



LPP

Local Pensions Partnership
Investments

Task Force on Climate-Related Financial Disclosure Entity Report

For the period to 31 December 2023

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Introduction by the CEO



Chris Rule
Chief Executive Officer

At LPPI we recognise that transparent disclosure is a critical support to the understanding clients and broader stakeholders need to hold us to account. We see reporting as an opportunity for openness about the work we are doing, the challenges we are navigating, and the context we are shaping and being shaped by.

In our experience, when the data and information we share is accompanied by reflection and honest insights, it encourages a clearer appreciation of our stewardship drivers and builds greater confidence in our approach, which help to sustain the value placed on LPPI's services by those we are here to serve.

This is our first TCFD report produced to meet disclosure requirements mandated by our regulator, the Financial Conduct Authority. Our previous TCFD disclosures have been on a voluntary basis and an integral part of our annual reporting on Stewardship and Responsible Investment.

Explaining our work on climate change within the context of our asset management and stewardship activities has helped us to convey that, as a responsible investor, we take a rounded view that is facilitated by ensuring environmental, social, and corporate governance (ESG) considerations are routinely integrated within decision-making.

Regulation that requires us to report on climate change in isolation shifts focus onto a prescribed set of measurement criteria. We are supportive of the objective of mandatory TCFD disclosure to increase the overall volume and quality of disclosure, facilitate market comparison, and drive industry standards forward but face tension from compulsory disclosure requirements which exceed current market capabilities. The challenge of how to comply when industry-wide data and tooling gaps cannot be solved for locally is still being worked through.

Involuntary practice gaps due to the nascency of tools and standards are probably felt most acutely by investors with large, complex, diversified global investment portfolios who recognise that a step change in capabilities requires the confluence of supportive government policy, clear benchmarks from standard setters, and the availability of data sets and portfolio modelling tools that extend to private market assets.

In our first TCFD Entity Report, we aim to combine specificity and brevity with openness about the challenges we face and the journey we, and the UK investment industry, are on to improve capabilities for quantifying, analysing, forecasting, and managing the complexities of climate change. We hope readers will take away interesting new insights from our report and we recommend supplementing these by dipping into our [Annual Report on Stewardship and Responsible Investment 2023/24](#) and our [Roadmap to net zero](#) which offer further explanation, elucidation, and examples of LPPI's ongoing work on climate change as part of responsible stewardship.

About LPPI

Local Pensions Partnership Investments Ltd (LPPI) is a UK based wholly owned subsidiary of Local Pensions Partnership Ltd (LPP). LPP is jointly and equally owned by the Lancashire County Council and the London Pensions Fund Authority, who are also clients of LPPI. LPPI is incorporated in England and Wales and is authorised and regulated by the Financial Conduct Authority.

We are an Alternative Investment Fund Manager (AIFM) and a MiFID investment firm with approximately £24.9 billion of assets under management (AUM) as of 31 December 2023, invested globally on behalf of Local Government Pension Scheme (LGPS) client funds and the committed capital of GLIL Infrastructure LLP (GLIL).

We employ around 140 professionals with experience across asset management, pensions, banking, and professional services. We are primarily based in London with some of the team based in Preston.

LPPI's services and delegated model

We are unique among the LGPS investment pools in that we provide whole scheme management, managing 100% of assets for our clients. Whole scheme management means we strategically manage client pension assets and monitor liabilities, helping our clients ensure sufficient funds are available to pay pensions as they fall due. Clients retain responsibility for their investment strategy but delegate fully to us the implementation of investment management activities.

The delegated model includes all sub-strategy, manager selection, and asset selection decisions. The delegated model helps us achieve economies of scale from which our clients can benefit, both by consolidating third party fund managers and the use of internal investment management. Our scale provides our clients access to a broad range of diversified investment opportunities implemented in a cost-effective and liability-aware manner.

