London CIV TCFD Report 2023

For the reporting year ending 31st December 2022

Delivering Sustainable Growth

London CIV

About London CIV: Our Purpose and Vision

London CIV was formed in 2015 and manages the investment of the pension assets of the 32 Local Government Pension Scheme (LGPS) Funds in London. We are one of eight LGPS pools. These Partner Funds are also our shareholders and we work collaboratively to deliver our agreed purpose which is To be the LGPS pool for London to enable the London Local authorities to achieve their pooling requirements.

Our updated statement of Investment Beliefs sets out how we work in collaboration with clients to improve investment returns and manage risk. It articulates how we set out to achieve our commitment to be responsible investors and good stewards. Our vision statement is To be the best in class asset pool delivering value for Londoners through long term sustainable investment strategies.

Our Partner Funds retain responsibility for their asset allocation and investment strategy, and thus exposure to environmental, social and governance (ESG) risks. We see our role as helping them implement their strategy and to understand and manage the associated risks, whilst also addressing global issues and helping to drive progress.

Contents

Foreword

By the end of the COP26 summit in Glasgow last year, there was a real sense of optimism and progress. Hundreds of countries pledged to halt deforestation, reduce methane emissions, and phase down coal and fossil fuel subsidies, while leaders across the world put forward new or updated emissions targets, covering around 90% of the world's greenhouse gas emissions.

If they are met in full and on time, these targets would hold the rise in global temperatures to 1.8°C by the end of the century - marking the first-time governments had come forward with targets of sufficient ambition to keep global warming below 2°C.

But in 2022, the fossil fuel empire struck back. Russia's invasion of Ukraine sparked a global energy crisis and triggered a surge in oil and gas prices, fuelling record profits for the industry[1]. Energy companies capitalised on these earnings by completing share buybacks and increasing dividends, which in turn rewarded investors with strong returns in an otherwise dismal stock market. Naturally, this provided Oil & Gas companies with a sense of vindication, and a revived mandate to increase investments towards fossil fuel capacity expansion - far beyond the boundaries of the Paris Agreement.

Headlines in Ukraine also eclipsed the climate disasters experienced in various parts of the world. Pakistan suffered catastrophic flooding which affected more than 33 million people. Dangerous heatwaves and droughts scorched parts of China and Southern Europe. In the UK, temperatures rose above 40°C for the first time, and in the US Hurricane Ian became the deadliest hurricane since Katrina in 2005. These events, including many others have placed 2022 as the most expensive year for climate-related disasters in history[2]. "We are on a highway to climate hell with our foot on the accelerator", said the UN secretary general, António Guterres.

The climate equation remains simple: to keep the window open for 1.5°C, we must cut our emissions in half by 2030, but last year global greenhouse gas emissions continued to increase to new record levels. Despite the urgency of the problem, this year's COP27 climate summit in Egypt ended in 'disappointment' for many, as it failed to deliver an agreement on how to phase out fossil fuels. The optimistic view, however, is that the war in Ukraine has lent a new sense of urgency to the transition away from oil, gas, and coal. Particularly noteworthy were the International Energy Agency's findings that policy responses are fact-tracking the emergence of a clean energy economy[3]. For instance, the United States passed the biggest piece of federal legislation to combat climate change in the country's history, and the EU Commission also stepped up its green industrial policy, unveiling details of its Net Zero Industry Act designed to attract investments and create better conditions and market access for clean tech in the European Union.

Today, investors know that the climate crisis poses a material risk to their portfolios, and the challenging market conditions of last year, amplified by the geopolitical and macroeconomic uncertainty, is only a temporary setback, not an irreversible trend. The tectonic shift to sustainable investing is set to endure. Companies that are on the pathway to creating a net-zero economy will thrive and those who are left behind may not survive, while demand for climate-relevant investment solutions will only escalate.

Climate change risk management forms a critical part of our clients' fiduciary duty and is a strategic investment priority. Assessing the potential financial impact of climate-related risks and opportunities on an investment portfolio is an essential part of the Task Force on Climate Related Financial Disclosures ("TCFD") framework which we have now been reporting against for the past three years. Previous assessments have highlighted a positive climate performance, but despite progress on climate risk mitigation, our investments were not compatible with a warming below 2°C.

This year, our efforts focused on enhancing existing products and escalating our engagement activity with oil and gas companies. We've also sharpened processes for monitoring investment managers and tracking the climate performance of our funds, as well as launched the 'Climate Analytics Service' – a service designed to support our Partner Funds with climate-related disclosures and help inform the development of decarbonisation strategies, internal risk management, and strategic asset allocation.

Ambition and rhetoric must result in action, which is why we do not view this report as an endpoint. Rather, we consider the adoption of effective climate risk management, comprehensive governance processes, and techniques such as scenario analysis to be as integral to the implementation of the TCFD recommendations as the disclosures themselves. This report therefore serves as a useful framework to describe our journey towards improving the resilience of our funds to climate-related risks. We will continue to prioritise climate change issues at London CIV and aim for improved disclosure in the next reporting year.

Gustave Loriot, Responsible Investment Manager

1 "Oil and gas industry earned $4 trillion last year, says IEA chief", Reuters, February 14, 2023.
2 "Counting The Cost, A year of climate breakdown", CA, December 2022.
3 "Renewables 2022 – Analysis and Forecast to 2027" International Energy Agency, December 2022.

Key Facts

For the reporting year ending 31st December 2022

£25.8bn
Pooled through London CIV

£45bn
of assets held by Partner Funds

66%
AUM covered in Climate Risk analysis[4]

Net Zero
by 2040 and operationally by 2025

3.14%
of London CIV's Total AUM allocated towards Renewable Energy Infrastructure

36.2%
Carbon Intensity Reduction achieved in 2022 across Direct + First-Tier Indirect emissions[5]

43%
Relative climate performance of the LCIV Consolidated Pool against the MSCI World[6]

3.18%
The Fossil Fuel Exposure was reduced by 62% to reach 3.18% in 2022[7]

2-3°C
London CIV is currently aligned with a 2-3°C warming scenario. Emissions are approximately 5% higher than the emissions allowed for a 2°C carbon balance

24%
Passive Funds managed by BlackRock and LGIM (Pooled) are on average 24% more carbon intensive than funds held on the London CIV ACS.

4 Covers the following asset classes (1) Listed Equity, (2) Fixed Income - Corporate. Uncalled capital from Private markets funds commitments have been excluded.
5 Emissions increased by 41.4% off the basis of Scope 1-2-3 emissions in 2022. For more information, please refer to the Metrics and Targets section of this report.
6 Measured as a function of the Direct + First-Tier Indirect Weighted Average Carbon Intensity.
7 Calculated as Value of Holdings Exposure. For more information, please refer to the Metrics and Targets section of this report.

The Task Force on Climate-Related Financial Disclosures

The Task Force on Climate-Related Financial Disclosures was established in 2015 by the Financial Stability Board ("FSB") at the request of the G20 to review how the reporting on climate-related issues in financial reporting could be improved.

In June 2017, the TCFD published its final recommendations, providing a framework for financial institutions and non-financial organisations alike to reflect and report on their climate-related risks and opportunities. As of September 2022, the Task Force had over 3,960 supporters globally, including 1539 financial institutions who are responsible for assets of $220 trillion[8]. Perhaps most importantly, multiple jurisdictions have proposed or finalized laws and regulations to require disclosure aligned with the TCFD recommendations — In November 2020, the UK's Chancellor of the Exchequer announced the UK's intention to mandate climate disclosures by large companies and financial institutions by 2025, and in December 2021, the FCA published a policy statement introducing TCFD-aligned disclosure requirements for asset managers, life insurers, and FCA-regulated pension providers. For the London CIV, these climate-related disclosure rules will apply from the 1st of January 2023.

The TCFD recommendations provide a framework organised around four themes: governance, strategy, risk management, and metrics and targets. (Figure 1). The following report has been structured to provide disclosures across each of these topics.

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

Governance

The organization's governance around climate-related risks and opportunities

Strategy

The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning

Risk Management

The processes used by the organization to identify, assess, and manage climate-related risks

Metrics and Targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities

8 Task Force on Climate-Related Financial Disclosures 2022 Status Report – September 2022

Governance

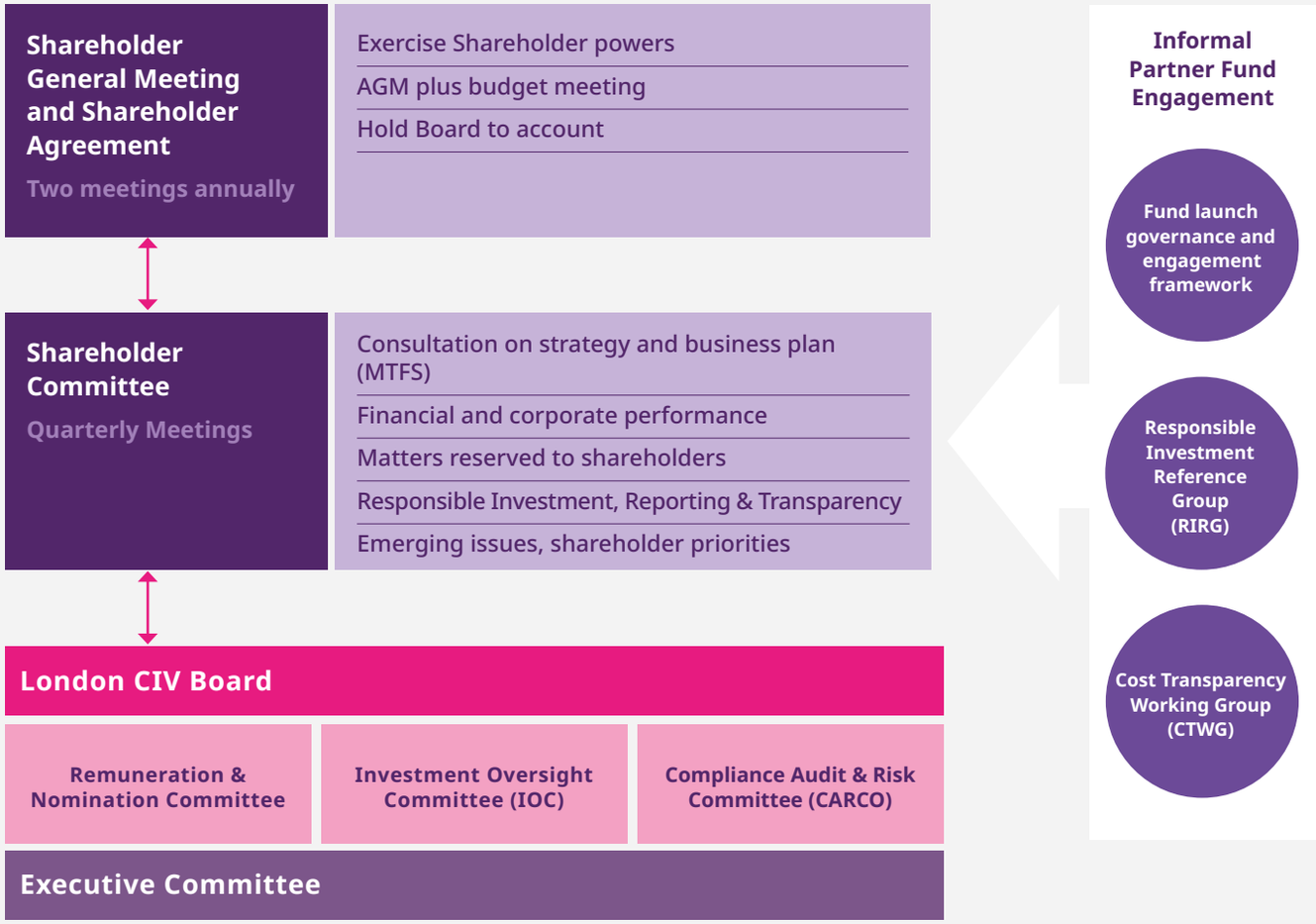
Governance

The TCFD's recommendations highlight the importance of good governance structures to ensure effective oversight of climate-related risks and opportunities.

