-1.29%	Full Disclosure	No
Bayer Aktiengesellschaft	Consumer Staples	0.1%	2320	1433	-1.27%	Partial Disclosure	Yes
Fresenius SE & Co. KGaA	Consumer Discretionary	0.1%	5105	6296	-1.11%	Partial Disclosure	No

## Top C/V Contributors: Scopes 1-2-3

Name	Sector	Weight (%)	C/R intensity Scopes D+FTI tCO2e/GBPm	C/R intensity Scopes 1-2-3 tCO2e/GBPm	Contribution to Carbon Intensity Scopes 1-2-3	Disclosure	Climate 100+
Cummins Inc.	Industrials	0.1%	147	65988	-6.19%	Full Disclosure	Yes
Siemens Energy AG	Industrials	0.0%	102	54592	-3.15%	Full Disclosure	No
Shell plc	Energy	0.2%	798	6488	-2.95%	Partial Disclosure	Yes
General Electric Company	Industrials	0.2%	90	9485	-2.05%	Full Disclosure	Yes
Trane Technologies plc	Industrials	0.1%	166	35622	-2.05%	Full Disclosure	Yes
Emerson Electric Co.	Industrials	0.1%	206	44000	-1.77%	Full Disclosure	No
BHP Group Limited	Materials	0.2%	490	11846	-1.73%	Full Disclosure	Yes
Airbus SE	Industrials	0.1%	80	10442	-1.66%	Full Disclosure	Yes
Chevron Corporation	Energy	0.1%	985	7063	-1.46%	Partial Disclosure	Yes
Siemens Aktiengesellschaft	Industrials	0.2%	70	8524	-1.45%	Full Disclosure	No

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## Top WACI Contributors: Direct + First-Tier Indirect

Name	Sector	Weight (%)	C/R intensity Scopes D+FTI tCO2e/GBPm	C/R intensity Scopes 1-2-3 tCO2e/GBPm	Contribution to Carbon Intensity Scopes D+FTI	Disclosure	Climate 100+
NextEra Energy, Inc.	Utilities	0.2%	3565	3718	-4.50%	Partial Disclosure	Yes
Duke Energy Corporation	Utilities	0.1%	4680	5461	-2.15%	Full Disclosure	Yes
Holcim Ltd	Materials	0.0%	6643	6814	-2.05%	Full Disclosure	Yes
The Southern Company	Utilities	0.1%	5105	6296	-1.98%	Full Disclosure	Yes
Waste Management, Inc.	Industrials	0.1%	2320	1433	-1.85%	Full Disclosure	No
Linde plc	Materials	0.2%	1774	2558	-1.83%	Full Disclosure	No
Nestle SA	Consumer Staples	0.6%	530	1256	-1.41%	Full Disclosure	Yes
Taiwan Semiconductor Manufacturir	Information Technology	1.0%	333	480	-1.28%	Full Disclosure	No
Xcel Energy Inc.	Utilities	0.0%	4309	5184	-1.21%	Partial Disclosure	Yes
Shin-Etsu Chemical Co., Ltd.	Materials	0.1%	1487	1357	-1.01%	Full Disclosure	No

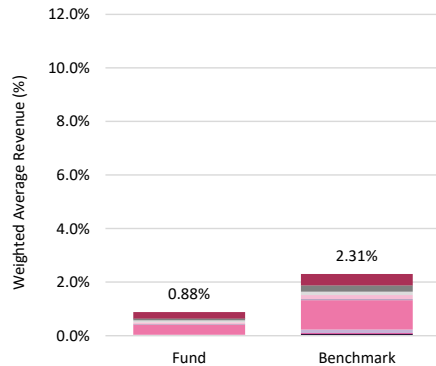
## Top WACI: Contributors Scopes 1-2-3

Name	Sector	Weight (%)	C/R intensity Scopes D+FTI tCO2e/GBPm	C/R intensity Scopes 1-2-3 tCO2e/GBPm	Contribution to Carbon Intensity Scopes 1-2-3	Disclosure	Climate 100+
NVIDIA Corporation	Information Technology	2.4%	67	5532	-8.58%	Full Disclosure	No
Broadcom Inc.	Information Technology	0.8%	81	5567	-2.95%	Full Disclosure	No
Cummins Inc.	Industrials	0.1%	147	65988	-2.93%	Full Disclosure	Yes
Trane Technologies plc	Industrials	0.1%	166	35622	-2.41%	Full Disclosure	Yes
Banco Bradesco S.A.	Financials	0.0%	9	118352	-2.38%	Partial Disclosure	No
Emerson Electric Co.	Industrials	0.1%	206	44000	-1.92%	Full Disclosure	No
BHP Group Limited	Materials	0.2%	490	11846	-1.70%	Full Disclosure	Yes
Advanced Micro Devices, Inc.	Information Technology	0.4%	88	5478	-1.50%	Full Disclosure	No
The Procter & Gamble Company	Consumer Staples	0.8%	190	3543	-1.49%	Full Disclosure	Yes
General Electric Company	Industrials	0.2%	90	9485	-1.16%	Full Disclosure	Yes