Advisory services

We provide tailored advice to clients to support them in setting their strategic asset allocation and making other strategic investment policy decisions. We assist our clients to target and deliver appropriate risk adjusted returns, taking their assets and liabilities into account.

Investment management

We manage several in-house investment pooling vehicles (IPVs, or funds) that are aligned to what we define as asset classes: Global Equities, Fixed Income, Diversifying Strategies, Credit, Infrastructure, Private Equity, and Real Estate. The asset classes include the investments in our IPVs and any assets that remain on our client balance sheets for strategic reasons. Approximately 96% of our client assets are pooled within our IPVs.

All our IPVs, except for the Private Equity asset class, have been set up as alternative investment funds (AIFs) and we are the AIFM for these funds. Two AIFs have been set up as authorised contractual schemes (ACS), namely the LPPI Asset Pooling ACS and the LPPI Real Estate ACS. The LPPI Asset Pooling ACS has two sub-funds, the LPPI Global Equities Fund and the LPPI Fixed Income Fund.

The LPPI Credit Fund, LPPI Infrastructure Fund, and the Diversifying Strategies Fund have been set up as unauthorised AIFs in the form of limited partnerships. We manage separate unauthorised limited partnerships to hold our clients' private equity assets.

More information on our funds is available on our [website](#).

GLIL Infrastructure fund and The London Fund

We are also the AIFM for GLIL Infrastructure LLP (GLIL or GLIL Infrastructure). GLIL Infrastructure is an AIF whose founding members include or represent six LGPS funds, including Greater Manchester, Merseyside, and West Yorkshire pension funds – collectively known as Northern LGPS – and LPPI Infrastructure Investments Limited Partnership which represents investments on behalf of Lancashire County Pension Fund, Royal County of Berkshire Pension Fund, and the London Pensions Fund Authority. On 31 March 2018 GLIL Infrastructure moved to an open-ended fund structure that allowed for the admission of new members. A new partnership was agreed with the National Employment Savings Trust (Nest) in April 2021.

We are the appointed investment manager for the London Fund – a fund managed by The London LGPS CIV Ltd. The London Fund sources and selects sustainable projects with 80% of investments targeted within Greater London. The London Fund is marketed to the LGPS of the London boroughs and the London Pensions Fund Authority.



Background to TCFD requirements

The Financial Stability Board established the Task Force on Climate-Related Financial Disclosures (TCFD) in 2015 to improve and increase reporting of climate-related financial information. Their TCFD Recommendations and Recommended Disclosures, for voluntary adoption, set out how organisations across sectors and geographies should disclose climate-related financial information. The recommendations are structured around four thematic pillars that represent core elements of how organisations operate: Governance, Strategy, Risk management, and Metrics and targets.

The Financial Conduct Authority requires us to prepare and publish a report consistent with the TCFD Recommendations and Recommended Disclosures for our company (TCFD Entity Report) and TCFD reports for our authorised funds (TCFD Product Report) by 30 June 2024, covering a 12-month period to 31 December 2023. The TCFD product reports for our authorised funds: Global Equities Fund, Fixed Income Fund, and Real Estate Fund are located on our [website](#).

This report has been structured to provide disclosures across the following TCFD Recommendations and Recommended Disclosures framework:

Governance

The governance around climate-related risks and opportunities including our board's oversight of, and our management's role in assessing and managing, climate-related risks and opportunities.

Strategy

The actual and potential impacts of climate-related risks and opportunities on our business, strategy, and financial planning where such information is material.

Risk management

Our processes for identifying, assessing, and managing climate-related risks and how they are integrated within our overall risk management.