As asset owner signatories to the UK Stewardship Code, London CIV are committed to ensuring that our governance structures and arrangements for strategic decision-making and leadership achieve best practice stewardship for the benefit of Partner Funds and stakeholders. Our governance structure supports formal shareholder input through general meetings, the shareholder agreement, and a representative Shareholder Committee. This is complemented by client engagements during the development of investment funds and a Responsible Investment Reference Group ("RIRG"). It is also designed to ensure that the Board remain accountable for overall strategy and critical RI issues such as climate change risk. This governance structure is summarised as follows:

London CIV committee structure

Figure 2: London CIV committee structure and oversight of climate-related risks



Governance continued

A. Describe the Board's oversight of climate-related risks and opportunities.

The London CIV Board approves and is collectively accountable for London CIV's **Climate Change Policy**, **Responsible Investment Policy**, and **Stewardship Policy**. The Executive Investment Committee ("EIC") oversees the implementation of London CIV's investment strategy.The Shareholder Committee reports back to the Board, the EIC, and CARCO on a quarterly basis.

The Board also executes responsibilities for climate-related oversight via the review of key climate related disclosures such as TCFD reporting, and the approval of emissions reduction targets. It delegates the implementation of London CIV's **Climate Change Policy** and other responsible investment activities to the Executive Directors responsible for administering the strategy.

Informal pool member engagement groups such as the Responsible Investment Reference Group ("RIRG") also support climate-related risk oversight. The RIRG includes representatives from Partner Funds , London CIV, and an appointed ESG Champion from the Board. The group meets monthly to discuss a number of ESG issues with a specific focus on climate change risk.

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

The Executive Committee, led by the Chief Executive Officer ("CEO"), is responsible for the day-to-day management of London CIV, including the delivery and development of London CIV's climate change strategy. The Chief Investment Officer ("CIO") is responsible for managing the integration of climate change into fund design, implementation, and overall investment decision making.

Operational accountability is led by the Head of Responsible Investment ("HRI") who reports to the CIO. The integration and mitigation of climate change risk is explicit in the roles of all members of the Investment team. To ensure adequate management of climate-related financial risks, the London CIV has also now expanded the dedicated Responsible Investment ("RI") team to three members of staff to lead climate risk engagements with investment managers. The RI team monitors climate performance across key exposure and impact metrics, and meets with fund managers on a quarterly basis to monitor compliance with London CIV's **Climate Change Policy** and **Stewardship Policy**. These efforts are further supported by an outsourced Voting and Engagement service provider.

> The Responsible Investment Reference Group has been a critical platform for Partner Funds to provide feedbacks and collaborate to enhance ESG practices. It provides a level of assurance to ensure London CIV's actions align with clients' views.

Councillor Robert Chapman

Chair of Hackney Pensions Committee, Cabinet Member for Finance at London Borough of Hackney, Vice Chair of the Local Authority Pension Fund Forum (LAPFF), Shareholder Committee Member, Chair of the RIRG at London CIV

Camdon Lock

Strategy

Strategy

The TCFD's recommendations call on asset owners to describe how climate-related risks and opportunities are factored into investment strategies.

The London CIV's vision is to be the best-in-class asset pool delivering value for Partner Funds and its beneficiaries through long-term sustainable investment strategies. LGPS funds have long-term investment horizons and allocate capital across a wide range of asset classes and sectors. Given the prolonged timeframes during which climate risks could materialize, Partner Funds are acutely vulnerable to the systemic disruptions that climate change will cause in ecosystems, societies, and economies. Addressing climate-related financial risks therefore forms a critical part of their fiduciary duty.

For instance, the interplay between transition and physical risks highlights the importance for trustees to adopt climate scenario analysis models within risk management practices. This can help inform projected fund performance into the short, medium, and long-term of various scenarios of warming or climate transition. In turn, these results can help to build climate-resilient strategies and ensure defined members' benefits are delivered over these timescales.

As significant asset owners, we also have a key role to play in accelerating the transition to a net-zero economy. This is because systemic risks associated with climate change seriously threaten the long-term socio-economic stability of the world in which our beneficiaries live in. Mitigating climate-related financial exposure in our clients' portfolios by investing in line with the 1.5°C objectives of the Paris agreement is therefore entirely consistent with our clients' fiduciary duty.

The Intergovernmental Panel on Climate Change ("IPCC") Special Report on the impacts of global warming of 1.5°C has clearly indicated that faster CO2 reductions wherein (CO2 emissions decline from 2020 to reach net zero in 2040) will result in a higher probability of limiting warming to 1.5°C[9]. Accordingly, we committed to net zero GHG emissions by 2040, becoming the first Local Authority pension pool to do so. To achieve this, the progress which will be made over the next ten years is critical. We have set interim targets which require an average carbon intensity reduction of 35% by 2025 (relative to 2020), and of 60% by 2030 across funds invested via the London CIV Fund range. Of course, we recognise that the targets of our Partner Funds may vary. As such, our role as a local authority pension pool is to provide investment solutions which help our 32 Partner Funds meet their own net-zero or climate objectives.

Londin Borough of Greenwich

9 IPCC Special Report on the impacts of global warming of 1.5°C

Strategy continued

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

The effects of climate change pose considerable and far-reaching risks to the global economy. As highlighted in the 2017 guidelines of the TCFD, these can be divided into two major categories: (1) risks related to the transition to a lower-carbon economy; and (2) risks related to the physical impacts of climate change.

Physical risks associated with climate change can either be event driven (acute) or result from longer-term shifts (chronic) in climate patterns. While company exposure to acute and chronic physical risks varies greatly depending on geographical asset positioning and relative degree of vulnerability, both may result in financial losses such as damage to assets, interruption of operations, and disruption to supply chains.

Businesses also face risks associated with the transition to a low-carbon economy, including policy changes designed to discourage carbon-intensive activities, technological changes, shifts in consumer demand, investor sentiment, and disruptive business model innovation. For instance, measures to increase the costs of carbon emitting activities are transforming the underlying economics to favour lower carbon technologies and products across all sectors. Depending on the nature, speed, and focus of these regulatory changes, transition risks may produce varying levels of financial exposure for organisations. Conversely, inaction will result in the exacerbation of climate change along with the physical risks to assets, operations, and supply chains.

Our exposure to this set of climate risks and opportunities has been assessed across multiple scenarios and time horizons (short, medium, and long-term). The assessment has highlighted the importance of in-depth asset and company-level risk analysis as most holdings do not conform to clear patterns of exposure. Although physical risk can be determined by the geographic location of company operations, and industries with high carbon emissions are generally more vulnerable to climate-related regulatory developments, this level of analysis is not sufficient alone to inform risk management strategies.

Climate change related financial risks result from a complex interplay between company-specific characteristics, as well as transition and physical risks under a range of different climate change scenarios. Strong action to reduce emissions and limit climate change may avoid the worst physical impacts of climate change but presents significant market, technology, and regulatory transition risks for market participants. Conversely, failure to adequately reduce greenhouse gas emissions may limit transition risks but will result in increasing climate change and associated physical risks.

Risks and opportunities identified by the London CIV using the TCFD framework are listed in Table 1.

Table 1: Climate-related risks and opportunities

Category	Type
Transition Risks	Policy/Legal Developments
	Technology Transition and Innovation
	Market Adjustments
	Reputational Risks
Physical Risks	Wildfires
	Extreme Cold
	Extreme Heat
	Water Stress
	Coastal Floods
	Fluvial Floods
	Tropical Cyclones
	Droughts
Opportunities	Resource Efficiency Improvements
	Renewables and Clean-tech Exposure
	Substitution to Low-carbon Products/Services
	Market Access and Incentives
	Resilience to Climate-Related Physical Impacts

London CIV will continue to review potential risks and will work to measure their impact on future company valuations.

Case Study:
LCIV Passive Equity Progressive Paris Aligned Fund (“PEPPA”)

The objective of the PEPPA Fund is to track the performance of the S&P Developed Ex-Korea LargeMidCap Net-Zero 2050 Paris Aligned ESG Index (GBP). It launched on 1st December 2021 with £520m seed investment from London Borough of Havering and London Borough of Lewisham. The PEPPA Fund has been designed for investors who wish to be at the forefront of the transition towards a low carbon economy by seeking alignment with the ambitious targets of the Paris Agreement, which aims to limit global warming to 1.5°C above pre-industrial levels. The Index is progressive, as it is updated in line with any changes to the minimum standards of EU Paris-Aligned Benchmarks. Stewardship and Engagement is a critical part of the Fund’s core strategy. London CIV consolidates all its votes in PEPPA, sets key priorities at a high level and is also guided by Partner Funds’ priorities and the Local Authority Pension Fund Forum’s guidelines. Our voting provider Hermes EOS executes our votes and provides expertise and guidance to ensure our votes support our stewardship priorities. London CIV appointed State Street Global Advisors Limited (“SSGA”) to manage PEPPA and track the Index. S&P Dow Jones Indices (“S&P DJI”) is the index provider. London CIV worked in collaboration with Partner Funds via Seed Investment Groups (“SIG”) on the design of PEPPA.