## Stranded Assets

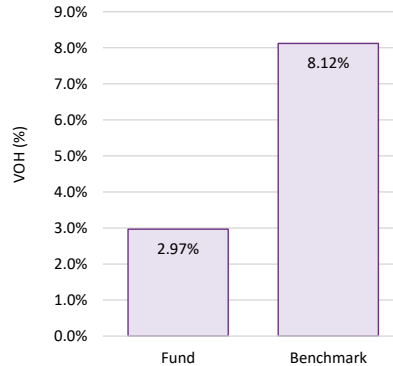
The reduction in greenhouse gas emissions implies movement away from fossil fuel energy and related physical assets. London CIV measures exposure to such assets by calculating the combined value of holdings and weighted revenue exposure of companies with business activities in either fossil fuel extraction or fossil fuel energy generation industries. This helps to identify potential stranded assets that may become more apparent as economies move towards a low carbon economy.

### Revenue Weighted Fossil Fuel Exposure



- Bituminous coal and lignite surface mining
- Tar sands extraction
- Drilling oil and gas wells
- Support activities for oil and gas operations
- Petroleum Power Generation

### Value of Holdings Fossil Fuel Exposure



- Bituminous coal underground mining
- Crude petroleum and natural gas extraction
- Natural gas liquid extraction
- Coal Power Generation
- Natural Gas Power Generation

### Fossil fuel Exposure Metrics

#### 1. Revenue Weighted Exposure

Weighted average exposure to the revenues derived from fossil fuel activities.

$$Exposure = \sum_i^n [Revenue\% \text{ activity}_{ref,i} * weight_i]$$

#### 2. Value of Holdings Exposure

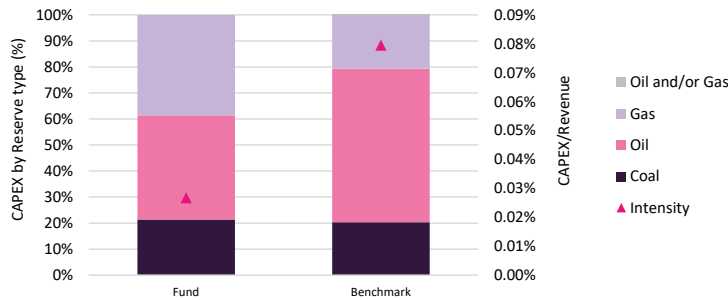
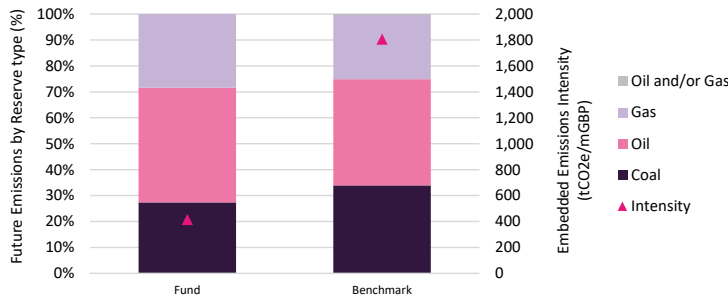
Combined weight of companies in the fund deriving any revenues from fossil fuel related activities.

$$Exposure = \sum_i^n [Weight_i]$$

**Together, these metrics provide a useful range of a fund's potential exposure to stranded assets.**

London CIV also measures 'Stranded Assets' exposure by estimating the carbon emissions embedded within the fossil fuel reserves of companies and their capital expenditures towards fossil-fuel related activities.

**Future Emissions and CAPEX by Reserve Type**



**Understanding Stranded Assets**

The total potential emissions of existing known fossil fuel reserves far vastly exceed the global carbon budget that will limit global temperatures to 1.5°C of warming above pre-industrial levels. If this is the case, the market values of companies holding reserves may be overstated because they are based in part on the present value of these reserves assuming that they can be fully utilized. Industry experts may therefore refer to these assets as 'Stranded Assets'.