Metrics and targets

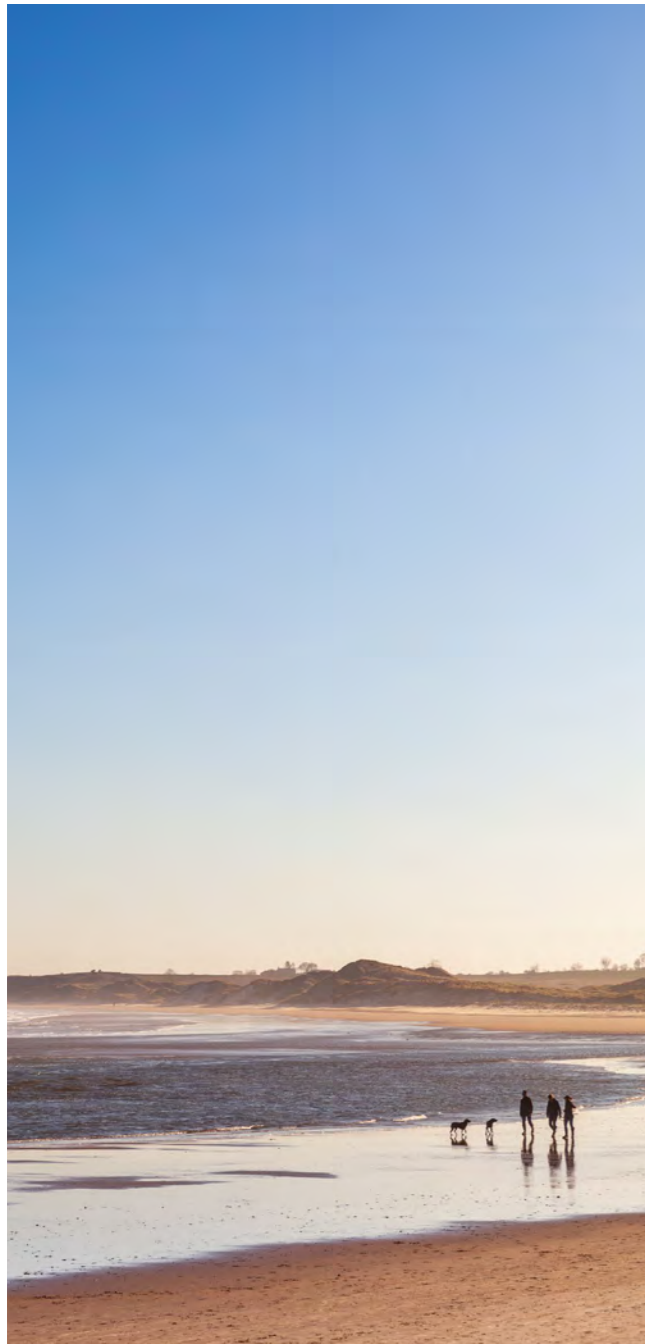
The metrics and targets we use to assess and manage relevant climate-related risks and opportunities where such information is material.

Governance

In this section we disclose our governance around climate-related risks and opportunities, including the role and oversight of our board and management.