Strategy continued

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

London CIV has developed a three-step strategy to mitigate the risks associated with climate change. It is structured as follows:

1.
Integration:
Embedding responsible investment into product design and investment decision making

2.
Engagement:
Collaboration with companies, managers, peers and participants

3.
Disclosure:
Transparent reporting in line with best practice

Climate change issues are dynamically integrated within each of these stages and are underpinned by a set of governance principles to ensure that accountability and strategic responsibilities are clearly defined within the organisation. The London CIV Climate Change Policy details how we manage climate-related risks throughout the investment process and set objectives to ensure these can be monitored and measured over time.

Recognising the range of climate impacts across different funds, our overall investment portfolio must be resilient under a range of climate scenarios and support our Partner Funds' climate change mitigation objectives. However, while responsible investment is a key part of our manager selection process, we do not systematically stipulate minimum levels of climate ambition in the design of our funds. This can be left at the discretion of our investment managers, which enables them to tender with optimal strategies, contingent upon the nature and requirements of the fund mandates as defined by L ondon CIV and its Partner Funds.

There are also challenges associated with managing climate-risks within multi-asset funds. This will depend in large part on the availability of "sustainable options" across different asset classes. For instance, alternative asset classes (Real Assets, Commodities, Derivatives) are often regarded as more difficult to manage from an ESG perspective.

London CIV understands the importance of displaying a strategic asset allocation that helps mitigate short-term risks through diversification. So rather than excluding asset classes which are "problematic" in terms of ESG integration, London CIV has committed to work closely with its fund managers by reviewing leading Responsible Investment ("RI") practices and improving processes on a best-efforts basis.

London CIV's strategy is also underpinned by the understanding that investee companies with robust governance structures are better positioned to handle the effects of shocks and stresses of future events. There are risks but also opportunities in holding companies with exposure to climate-related risks and weak governance. Thus, we adopt a policy of risk monitoring and active engagement to positively influence company behaviour and enhance stakeholder value, influence that would be lost through a divestment approach. We extend the principle of 'engagement for positive change' to the due diligence, appointment, and monitoring of external investment managers who are at an early stage of developing their RI approach. London CIV believes that it will improve its effectiveness by acting collectively with other like-minded investors because it increases the likelihood that it will be heard by the company, fund manager, or other relevant stakeholders compared with acting alone. This extends to other LGPS pools and other public and private investors.

Case Study:
LCIV Renewable Infrastructure Fund

The LCIV Renewable Infrastructure Fund focuses on renewable energy infrastructure assets, investing in greenfield and brownfield assets. This includes generation, transmission, distribution and enabling assets. As of the 31st of December 2022, London CIV have made investments in four funds managed by; BlackRock Investment Management; Foresight: Group and Quinbrook Infrastructure Partners.

The Fund was seeded in March 2021 with £435m of investment from an initial five Partner Funds.

The product supports London CIV's and Partner Funds commitment to ESG integration and managing climate risks, so it the investment by thirteen Partner Funds a total of in sustainable opportunities was a welcome step. The Fund is one of the most successful London CIV fund launches to date.

Photo credit: BlackRock - Glens of Foudland

Strategy continued

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

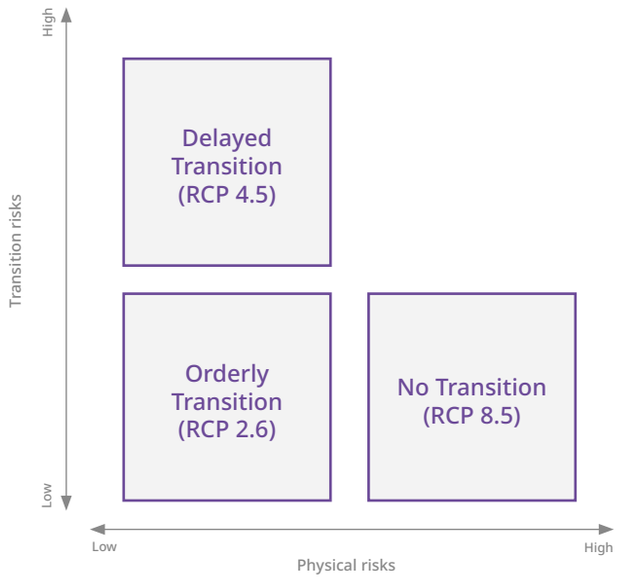
The TCFD's final report highlighted that the most significant effects from climate change are likely to emerge over the medium to long term. However, the precise timing and magnitude these impacts may have on company financial performance is highly uncertain.

To better understand these risks, we conducted a climate scenario analysis covering all listed equity and corporate fixed income instruments included across our funds. This analysis combines two climate datasets developed by S&P Global Trucost: (1) The Carbon Earnings at Risk analytics, which reflects regulatory transition risks by evaluating the impact of rising carbon prices on corporate and portfolio earnings; and (2) the Climate Change Physical Risk analytics, which evaluates corporate exposure to climate change hazards at the asset level. These datasets draw upon climate models from leading research groups, data providers, and academic research papers.

The three scenarios used are based on IPCC Representative Concentration Pathways ("RCP") and informed by the TCFD technical guidelines. They include:

1. **No transition (RCP 8.5):** Continuation of business as usual with emissions at current rates. This scenario is expected to result in warming in excess of 4 degrees Celsius by 2100, causing severe physical risks and irreversible impacts such as sea-level rise.
2. **Delayed transition (RCP 4.5):** Strong mitigation actions to reduce emissions to half of current levels by 2080. This scenario assumes that policies will be implemented to reduce greenhouse gas emissions and limit climate change to 2 degrees Celsius in the long term, but with action delayed in the short term.
3. **Orderly transition (RCP 2.6):** Aggressive mitigation actions to halve emissions by 2050. This scenario corresponds to the implementation of policies that are considered sufficient to reduce greenhouse gas emissions in line with the Paris Agreement. It is likely to result in warming of less than 2 degree Celsius by 2100. Both physical and transition risks are relatively subdued.

Figure 3: Modelled Climate Scenarios
(Source: London CIV based on S&P Global Trucost)



Whilst we recognize some of the methodological limitations associated with these estimation models, we believe that they can produce decision-useful information. The financial risks of dangerous climate change to beneficiaries' pension savings, and the opportunity to contain physical risks means that the financial sector cannot wait until it has 'perfect' data before it starts putting it to use. Our analysis is aligned with the recommendations made by the UK Department of Work & Pensions consultation on implementing scenario analysis and TCFD recommendations for pension fund trustees[10].

The section as follows summarises the results of the climate scenario analysis, in an effort to provide insight into the potential resilience of investment strategies that may be affected by future climate change.

10 Department for Work and Pensions (26 August 2020): Taking action on climate risk: improving governance and reporting by occupational pension schemes.

Case Study:
LCIV Global Alpha Growth Paris Aligned Fund

The LCIV Global Alpha Growth Paris Aligned Fund launched on 13 April 2021 with £485m seed investment from two Partner Funds.

The Fund provides the opportunity for London CIV Partner Funds to align their assets with the objectives of the Paris Agreement and is a lower carbon variant of the existing LCIV Global Alpha Growth Fund, which has been on the London CIV ACS platform since April 2016.

The active equity fund is managed by Baillie Gifford and subject to a quantitative screening process to remove companies with particular levels of revenue exposure to fossil fuels, including revenue from exploration, production, and service provision to the sector, and qualitative screening to other companies to explore the balance between vital and discretionary emissions, potential emission reduction pathways, and management's appetite to adopt a low carbon transition.

The Fund is part of London CIV's role in navigating a pathway to net-zero emissions through alternative investment approaches, which includes holding companies to higher standards of accountability and transparency. The introduction of the LCIV Global Alpha Growth Paris Aligned Fund reflects London CIV's efforts to provide long-term, sustainable investment solutions to our Partner Funds whilst addressing key socio-economic issues and contributing towards the long-term goals of the Paris Agreement.

Photo credit: © REUTERS/Lefteris Karagiannopoulos

Strategy continued

Scenario Analysis – Transition and Physical risks

a. Transition risks

Carbon pricing mechanisms are an essential policy tool to reduce GHG emissions and redirect capital towards lower-carbon solutions. S&P Global Trucost have developed a dataset of scenario based future and current carbon prices based on present emission trading schemes, carbon and fossil fuel taxes. Integral to this analysis is the quantification of the carbon risk premium – the difference between what a company pays for emitting carbon today and what it may pay in the future. The Carbon Price Risk Premium varies by geography due to government policy differences, and by sector due to the differential treatment of sectors in many climate change policies. Calculating such a risk premium allows us to determine the future costs of carbon faced by companies. This helps to inform us of the potential financial impact of carbon prices at fund level under a range of scenarios. The results presented in Table 2 have been calculated according to all three scenarios of carbon prices using 2030 as a reference year.

$$\text{Future carbon costs}_i = \textit{Carbon footprint } (tCO2e)_i * \textit{Risk premium}_i$$

Table 2: Carbon Earnings at Risk – Financial Impacts (Source: LCIV based on S&P Global Trucost)

Metric	LCIV Consolidated	Benchmark
EBITDA at Risk		
Orderly Transition	0.99%	1.81%
Delayed Transition	2.15%	4.04%
No Transition	3.83%	7.32%
EBITDA Margin Reduction		
Orderly Transition	-0.21%	-0.43%
Delayed Transition	-0.45%	-0.90%
No Transition	-0.82%	-1.68%
Weight with >10% EBITDA at Risk		
Orderly Transition	2.14%	4.04%
Delayed Transition	4.56%	8.97%
No Transition	6.73%	13.84%
Weight with Negative Margins		
Orderly Transition	0.01%	0.09%
Delayed Transition	0.03%	0.32%
No Transition	0.25%	1.11%

The EBITDA (earnings before interest, taxes, depreciation, and amortization) at risk is the share of a portfolio's earnings exposed to a carbon price increase. It provides a useful indication of fund vulnerability against an increase in carbon prices. The indicator has been calculated as the weighted average of company future carbon costs divided by earnings ("EBITDA").

$$\text{EBITDA ar risk} = \sum_i^n \left[\frac{\textit{Future carbon costs}_i}{\textit{EBITDA}_i}\right] * \textit{Weight}_i$$

According to the analysis, the share of earnings at risk within a 'No Transition' carbon pricing scenario for the consolidated LCIV pool amounted to 3.83% against 7.32% for the benchmark.

b. Physical risks

Physical risks resulting from climate change can be acute (driven by an event such as a flood or storm) or chronic (arising from longer term shifts in climate patterns) and may have financial implications for organizations such as damage to assets, interruption of operations, and disruption to supply chains. S&P Global Trucost Climate Change Physical Risk Analytics offer an asset level approach to the assessment of physical risk at the company and portfolio level, and in the future, modelling of the magnitude of the potential impact of such risks on financial performance. These assets are assessed based on their exposure and vulnerability to seven physical risks (water stress, fires, floods, heat waves, cold waves, hurricanes and rising water levels).