The CAPEX/revenue ratio shows how aggressively the companies may be re-investing revenues back into fossil assets. A high ratio potentially indicates that companies within the fund are investing heavily. In the long term, this could deteriorate their ability to generate new revenues if these assets become stranded.

1 Carbon Footprint

2 Stranded Assets

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The tables below show the largest contributors towards each fund's (1) Weighted Average Fossil Fuel Revenues; and (2) Future emissions. The company level fossil-fuel related exposure and CAPEX/Revenue ratio are also shown in the adjacent columns.

**Top Contributors - Weighted Average Fossil Fuel Revenues**

Name	Sector	Weight %	Future emissions (tCO2e)	CAPEX/Revenue	Fossil Fuel Revenue	Weighted Fossil Fuel Revenue	Climate 100+
ConocoPhillips	Energy	0.11%	2281.83	11%	100%	0.115%	Yes
NextEra Energy, Inc.	Utilities	0.20%	0.00	0%	46%	0.091%	Yes
Schlumberger Limited	Energy	0.08%	0.00	0%	57%	0.044%	No
Pioneer Natural Resources Company	Energy	0.04%	798.47	18%	100%	0.044%	No
Shell plc	Energy	0.18%	1763.36	7%	24%	0.042%	Yes
Chevron Corporation	Energy	0.14%	2222.19	0%	28%	0.041%	Yes
EOG Resources, Inc.	Energy	0.03%	1465.26	19%	100%	0.034%	No
Duke Energy Corporation	Utilities	0.07%	0.00	0%	47%	0.034%	Yes
BP p.l.c.	Energy	0.10%	6433.39	6%	30%	0.031%	Yes
BHP Group Limited	Materials	0.19%	5997.94	1%	15%	0.029%	Yes

**Top Contributors - Future Emissions**

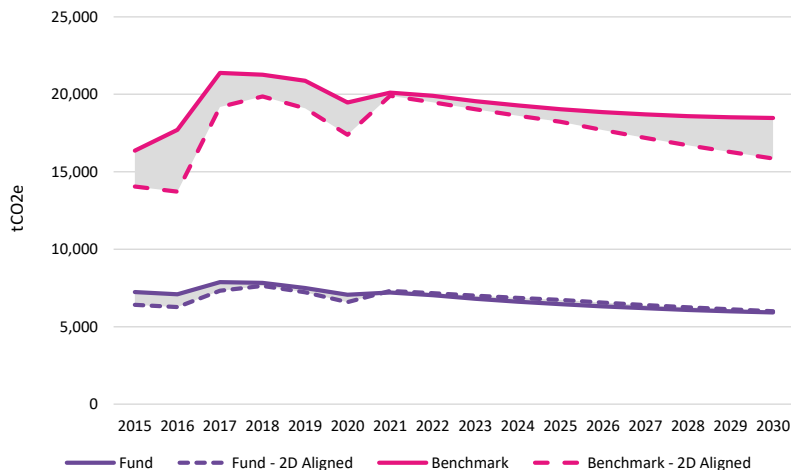
Name	Sector	Weight %	Future emissions (tCO2e)	CAPEX/Revenue	Fossil Fuel Revenue	Weighted Fossil Fuel Revenue	Climate 100+
BHP Group Limited	Materials	0.19%	5997.94	1%	15%	0.029%	Yes
BP p.l.c.	Energy	0.10%	6433.39	6%	30%	0.031%	Yes
Petrobras SA	Energy	0.08%	4022.13	0%	8%	0.006%	Yes
ConocoPhillips	Energy	0.11%	2281.83	11%	100%	0.115%	Yes
TotalEnergies SE	Energy	0.09%	4323.02	4%	12%	0.011%	Yes
Teck Resources Limited	Materials	0.02%	2878.10	10%	52%	0.008%	Yes
SAUDI ARABIAN OIL COMPANY	Energy	0.03%	99537.95	6%	49%	0.015%	Yes
Shell plc	Energy	0.18%	1763.36	7%	24%	0.042%	Yes
Chevron Corporation	Energy	0.14%	2222.19	0%	28%	0.041%	Yes
Origin Energy Limited	Utilities	0.01%	768.46	0%	36%	0.004%	Yes

## Net-Zero Alignment

The Paris Agreement calls for coordinated efforts to ensure that global temperatures rise well below 2°C. As such, a growing number of financial institutions, including the world’s largest investment managers are now making commitments to set Paris-aligned targets. The following assessment tracks fund GHG emission trajectories against the goal of limiting global warming to below 2°C.