Oversight of climate-related risks and opportunities

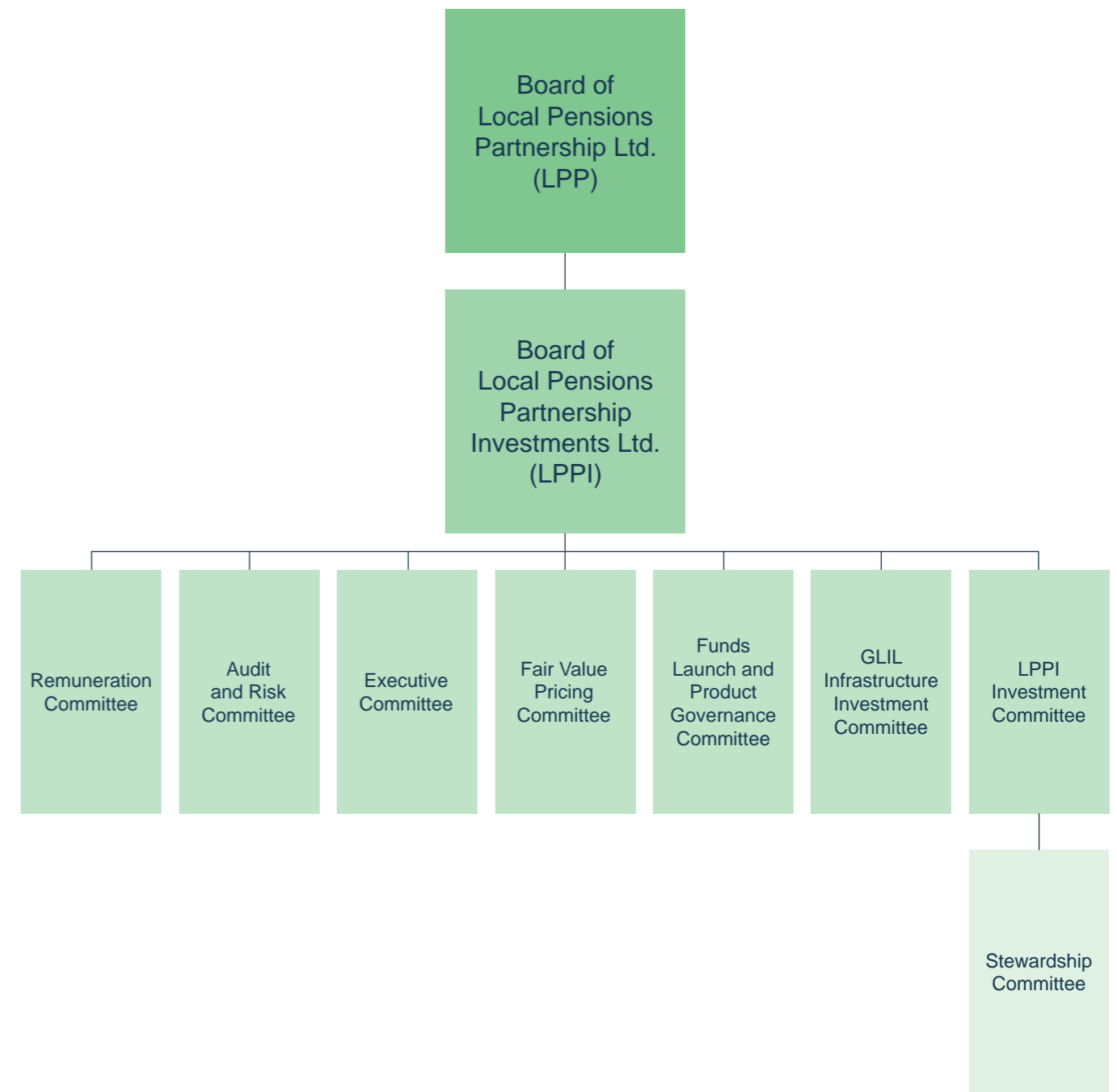


We have well developed governance, risk management and internal control frameworks which have been designed and implemented in proportion to the nature, scale, and complexity of our business. Through these frameworks our board, committees and senior management integrate climate-related risks and opportunities into our strategy, decision-making and business processes. Our governance arrangements are summarised in this section.

The Board is comprised of Non-Executive and Executive Directors, led by a Non-Executive Chair. The Board has established several committees, to which it has delegated certain activities, as detailed in each committee’s terms of reference.

The day to day running of the business is delegated to the CEO and the Executive Committee, whose members are the Chief Executive Officer, the Chief Investment Officer, the Chief Legal and Compliance Officer, the Chief Operating Officer, the Chief People and Culture Officer and the Chief Risk Officer.

The chart opposite shows our governance structure:



Directors' skills and experience

The Board has in place a skills and experience matrix which is reviewed annually to ensure that the required skills and experience remain appropriate. Further to that review, each Director is required to populate the matrix, indicating their level of skill and experience against each area listed. During 2023 the Board agreed to add net zero and TCFD in the matrix, to sit alongside responsible investment. Population of that revised matrix by the Non-Executive and Executive directors showed the Board would benefit from additional training in these two new areas. This had been anticipated due to the developing nature of these areas and to address the identified need for training and further familiarisation a Board deep dive on TCFD was scheduled for early 2024. Submission of reports and papers will further increase Directors' knowledge development which will be monitored by the Board.