Companies are rated from 1 to 100 for each of the seven risks in all three scenarios. The lowest rating is 1, while a rating of 100 indicates the highest possible level of risk exposure. Scores are adjusted for the potential materiality of the events they are exposed to (Table 3). The average of the seven scores is then calculated to obtain a composite physical risk score at company level.

Strategy continued

Table 3: Physical Risk - Sensitivity factors and impacts (Source: S&P Global Trucost)

Sensitivity Indicator	Risk Type	Business Impact	Rationale
Water Intensity	• Drought	• IInput Scarcity • Increased Operating Expenses • Stranded Assets	Businesses with high water dependency are more likely to be impacted by water scarcity
Capital Intensity	• Fluvial Flood • Costal Flood • Wildfire • Tropical Cyclone	• Asset Impairment • Lost Inventory • Production Disruption • Critical Infrastructure Damage	Businesses with high capital intensity are more likely to be impacted by risk types that cause physical damage
Labour Intensity	• Extreme Cold • Extreme Heat	• Productivity Losses	Businesses with high labour intensity are more likely to be impacted by the impairment of optimal working conditions

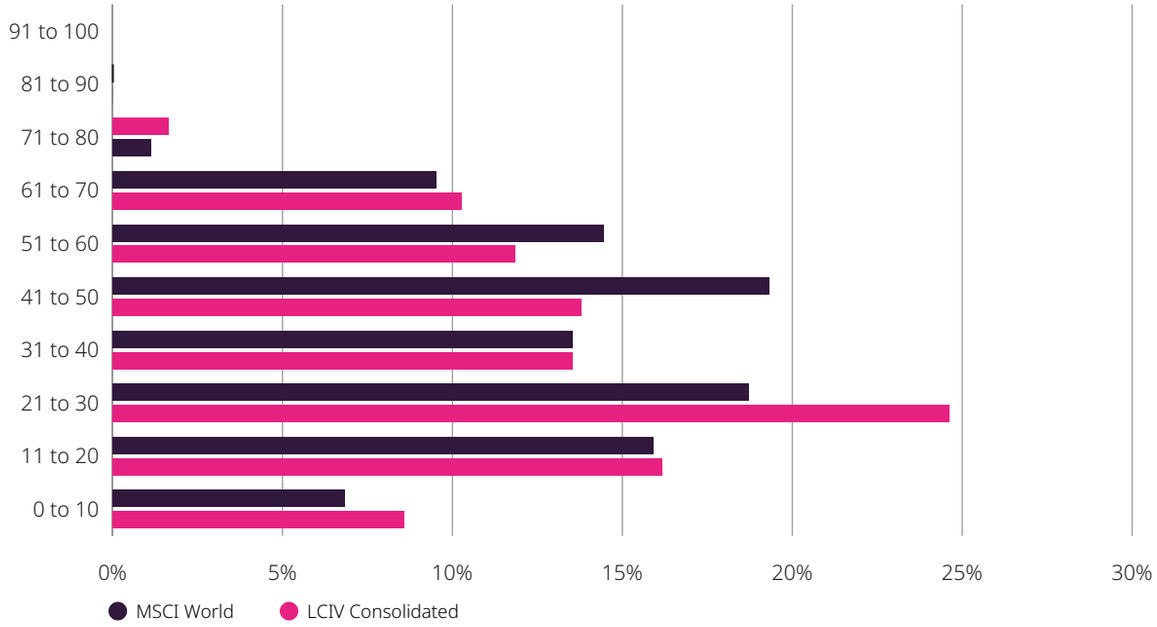
The figure below (Figure 6) provides a breakdown of sensitivity adjusted composite physical risk scores by decile. The scores have been calculated using the no transition scenario, with 2050 as the reference year. They can be interpreted as follows:

- Score between 1 and 33: Low risk
- Score between 34 and 66: Medium risk
- Score between 67 and 100: High risk

The analysis shows that the majority of companies within the consolidated LCIV pool have a low exposure to physical risk events – i.e. 8.59% of companies have received a score between 0 and 10.

Over the past year, we have worked with our investment managers to improve our financial resilience to climate change by reducing the climate-related risk exposure of existing investment products and increasing the range of offerings that contribute to climate mitigation and adaptation objectives. We will continue to develop products in collaboration with our Partner Funds to consolidate our resilience to climate change under a range of climate scenarios, whilst helping beneficiaries to meet their own climate goals.

Figure 4: Weight per Sensitivity Adjusted Composite Score Decile (Source: S&P Global Trucost)
As of the 31st of December 2022



Millennium Bridge

Risk Management

Risk Management

The TCFD recommendations calls on asset owners to describe the processes in place to identify and manage climate-related risks.

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

Investment managers review exposure to climate risks during pre-investment and post-investment analysis. Both involve the application of risk modelling tools such as scenario analysis and qualitative due diligence. The accuracy of the climate risk metrics is contingent upon the quality of the data available and the rigour of the analytical approaches employed. For instance, climate risks associated with alternative asset classes such as Real Assets, Commodities, Derivatives, and Non-listed Corporate Issuers are often regarded as more challenging to measure. Depending on the nature of the asset class and the precision of the data available, risks may also be reviewed either at the security, issuer, or sector-level. Investment managers are ultimately responsible for developing their own climate risk assessment tools and reviewing leading practice to improve processes on a best-efforts basis.

To enhance the understanding of climate risks and identify specific areas of exposure, London CIV has also developed in-house risk-assessment tools leveraging data from third-party providers. All climate impact and exposure metrics calculated by London CIV have been developed in line with the Global GHG Accounting and Reporting Standard for the Financial Industry developed by the Partnership for Carbon Accounting Financials (PCAF). Climate-risk analysis covering corporate equity and fixed income instruments is conducted across all London CIV sub-funds on a quarterly basis, and the results from such assessments are used for monitoring levels of climate risk exposure and engaging with corporate issuers.

B. Describe the organisation's process for managing climate-related risks.

Managing risks associated with climate change is a fundamental part of our investment strategy. To reflect their importance, they have been integrated into all stages of our engagement with investment managers as well as the design, selection, and management of our investment strategies. This approach was established in partnership with the RIRG and supported by oversight of the Board and EIC.

All investment managers must be able to clearly demonstrate their approach to identifying and mitigating exposure to climate risk and articulate how their investment objectives support the transition to the low carbon economy. This is assessed based on sub-fund climate policies and the investment manager's set of responses to the London CIV ESG Due Diligence questionnaire. Contractual agreements with external managers also include climate-related clauses such as disclosure in line with the TCFD, and stewardship commitments in line with the UN Principles for Responsible Investment ("PRI"). Moreover, we meet with our investment managers on a quarterly basis to assess their climate performance across key risk exposure and impact metrics. We may also challenge managers to provide case studies or examples of investment decisions that were influenced by the integration of climate factors in decision-making.

London CIV also recognises that accurate and timely disclosure of climate-related financial information is central to the development of effective risk-mitigation strategies. For instance, corporate issuers continue to report their greenhouse gas emissions to varying degrees of quality and detail. Some disclosures are made in accordance with global reporting standards and verified by external parties, but others are fragmentary and prone to errors. We aim to address this by encouraging investee companies to improve the quality of their climate-data disclosures in alignment with the TCFD recommendations or the Sustainability Accounting Standards Board ("SASB"). These efforts may be supported by our fund managers, via direct dialogue, or through membership in industry associations such as ClimateAction100+. This year we established a partnership with Hermes EOS to strengthen our engagement and voting capabilities.

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

The London CIV Risk Management Framework ("RMF") establishes the three core pillars of its risk management defense model, including: (1) Roles and Responsibilities; (2) Key risk management tools and processes; and (3) Reporting requirements and governance. The RMF is used to identify threats to London CIV and outlines the process for mitigating those risks. Climate change considerations are embedded within each of the three lines of defense. This ensures that they are adequately compensated for throughout our investment lifecycle.

We also have an established set of principles that underpin the way we invest. Our duty of care as well as our commitment to responsible investing and sound risk management are enshrined in our Investment Beliefs.

London Southbank

Metrics and Targets

Metrics and Targets

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

London CIV considers both forward-looking and historical metrics to inform internal risk management and investment strategies. These have all been produced in line with the TCFD recommendations. This climate-risk analysis covers 66% of the consolidated pool's AUM[11].

Table 4: Climate-related exposure and impact metrics

Data Provider	Asset Class	Indicators
Trucost, part of S&P Global	Listed Equity	**Historical Performance** • Carbon Footprint Metrics • Fossil Fuel & Stranded Assets Exposure Metrics **Forward-Looking Metrics** • Two-Degree Alignment: Energy Generation Mix • Two-Degree Alignment: GHG Transition Pathway Assessment • Transition Risks: Unpriced Carbon Costs • Physical Risks: Raw and Sensitivity Adjusted Scores
	Corporate Fixed Income	
Science-based Targets Initiative		• Verified Near-term targets • Verified Long-term targets • Net Zero Commitments

Private Markets

London CIV works with its private markets fund managers to incorporate ESG and climate considerations into investment due diligence and decision-making. For instance, infrastructure has an essential role to play in mitigating and adapting to climate change as well as achieving the SDGs. Supporting investments into renewable energy generation, transmission, and distribution assets forms a critical part of our Net Zero Investment Strategy.

The LCIV Infrastructure Fund which was launched in 2019 was designed with a minimum of 25% of commitment in renewable energy exposure. Currently, the fund has exceeded its target by having a total of 41% of commitment in renewables. In 2021 the London CIV has also launched a standalone Renewable Infrastructure Fund. Across these two funds, more than £810 million has been committed towards renewable energy infrastructure. This corresponds to 3.1% of London CIV's AUM. We have also worked to collect the avoided emissions resulting from the displacement of conventional power generation sources by these assets[12]. Based on this assessment London CIV concluded that the investments contributed to 5 of the 17 SDGs (Figure 3).

Figure 5: Contribution to the United Nations Sustainable Development Goals

Over the past two years, we have also worked to formalise ESG and climate monitoring processes across Real Estate and Private Debt investments. This included the assessment of all managers' responsible investment policies, the formulation of due diligence questionnaires, and reviews of GP track records of ESG and climate assessments. Some of the expectations outlined to the managers include: (1) Enhanced reporting on ESG data and disclosures in line with the TCFD; (2) Greater focus on embodied carbon in the development pipeline; (3) Establishment of a net zero pathway. Several managers have now developed reporting frameworks in line with the EU's Sustainable Finance Disclosure Regime ("SFDR"). We will continue to engage with managers to provide more systematised and consistent climate metrics back to our investors.

11 Covers the following asset classes (1) Listed Equity, (2) Fixed Income - Corporate. Uncalled capital from Private markets funds commitments have been excluded..