### Projected GHG Emissions Trajectories

The chart below examines the adequacy of GHG emissions reductions over time in meeting a 2°C carbon budget. It tracks past and future company emissions levels.



**Why Net-Zero ?**

The Intergovernmental Panel on Climate Change (IPCC) has advised that limiting global temperature rise to 1.5-degree Celsius above pre-industrial levels would substantially reduce the impacts of climate change.

Scenarios assessed by the IPCC have determined that to meet this 1.5°C target, global carbon dioxide emissions would need to reach 'Net-zero' by 2050. Meeting a 2°C target requires carbon emissions to reach 'Net-Zero' by 2070.

The table below displays the fund and benchmark performance against their respective 2°C carbon budget.

	Fund	Benchmark
Coverage Rate	100%	99.28%
Tonnes Carbon (Under)/Over	1,656	27,141
Carbon/mInvested (Under)/Over	6	101
Percent of Total (Under)/Over	1%	8%

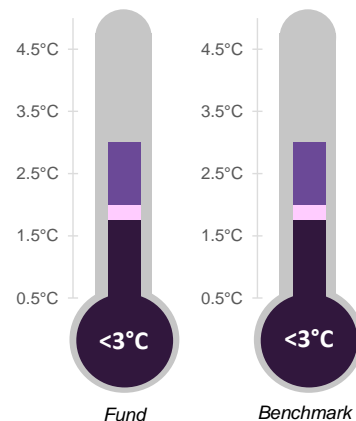
Companies are evaluated on the basis of their alignment with sectoral decarbonisation pathways. This assessment enables the calculation of an implicit temperature (°C) at company, sub-industry, and fund level based on performance over the period assessed.

**Sub-Industry Carbon Budget Assessment**

	Temperature (°C)		2°C Emissions Gap (tCO2e)		Well below* 2°C Emissions Gap (tCO2e)	
	Fund	Benchmark	Fund	Benchmark	Fund	Benchmark
	<b>SDA</b>					
Power Generation	<2°C	<2°C	- 3,207	- 8,918	5,749	14,175
Cement	<1.75°C	<2°C	- 1,259	- 1,599	254	2,254
Steel		>2.7°C	-	2,541	-	5,288
Airlines	<2.7°C	<2.7°C	18	118	384	500
Aluminum		<1.75°C	-	513	-	514
<b>GEVA</b>						
Communication Services	<3°C	<4°C	359	389	468	498
Consumer Discretionary	<1.5°C	<1.5°C	- 1,719	- 1,842	- 1,273	- 1,221
Consumer Staples	<4°C	<4°C	1,179	1,683	1,474	2,114
Energy	>5°C	>5°C	8,083	33,373	8,648	35,878
Financials	<1.5°C	<3°C	- 163	33	111	89
Health Care	<1.5°C	<1.5°C	- 385	- 280	185	87
Industrials	<1.5°C	<1.5°C	- 503	- 2,982	0	1,762
Information Technology	<1.5°C	<1.5°C	- 1,363	- 1,889	965	1,360
Materials	<3°C	<3°C	419	6,918	1,583	9,888
Real Estate	<1.5°C	<1.5°C	- 316	- 121	250	45
Utilities	<3°C	<3°C	514	231	688	1,965

\*1.75°C for SDA Sub-industries, 1.5°C for GEVA Sub-industries

**Implicit Temperatures (°C)**



**Net-Zero Alignment - Best Performers**

Name	Weight	Temp. (°C)	Contribution 2°C (tCO2e)
Amazon.com, Inc.	1.8%	<1.5°C	- 1,640
ENGIE SA	0.0%	<1.5°C	- 1,556
Holcim Ltd	0.0%	<1.5°C	- 1,519
SK hynix Inc.	0.1%	<1.5°C	- 1,154
Enel SpA	0.1%	<1.5°C	- 1,105

**Net-Zero Alignment - Worst Performers**

Name	Weight	Temp. (°C)	Contribution 2°C (tCO2e)
Chevron Corporation	0.1%	>5°C	1,449
Origin Energy Limited	0.0%	>5°C	1,179
Shell plc	0.2%	>5°C	1,097
Petrobras SA	0.1%	>5°C	787
Marathon Petroleum Corporation	0.0%	>5°C	692

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