The Board annually reviews its own performance and that of its committees. It also agrees an annual programme of deep dives, ensuring that Directors keep abreast of developments.



Board activity

The Board sets the overall direction and culture of LPPI, overseeing LPPI's performance against its business plan and maintaining oversight of the climate-related risks and opportunities posed by both our portfolio management activities and our corporate operations as a UK-based asset management company.

The Board approves the business plan, including its key strategic initiatives, one of the current initiatives being the ESG Programme – comprising net zero, TCFD and the FCA's Sustainability Disclosure Requirements. The Board receives status updates on the progress of all strategic initiatives at its quarterly meetings, with additional updates in the interim periods, as considered necessary or appropriate. Over the reporting period, the Board also received quarterly updates on the position of our Global Equities Fund against its net zero targets.

While the Board delegates certain decisions, there are several matters which are reserved to the Board. In relation to climate considerations this includes approval of certain of the Responsible Investment Policy annexes, noting the inclusion of a specific Climate Change Annex.

Further to consideration by the Audit and Risk Committee, the Board approves LPPI's risk policies and the Risk Appetite and Tolerances Schedule. This includes the risk management approach and risk appetite and tolerances with respect to climate-related and sustainability risks, as well as reputational and conduct risk.

Specific delegations and activity to support the management of all Environmental, Social and Governance (ESG) topics and appropriate reporting to the Board during the past year have been as follows.



Non-Executive Committees' activity

Audit and Risk Committee

This committee has a solely Non-Executive Director membership and assists the Board with its oversight responsibilities for present and emerging risks associated with LPPI's activities; and for the financial reporting process, the system of internal control, the audit process and LPPI's process for monitoring compliance with laws, regulations.

In relation to its risk related responsibilities, the Committee provides oversight of the enterprise-wide risk management and practices, the promotion of a sound risk culture with clear accountability and ownership, the review of key risks, and the assessment of the effectiveness and efficiency of the Risk function.

As part of carrying out these responsibilities, the Committee reviews LPPI's risk policies and the Risk Appetite and Tolerances Schedule which is used to define the Board's appetite and tolerance for risk. The position against this Schedule is reported quarterly to the Audit and Risk Committee and the Board, and in due course will include our position against the net zero targets for our Fixed Income and Real Estate Funds.

LPP Group Remuneration and Nomination Committee (dissolved in May 2023)

This Group committee reported to the different Boards in the LPP Group and was tasked with ensuring formal, transparent, and rigorous policies and procedures were in place for Executive Director remuneration. It also oversaw variable pay arrangements, guided by a Remuneration Policy and input from the Chief Risk Officer. Variable pay levels are based on an assessment which considers many factors, including performance against the delivery of strategic initiatives – one of which being the ESG Programme.

LPPI Remuneration Committee (established in June 2023)

This Committee met once in 2023 and has taken on the remuneration responsibilities specific to LPPI as set out above for the LPP Group Remuneration and Nomination Committee.



Management's role

Executive Committee

The Executive Committee assists the CEO with overseeing the activities of LPPI and determining key strategic and operational decisions under delegation from the Board. It also provides executive leadership of the business, taking responsibility for monitoring progress against the strategic initiatives and providing an escalation point for important decisions.

The Executive Committee has been closely monitoring progress with the ESG Programme through the receipt of monthly updates and regular formal and informal discussions.

Funds Launch and Product Governance Committee

Further to the Board's approval in principle, the Funds Launch and Product Governance Committee acts under delegation from the Board to carry out whatever work is necessary to, amongst other things, establish a fund, and in doing so ensures that any new fund proposals include consideration of any impact on climate-related risk objectives. The Committee also ensures that ESG factors are appropriately considered when reviewing product governance.