12 Climate Metrics including avoided emissions have been provided in the Appendix.

Metrics and Targets continued

B. Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas ("GHG") emissions, and the related risks. Asset owners should provide the weighted average carbon intensity, where data are available or can be reasonably estimated, for each fund or investment strategy.

1. Carbon Footprint

Carbon audits allow for a systematic assessment of the carbon related impacts within the consolidated pool at a given point in time. Emissions associated with investee companies may range from those generated by direct operations, to those generated throughout the entire value chain. These emissions may then be 'normalised' by a financial indicator (such as annual revenues) to provide a measure of carbon intensity . The TCFD recommended weighted average carbon intensity metric is an appropriate measure of carbon risk exposure. It is calculated by summing the product of each holding's weight in the fund with the company level carbon to revenue intensity. The metric provides an indication of exposure to carbon intensive companies and countries and circumvents the need for apportioning ownership of carbon or revenues to individual holdings.

$$\text{Weighted Average Carbon Intensity} = \sum_i^n \left[\frac{Emissions\ issuer_i}{Revenues\ issuer_i} * weight_i \right]$$

Gaps in data can create undesirable reallocations of climate risk. For example, focusing on Scopes 1 and 2 emissions (which are widely reported by companies) but discarding Scope 3 can reallocate carbon risk along the value chain. .

The figure on the next page displays the weighted average carbon intensity of all funds on the LCIV ACS platform according to two sets of emission scopes.

Figure 6: London CIV Climate Risk Analysis Coverage (Source: London CIV based on S&P Global Trucost data)

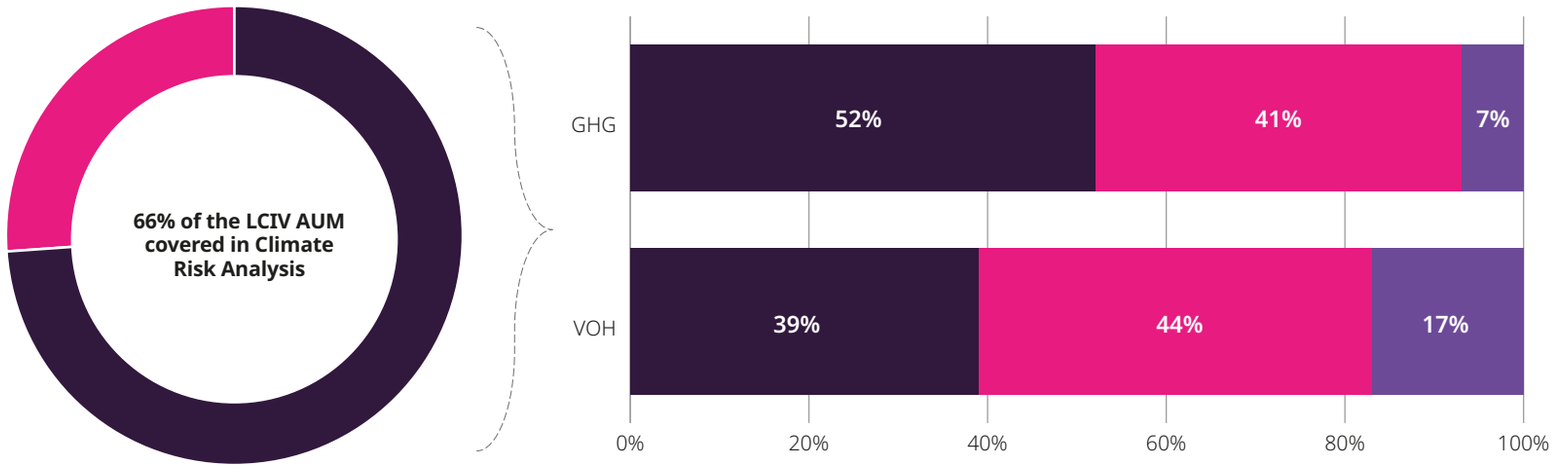
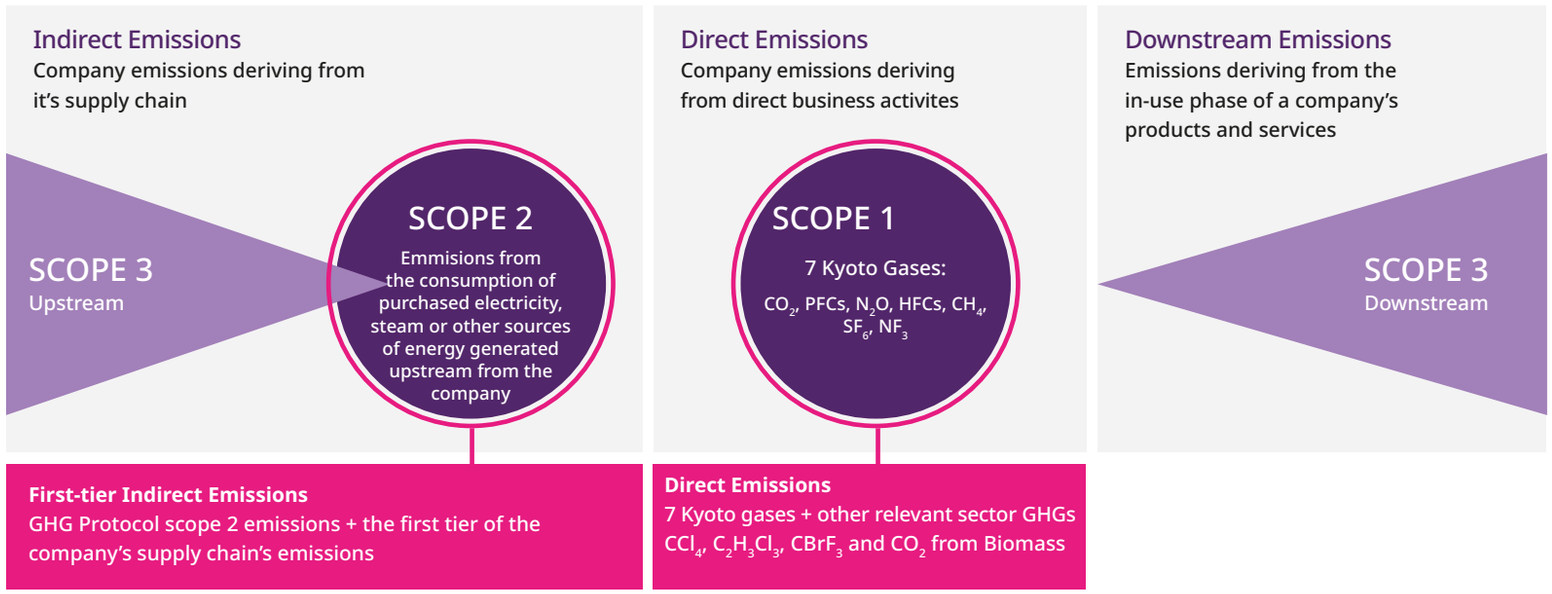


Figure 7: Carbon Emission Scopes



Metrics and Targets continued

Figure 8: Weighted Average Carbon Intensity – Direct + First-Tier Indirect emissions (Source: London CIV based on S&P Global Trucost data)

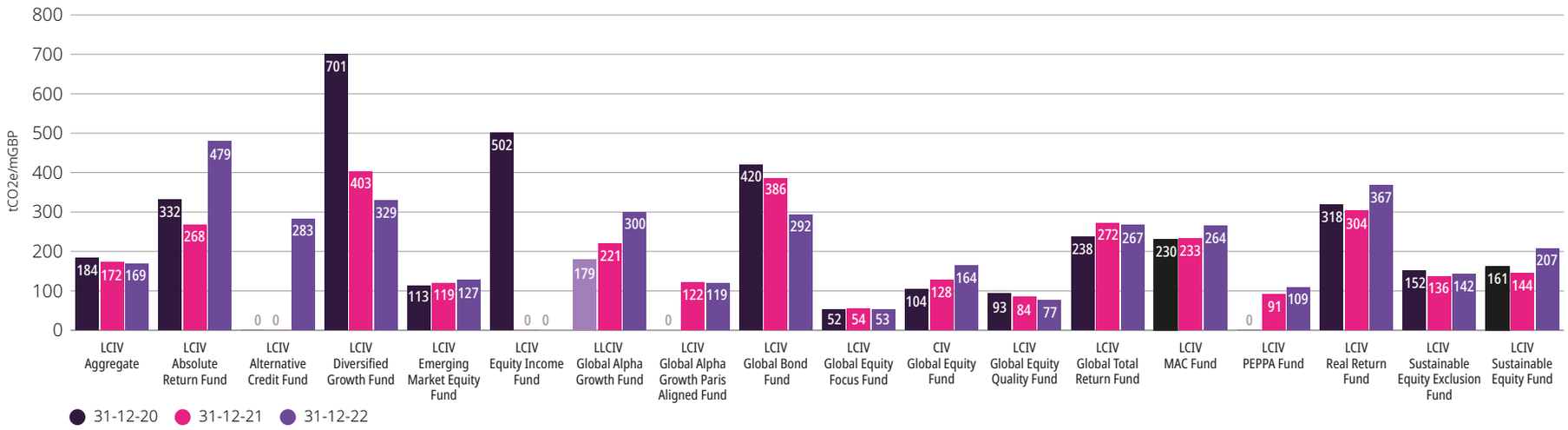
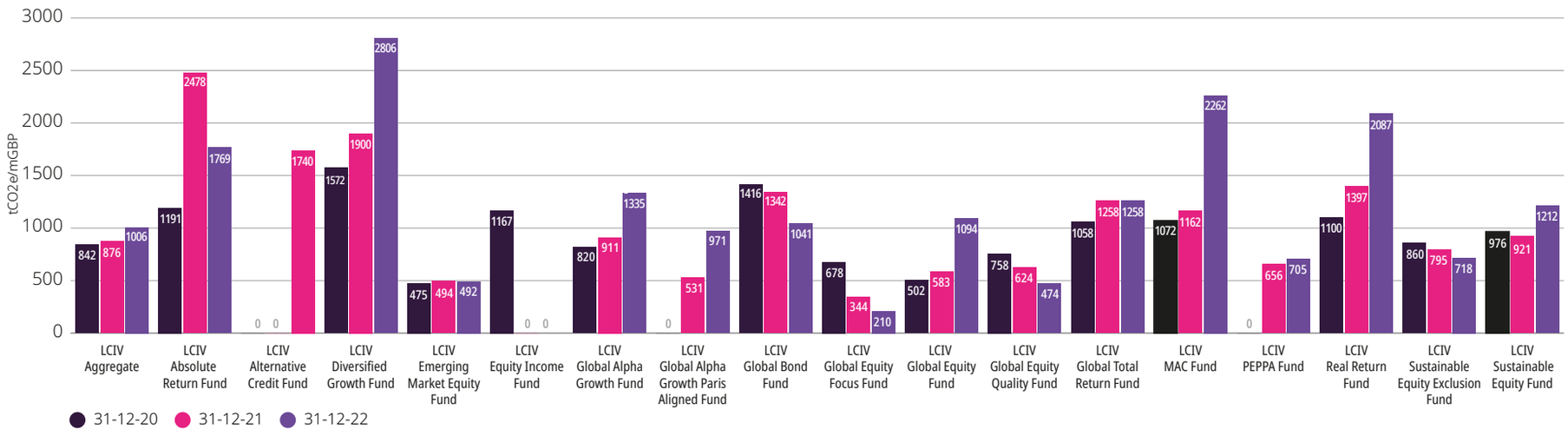


Figure 9: Weighted Average Carbon Intensity – Scope 1-2-3 emissions (Source: London CIV based on S&P Global Trucost data)



Metrics and Targets continued

2. Fossil Fuels & Stranded Assets

Future emissions from fossil fuel reserves far outweigh the allowable carbon budget that will limit global warming to 2°C above pre-industrial levels. Industry experts refer to assets that may suffer from unanticipated or premature write-downs, devaluations, or conversion to liabilities as stranded assets. London CIV assesses exposure to such assets by showing the combined value of holdings with business activities in either fossil fuel extraction or fossil fuel energy generation industries. This helps us to identify potential stranded assets that may become more apparent as economies move towards a low carbon economy.

Exposure to potential stranded assets was assessed by based on two indicators:

1. The sum of the weights of the companies in the portfolio exposed to such assets (expressed as % of holdings value). The given indicator is calculated by summing up the weights of holdings in companies that have a revenue dependency on the sectors in question.

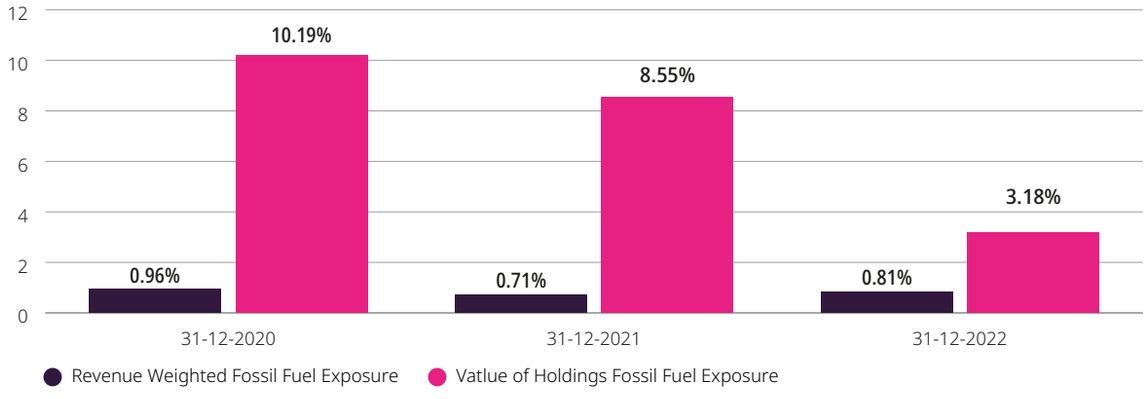
$$\text{Value of Holdings Exposure} = \sum_{i}^{n} [Weight_i]$$

2. The proportion of the revenues of the companies involved in the mentioned activities (expressed as a % of the revenues).

$$\text{Revenue Weighted Exposure} = \sum_{i}^{n} \left[\frac{Fossil\ Fuel\ revenues\ issuer_i}{Total\ Revenues\ issuer_i} * weight_i \right]$$

The results of the analysis indicate that the consolidated LCIV pool has reduced its fossil fuel exposure according to both set of metrics (Figure 10).

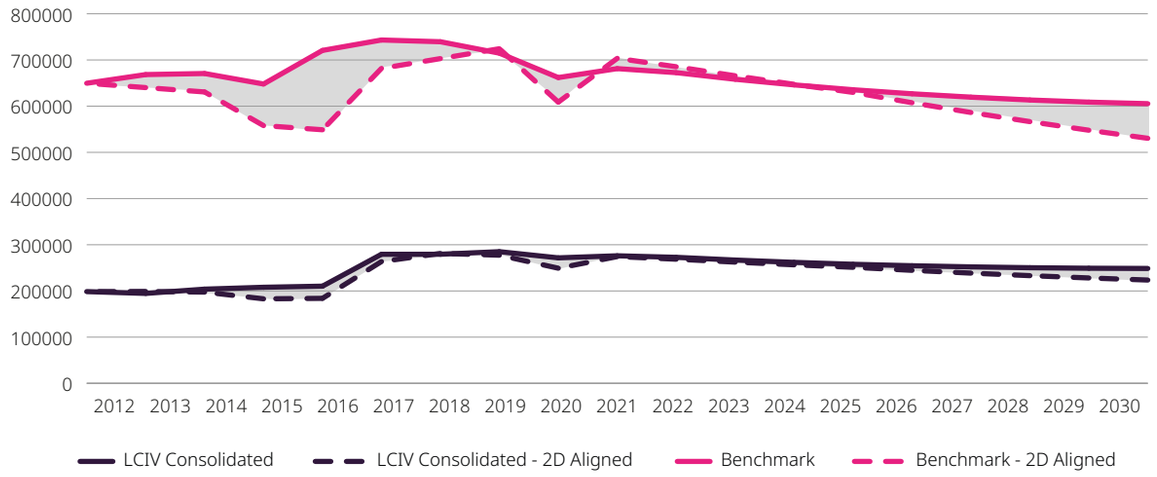
Figure 10: Exposure to Fossil Fuel Activities (Source: London CIV based on S&P Global Trucost data)



3. Paris Alignment

The Paris Agreement calls for coordinated efforts ensuring global temperature rise as a result of GHG emissions is limited to 1.5°C or below. The consolidated LCIV pool was evaluated by Trucost on the basis of their alignment with the objectives defined by the Paris Agreement. The approach employed by Trucost can be described as an assessment of a company's transition trajectory, i.e. an analysis of the adequacy between each company's emission reductions and the reductions required to achieve a given scenario. The analysis takes into account historical carbon data as well as future carbon footprints based on scope 1 and scope 2 emissions.

Figure 11: Emissions Trajectory (Source: S&P Global Trucost)



The results of the analysis have indicated the consolidated LCIV pool shows a transition path which is not compatible with a warming below 2°C. Emissions are approximately 9% higher than the emissions allowed for a 2°C carbon balance.

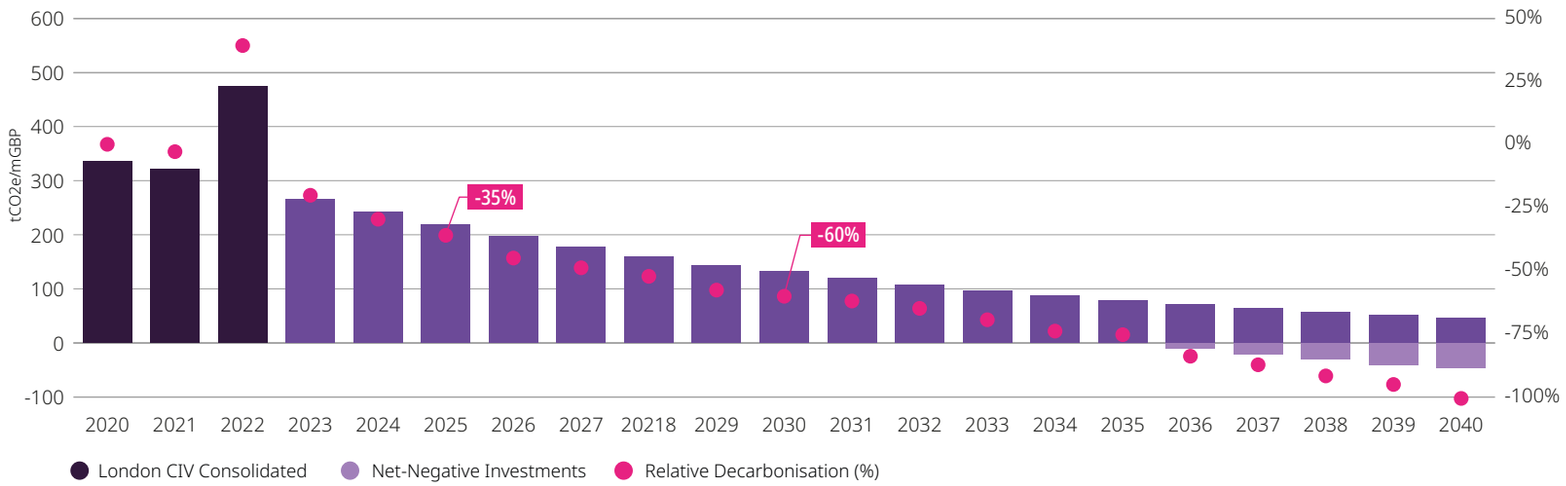
Metrics and Targets continued

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

London CIV has committed to become a Net Zero entity by 2040 in line with the Paris Agreement objectives to limit global temperature rise below 1.5°C. It will also become a Net Zero Company across operational and supply chain emissions as early as 2025.

Alongside its main commitment, London CIV has set interim targets for its investments including a 35% carbon intensity reduction by 2025 (relative to 2020), and 60% by 2030 across funds invested via the London CIV Fund range worth £13.9bn in total (as of the 31st of December 2022). London CIV plan to achieve its goals by decarbonising existing funds through targeted engagement, contributing to avoided emissions, launching Low-Carbon and Paris-Aligned funds, and eventually contributing to negative emissions (Figure 12).

Figure 12: London CIV Net-Zero decarbonization Pathway – Scope 1-2-3 (Source: London CIV)



Carbon Intensity is calculated by summing up the proportionate carbon emissions of portfolio companies based on ownership share.