Fair Value Pricing Committee

The Fair Value Pricing Committee provides oversight and monitoring of LPPI's compliance with its Valuation Policy and relevant aspects of regulation. It seeks to identify any risks related to the valuation work, which could include climate-related matters.

Investment Committee

The Investment Committee acts under delegated authority from the Board and is responsible for monitoring investment performance and risk, investment proposals, ongoing asset management and investment strategy. The Committee reviews proposals for fund specific targets and all investment proposals either submitted to the Committee or approved under delegated authority from the Committee must include consideration of ESG factors for informed decision-making.

The investment process is managed by and reported on by the Investment Team as the first line of defence, with oversight provided by Risk and Compliance as the second line of defence.

GLIL Investment Committee

The GLIL Investment Committee is a committee of the LPPI Board (with LPPI appointed by GLIL as its AIFM) through which LPPI (as AIFM) executes investment decision-making for the GLIL Infrastructure Fund. This committee is responsible for the monitoring of investment performance and risk, investment proposals, ongoing asset management and compliance with GLIL's investment strategy. All investment proposals submitted to the GLIL Investment Committee must include consideration of ESG factors, for informed decision-making.

Stewardship Committee

The Stewardship Committee operates under delegation from the Investment Committee, with the Board informed of the Stewardship Committee's activity. Its role is to monitor compliance with the Stewardship Code (and other related best practices), also to develop and deliver a co-ordinated approach to stewardship and engagement across LPPI's portfolio. Other responsibilities of this Committee include consideration of relevant ESG issues and reviewing policies on Responsible Investment and Stewardship.

It has supported the Investment Committee and the Board to develop their understanding of the need for a greater focus on ESG, has documented the growth of reporting expectations and provided advice and guidance regarding the development of LPPI's arrangements and governance related to climate change considerations.

ESG Programme

Reflecting that climate-related matters touch the breadth of our advisory and investment management activities we have established an ESG Programme, sponsored by our Chief Legal and Compliance Officer, with a Steering Committee and multiple Working Groups to bring staff with subject matter expertise and relevant delivery responsibilities together with project management. The Steering Committee comprises the Chief Investment Officer, Chief Legal and Compliance Officer, Head of Enterprise Risk, and Head of Responsible Investment, ensuring senior management involvement and sponsorship.

Strategy

In this section we disclose our framing of climate related risks and opportunities as part of portfolio and business strategy and management.

Our purpose and strategy

Our corporate purpose is to deliver first class, value for money investment outcomes aligned to our clients' interests. We achieve this by bringing our expertise and spirit of collaboration together to help our clients invest sustainably in better futures.

Our strategy is to deliver sustainable investment returns for our clients, by seeking investment performance whilst managing and mitigating potential risks to their investment portfolios, including the exposure to climate-related risks. Our strategy centres on evaluating risks and opportunities as part of informed investment decision-making.

We are alive to and actively engaged in understanding a new investment context which is dynamic and changing under the stimulus of regulation, public sentiment, technological advance, and increasing demand and stipulation for corporate disclosure focused on emissions management and decarbonisation.

Our dedicated ESG Programme was established to support our decarbonisation strategy and manage climate-related risks and opportunities, which seeks to take a coordinated approach to the various regulatory and voluntary initiatives we are working on as an organisation. In addition to senior involvement through the ESG Programme, we have also hired additional expertise to support the aims of the ESG Programme to meet regulatory requirements and to enhance our climate-related risk management and reporting.

Furthermore, we have sourced systems and data that enable us to monitor and report on our net zero targets and alignment with the TCFD recommendations. These investments demonstrate our commitment to managing climate-related risk and opportunities and complying with relevant regulations.