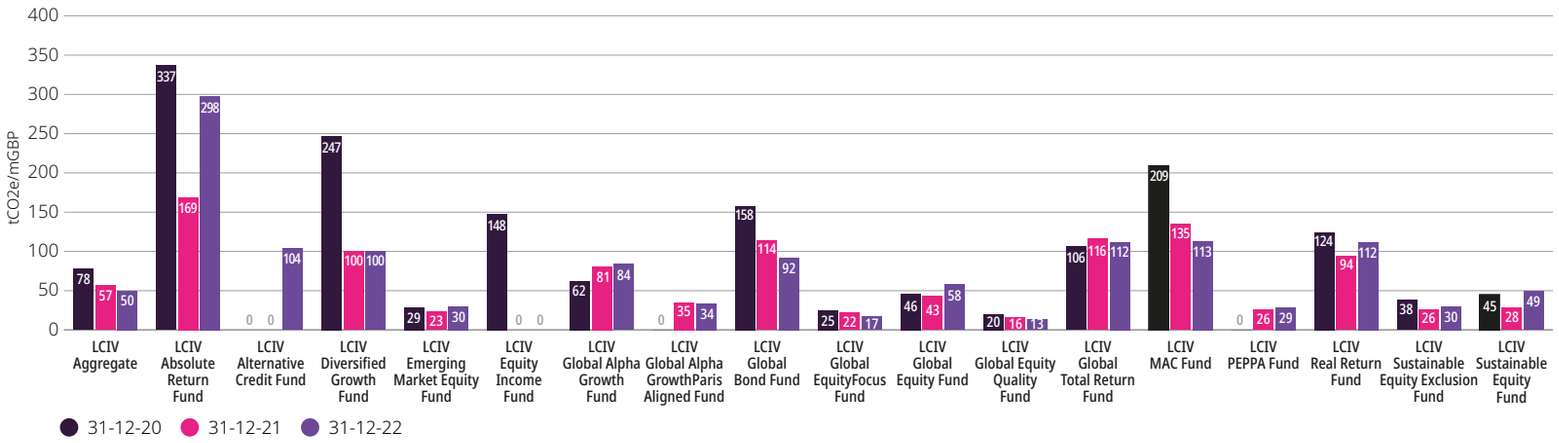
$$\text{Carbon to Value intensity} = \frac{\sum_i^n \left[\frac{Value\ of\ Investment_i}{EVIC_i} * Emissions\ issuer_i\right]}{\sum_i^n [Total\ fund\ value_i]}$$

This provides a better indication of the London CIV's contribution to global carbon emissions compared with weight-based carbon intensity metrics. Using EVIC (Enterprise Value including cash) as a denominator for the carbon intensity also allows for the applicability of the methodology to both equity and/or fixed income investments and does not bias for or against any particular sector. EVIC is closely linked to the financing sources of companies, hence directly linked to the role of investors. This logic can also be applied to real assets like real estate and infrastructure.

> Lambeth is one of the largest investors in the London CIV with £1.1bn of assets pooled in the vehicle, and the Committee feels strongly hat we should support the goals and ambitions of the pool by aligning our net zero targets.
>
> **Councillor Anna Birley**
> Lambeth Pensions Committee

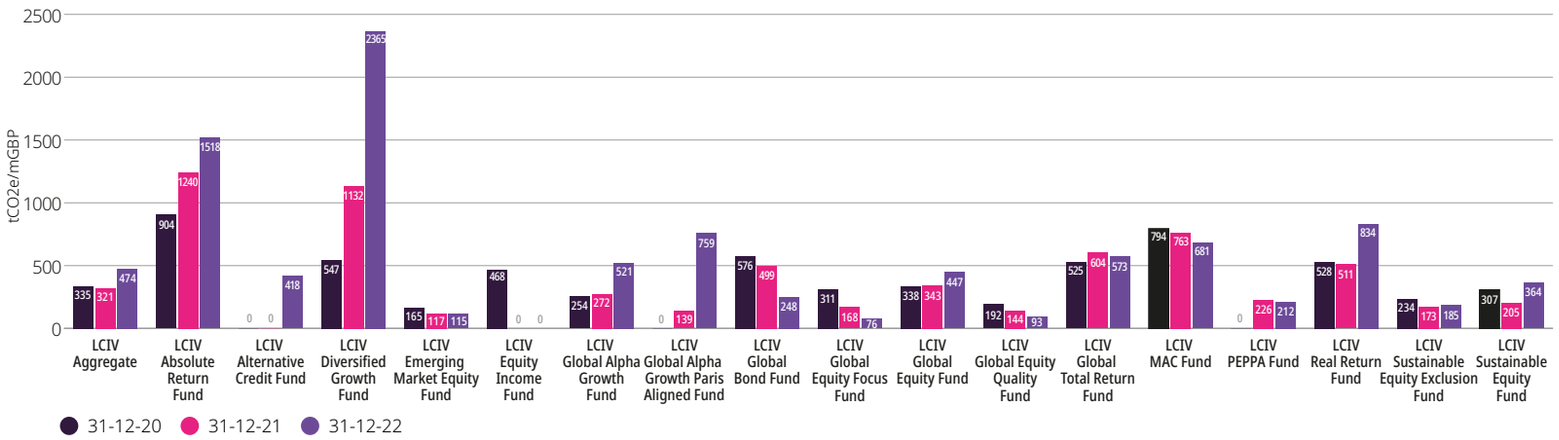
Metrics and Targets continued

Figure 13: London CIV decarbonisation progress (Direct + First-Tier Indirect Emissions) (Source: London CIV)



On the basis of Direct + First-tier indirect emissions, the London CIV has decarbonised by 12% over the past year. This progress is a direct result of the carbon intensity reductions achieved by funds of the platform such as the LCIV MAC Fund, and the transition from clients to the LCIV Global Alpha Growth Paris-Aligned Fund from the LCIV Global Alpha Growth Fund. Relative decarbonisation progress has been tampered by the increase in the GHG footprint of several funds including the LCIV Sustainable Equity Fund.

Figure 14: London CIV decarbonisation progress (Scope 1-2-3) (Source: London CIV)

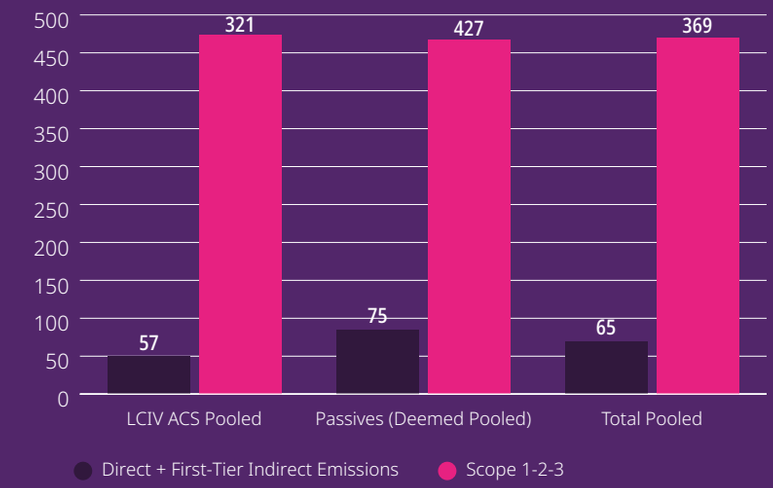


Based on Scope 1-2-3 emissions, the London CIV increased in GHG intensity by 48%. However, we note that this primarily results from the LCIV Global Alpha Growth Paris-Aligned Fund's own increase in Scope 3 GHG intensity[15]. This increase in associated with the fund's exposure to Nexans S.A. a company providing cabling systems and smart energy solutions for buildings, grids, and e-mobility, as well as offering systems management solutions for offshore wind farms. This company has been identified by our investment manager as a solution enabler, i.e., a company that can support the transition to a low carbon economy. In addition, we also note that the company's 2030 Scope 1, 2, and 3 climate targets have been validated by the Science Based Targets initiative. In short, we fundamentally believe that the company can help to deliver GHG emissions reductions in the real economy in line with our Net-Zero objectives.

Treatment of funds managed passively through LGIM and Blackrock

London CIV clients are currently invested passively across 18 different Blackrock funds and 32 LGIM funds, worth £11.9bn. As part of this year's TCFD report, we completed a climate footprint of these funds[13] (Figure 15).

Figure 15: London CIV Carbon Footprint 31-12-2022 (Source: London CIV based on Trucost part of S&P Global Data)



London CIV has no control over these passive funds. While some of them have a low-carbon mandate through exclusions, none currently have a clear direction of travel which complicates the decarbonisation exercise. However, given the significant size of the mandates, we do endeavour to integrate these funds as part of our Net-Zero Investment strategy. As a first step we have calculated the climate footprint of the passive funds to understand where efforts could be focused and expect to provide an update on this soon.

13 This analysis covers the following asset classes (1) Listed Equity, (2) Fixed Income – Corporate. The coverage rate amounts to 86% of the consolidated passive pool investments.

Appendix:

Products – ACS Pooling Structure

As of the 31st of December 2022

Fund	Coverage (%AUM)	Direct + First Tier GHG WACI (tCO2e/mGBP revenues)	Scope 1-2-3 GHG WACI (tCO2e/mGBP revenues)	Revenue-weighted Fossil Fuel Exposure (%)	Implied Temperature (°C)[14]	SBTI Verified Near-term targets	SBTI Verified Long-term targets	SBTI Net-Zero Commitment
Global Equities								
LCIV Emerging Market Equity Fund	96%	127 tCO2e/mGBP	492 tCO2e/mGBP	0.0%	**>3°C**	7.28%	1.44%	16.00%
LCIV Global Alpha Growth Fund	98%	300 tCO2e/mGBP	1335 tCO2e/mGBP	0.4%	**<3°C**	24.11%	4.88%	22.54%
LCIV Global Alpha Growth Paris Aligned Fund	98%	119 tCO2e/mGBP	971 tCO2e/mGBP	0.0%	**<3°C**	27.44%	5.58%	25.48%
LCIV Global Equity Focus Fund	96%	53 tCO2e/mGBP	210 tCO2e/mGBP	0.0%	**>3°C**	30.15%	3.33%	34.39%
LCIV Global Equity Fund	98%	164 tCO2e/mGBP	1094 tCO2e/mGBP	0.0%	**<3°C**	38.20%	4.24%	32.49%
LCIV Global Equity Quality Fund	98%	77 tCO2e/mGBP	474 tCO2e/mGBP	0.3%	**<3°C**	46.44%	0.79%	30.36%
LCIV PEPPA Fund	100%	109 tCO2e/mGBP	705 tCO2e/mGBP	0.1%	**<1.75°C**	46.17%	4.37%	28.91%
LCIV Sustainable Equity Exclusion Fund	99%	142 tCO2e/mGBP	718 tCO2e/mGBP	0.1%	**<2°C**	34.97%	7.23%	29.04%
LCIV Sustainable Equity Fund	100%	207 tCO2e/mGBP	1212 tCO2e/mGBP	0.1%	**<2°C**	34.65%	5.42%	28.77%
Fixed Income								
LCIV Global Bond Fund	46%	292 tCO2e/mGBP	1041 tCO2e/mGBP	3.2%	**<3°C**	21.22%	2.85%	18.39%
LCIV Alternative Credit Fund	24%	283 tCO2e/mGBP	1740 tCO2e/mGBP	3.9%	**<3°C**	15.09%	1.40%	19.46%
LCIV MAC Fund	28%	264 tCO2e/mGBP	2262 tCO2e/mGBP	3.0%	**<2°C**	21.86%	0.60%	17.98%
Multi Asset								
LCIV Absolute Return Fund	8%	479 tCO2e/mGBP	1769 tCO2e/mGBP	5.0%	**>3°C**	22.89%	0.00%	18.65%
LCIV Diversified Growth Fund	32%	329 tCO2e/mGBP	2806 tCO2e/mGBP	1.9%	**<1.75°C**	34.24%	5.84%	26.13%
LCIV Global Total Return Fund	41%	267 tCO2e/mGBP	1258 tCO2e/mGBP	2.0%	**>3°C**	55.18%	1.49%	37.74%
LCIV Real Return Fund	53%	367 tCO2e/mGBP	2087 tCO2e/mGBP	2.4%	**<2°C**	22.75%	5.03%	23.11%

14 Implied Temperature Metrics were calculated by LCIV by leveraging the Trucost Transition Pathway dataset. They do not necessarily reflect whether a fund is "Paris Aligned". For more information, please consult the following link.