We recognise the importance of anticipating how the dynamics of the transition to net zero are likely to affect the investments we make on behalf of our clients and ensuring we are well-prepared to respond to the related risks and opportunities presented. We have voluntarily made a public commitment to the goal of aligning our portfolio with net zero emissions by 2050. This recognises the importance we are giving to this work. Our net zero commitment is approved by our Board and is a priority objective identified in our business plan. To date we have established net zero targets for our Global Equities, Fixed Income, and Real Estate Funds.

Climate-related risks and opportunities

We define climate-related risk as the potential adverse impact on our ability to deliver our strategic objectives resulting from changes in the global climate. The adverse impacts could be financial, operational, or reputational and have the potential to arise from:

- **Physical Risk**

The risk of adverse changes in values of assets or income streams because of climate change, such as flooding or weather events, directly on physical assets (for example property) or indirectly (for example business disruption, resource availability, or disruption to supply chains or service providers). Physical risks can be acute, which are event driven, and chronic, which are longer-term shifts in climate patterns.

- **Transition Risk**

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



Climate-related risks and opportunities for our clients' assets

Our revenue is derived from the market values of the assets we manage for our clients, and therefore we consider our main exposure to climate-related risks and opportunities to be through the £24.9 billion (31 December 2023) of client assets under management. Therefore, it is necessary for us to continually consider how transition risks and physical risks could affect the assets already within the portfolio, and impact on the universe of assets we could select from when implementing the investment strategies set by our clients.

The actual and potential impacts of climate-related risks and opportunities will have negative and positive influences on the value of our clients' assets and the resilience of investment returns from our investment management activities. This includes the costs associated with the mitigation and adaptation to climate change, or the impact of physical climate events on the value of our assets under management. We also acknowledge that we cannot predict or control all the factors that may affect our investments and operations in a changing climate, and that we may face trade-offs and challenges in balancing our short-term and long-term objectives. Therefore, we aim to be flexible and responsive to the evolving climate landscape, and to seek out new opportunities and solutions that can enhance our resilience and value creation in a low-carbon and climate-resilient future.

The below table outlines the climate-related risks and opportunities we have identified over the short, medium, and long term. Our approach for the identification of these risks and opportunities was based on the categories defined by the TCFD Recommendations and adapted for our business model.

Our short-term horizon looks at a three-year period, which aligns with our business plan horizon and the triennial valuations of our pension scheme clients. Our medium-term horizon looks forward up to 10 years, which covers the period to our interim investment net zero commitments. Our long-term horizon looks forward to 2050, the target Net Zero-time horizon for our investment portfolios. Many of these risks can be relevant to the short, medium, and long-term time horizons and therefore we have disclosed the primary timeframe within which we expect the risk could potentially materialise. These risks have been identified to support investment decision-making and we plan to integrate this activity more fully into our decision-making and our regular risk management activity, as described in the Risk Management section of this report.

We have considered how climate-related risks and opportunities could impact our clients' assets if they materialise and have provided illustrative insights below including impacts on income streams, costs, write-offs, and early retirement of existing assets. We also recognise the potential impact on our revenue.