Appendix:

Products – Private Markets (EUUT and SLP)

As of the 31st of December 2022

Fund	Investment Managers	Description	Investments	SFDR Classification	Climate Metrics[15]
Infrastructure					
LCIV Infrastructure Fund	Stepstone	The Fund invests in brownfield and greenfield infrastructure assets. The largest exposure by sector is to renewable energy. The Investment Manager has been a signatory of TCFD since 2019 and became a member of the IIGCC in 2021. The Fund is currently comprised of eight primary funds invested in through 8 different General Partners (GPs). All but one are signatories to the TCFD . Three GPs also participate in the annual GRESB Infrastructure assessment but only one has completed the assessment for a primary fund to which LCIV is exposed to[17].	Arcus European Infrastructure Fund II	Article 8	GHG Emissions: **76,811 tCO2e** Avoided Emissions: **Not Reported**
			Basalt Infrastructure Fund III	N/A	GHG Emissions: **129,188 tCO2e** Avoided Emissions: **Not Reported**
			Brookfield Global Transition Fund C	Article 9	GHG Emissions: **881,697 tCO2e** Avoided Emissions: **34,795 tCO2e**
			Capital Dynamics Clean Energy Infrastructure Fund VIII	Article 9	GHG Emissions: **82 tCO2e** Avoided Emissions: **32,590 tCO2e**
			Equitix Fund VI	Article 8	GHG Emissions: **438,472** Avoided Emissions: **Not Reported**
			European Diversified Infrastructure Fund III	Article 8	GHG Emissions: **356,533 tCO2e** Avoided Emissions: **Not Reported**
			Macquarie GIG Renewable Energy Fund II	Article 8	GHG Emissions: **6,694 tCO2e** Avoided Emissions: **2,121 tCO2e**
			Meridiam Infrastructure North America Fund II	N/A	GHG Emissions: **Not Reported** Avoided Emissions: **Not Reported**
LCIV Renewable Infrastructure Fund	BlackRock	The Fund invests in brownfield and greenfield renewable energy infrastructure assets. This includes generation, transmission, and distribution assets. All selected fund managers are signatories to the TCFD, and three are signatories of the Net Zero Asset Managers Initiative. Only a single fund manager participates in the GRESB Infrastructure Assessment[18].	Global Renewable Power Fund III	Article 9	GHG Emissions: **192,720 tCO2e** Avoided Emissions: **3,844,878 tCO2e**
			Renewable Income UK Fund	N/A	GHG Emissions: **Not Reported** Avoided Emissions: **231,372 tCO2e**
	Quinbrook		Quinbrook Renewables Impact Fund	N/A	GHG Emissions: **40,647 tCO2e** Avoided Emissions: **156,358 tCO2e**
	Stonepeak		Stonepeak Global Renewables Fund	Article 8	GHG Emissions: **38,924 tCO2e** Avoided Emissions: **1,448,315 tCO2e[19]**
	Foresight		Foresight Energy Infrastructure Partners Fund	Article 9	GHG Emissions: **72,635 tCO2e** Avoided Emissions: **80,767 tCO2e**

15 As reported by the Investment Managers. Please note that the methodology and scope used to calculate the emissions may vary across the managers. More information can be provided upon request.

16 The LCIV Infrastructure Fund has been designed to invest a minimum of 25% into the Renewable Energy sector. As of the 31-12-2022, 41% of the Infrastructure Fund commitments were allocated towards Renewable Energy. Basalt Infrastructure Partners is the only GP that hasn't formally signed up to the TCFD.

17 Arcus has completed the GRESB fund assessment questionnaire for AEIF2 for the fourth time in 2022. It scored 91 out of 100 possible points (compared to 82/100 in 2021). Capital Dynamics and Macquarie Investment Management also report to GRESB.

18 Foresight is not a signatory to the Net-Zero Asset Managers Initiative. The BlackRock Global Renewable Power Fund III achieved the maximum 'Management' score representing 100%. Ranked joint 1st Place out of 166 Funds.

19 Cumulative avoided emissions since renewable energy generation first commenced, calculated at project level.

Appendix:

Products – Private Markets (EUUT and SLP) - Continued

As of the 31st of December 2022

Fund	Investment Managers	Description	Investments	SFDR Classification	Climate Metrics[15]
Property					
The London Fund	LPPI	The Local Pensions Partnership Investments and the London CIV have jointly set up "The London Fund" to help access investment opportunities in Greater London across real estate, infrastructure, and growth capital opportunities. The Fund has a secondary objective to invest in projects with sustainable outcomes that address social needs in Greater London such as job creation, area regeneration and a positive environmental impact[20].	DOOR S.L.P.	N/A	Not currently reported
	Quinbrook		Yoo Capital Fund II	N/A	
	Stonepeak		Edge London Bridge	N/A	
	Foresight		MEIF 7 Virtus Holdings	N/A	
LCIV Real Estate Long Income	Aviva	The Fund aims to deliver secure, predictable and inflation-protected cashflows by investing into a high-quality portfolio of real assets, including long-lease property, commercial ground rents and private debt. It does not explicitly focus on ESG in its investment objectives, however ESG is embedded throughout the investment process.	LCIV Real Estate Long Income	N/A[21]	GHG Emissions: **1,552 tCO2e/year** Weighted Average Carbon Intensity: **15 tCO2e/mGBP[22]** Warming Potential: **2.8°C**
Private Debt					
LCIV Private Debt Fund	Churchill	The Fund invests into two underlying funds managed by Pemberton Asset Management, and Churchill Asset Management which make loans to European and North American middle market companies, respectively. Both managers integrate ESG issues as part of their investment process when underwriting loans. Pemberton is a member of the Net Zero Asset Manager's Initiative and has also introduced ESG Margin Ratchets for borrowers which comply with six distinct ESG requirements as certified by a 3rd party assessment[23].	Churchill Middle Market Senior Loan Fund IV	N/A	GHG Emissions: **10,895 tCO2e** Weighted Average Carbon Intensity: **260 tCO2e/mUSD[24]**
	Pemberton		Pemberton Mid-Market Debt Fund III	Article 6	Not currently reported
			Pemberton Mid-Market Debt Fund IV	Article 8	Not currently reported

20 As of the 31-12-2022, the fund is 33% exposed to a primary commitment of £50m in DOOR which gives the portfolio exposure to a mix of private rental sector, student accommodation and affordable housing. These assets are held within Get Living, a Real Estate Investment Trust which has achieved a GRESB score of 88% ranking 2nd in the Multi-family peer group.

21 While the fund is currently not formally labeled under any of the SFDR product classifications, the manager has provided SFDR aligned reporting. 14% of the Fund's assets have been classified as "Sustainable investments" - the EU taxonomy requires that buildings built before 31 December 2020 have at least an Energy Performance Certificate (EPC) class A to "substantially contribute to climate change mitigation" and be classified as such.

22 GBP Debt + Equity has been used as a denominator (Revenue-based weighted average carbon intensity: 232 tCO2e/mGBP).

23 This includes a requirement to demonstrate net zero carbon dioxide emissions or a reduction in carbon dioxide emissions of at least 20% year-on year.

24 Calculated as at the 31-12-2021. Updated Carbon Footprint metrics will be shared with investors in Q3 2023. Metrics calculated based on Scope 1 & 2 modelled emissions data.

Glossary

Acronyms and Terms	Definition
CARCO	Compliance Audit and Risk Committee.
CEO	Chief Executive Officer.
CIO	Chief Investment Officer.
EcoInvent	EcoInvent is a not-for-profit association. The EcoInvent database provides well documented process data for thousands of products, helping you make truly informed choices about their environmental impact.
ESG	Environment, social and governance are issues that are identified or assessed in responsible investment processes. Environmental factors are issues relating to the quality and functioning of the natural environment and natural systems. Social factors are issues relating to the rights, well-being and interests of people and communities. Governance factors are issues relating to the governance of companies and other investee entities.
FSB	Financial Stability Board.
GHG	Greenhouse gas.
HRI	Head of Responsible Investment.
EIC	Executive Investment Committee.
IPCC	Intergovernmental Panel on Climate Change
LE & CFI	Listed Equity and Corporate Fixed Income
LGPS	Local Government Pension Scheme.
mGBP	Million Great British Pounds.
QIR	The Quarterly Investment Report is a report sent to all London CIV Partner Funds detailing the financial and ESG performance of London CIV funds on a quarterly basis.
RI	Responsible Investment.
RIRG	The Responsible Investment Reference Group – is a working group including representatives from Partner Funds, London CIV, and the appointed ESG Champion from the Board.
RMF	Risk Management Framework.
Scope 1, Scope 2, Scope 3 Emissions	Greenhouse gas emissions broken down into three categories by the Greenhouse Gas Protocol to set clear boundaries and understand the source of emissions. Scope 1 refers to all direct emissions from activities under an organisation's control. Scope 2 refers to indirect emissions from electricity purchased and used by an organisation. Scope 3 refers to all other indirect emissions from activities of the organisation.
TCFD	Financial Stability Board's Task Force on Climate Related Financial Disclosures ("TCFD") was established with the goal of developing a set of voluntary climate-related financial risk disclosures which can be adopted by companies so that those companies can inform investors and other members of the public about the risks they face related to climate change.
tCO2e	Tonnes of carbon dioxide equivalent.
UN-backed PRI	UN Principles for Responsible Investment - A set of six principles that provide a global standard for responsible investing as it relates to environmental, social and corporate governance factors. Organisations follow these principles to meet commitments to beneficiaries while aligning investment activities with the broader interests of society.
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Getting in touch with the team

If you have any questions or comments about this report please email at **clientservice@londonciv.org.uk**

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