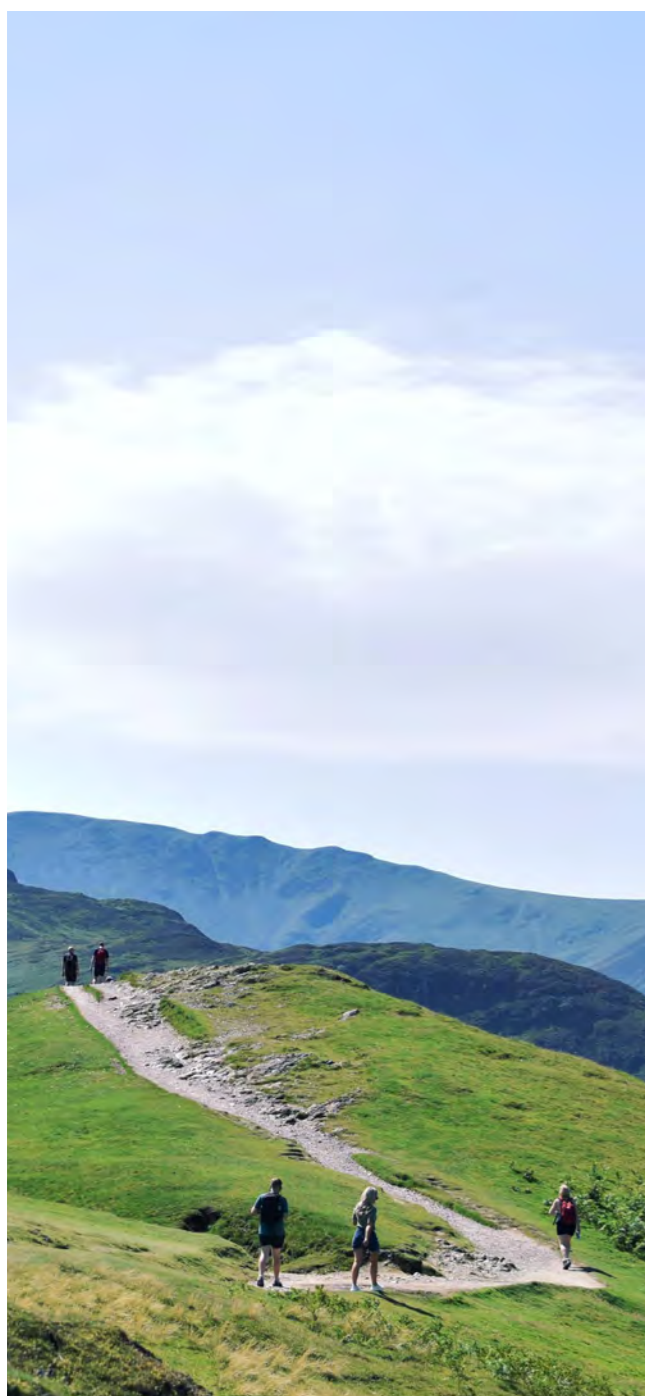
Risks

Category	Description	Illustrative impacts	Primary timeframe	Impact on LPPI
Transition: Technology	Changes in technology, obsolescence, or new technology failure	Obsolescence of existing technology or new technology failure leading to investment write-offs and early retirement of assets	Medium term	Decreased AUM and revenue
Transition: Policy and legal	Changes in laws, regulations, or policy guidance	Increased capital expenditure to comply with regulation requiring more energy efficient assets	Short term	Decreased AUM and revenue
		Increased regulatory and legal costs to comply with changing regulation and laws	Medium term	
		Increased costs associated with processes changing to alleviate GHG emissions	Medium term	
Transition: Market and reputation	Changing demand for and supply of investee company assets and products	Reduced consumer demand for the assets or products of the companies we invest in due to higher input costs or reputation leads to reduced asset values and income streams	Medium term	Decreased AUM and revenue
Physical: Operational	Acute and chronic climate impact on physical operations	Investee company operations or assets affected by physical effects of climate change require increased recovery costs, insurance costs and capital expenditure	Long term	Decreased AUM and revenue
		Physical damage to investee company operations or assets resulting in investment write-offs and early retirement of assets	Long term	

Opportunities

Category	Description	Illustrative impacts	Primary timeframe	Impact on LPPI
Resource efficiency, energy source	Investment in more energy efficient companies or assets or those that shift towards low emission energy sources	Investing in companies that are positioned to benefit from a global transition to lower carbon could improve investment performance	Short term	Increased AUM and revenue
		Investing in companies using technologies to improve energy efficiency and sources could lead to increased income streams	Medium term	
Markets, products and services	Access to new markets, products and services, and enhanced portfolio diversification	Access to new and emerging markets could increase investment returns	Short term	Increased AUM and revenue
		Portfolio diversification by investing in new assets with superior emissions profiles and returns	Medium term	
Resilience	Investment in resilience to acute and chronic climate impacts	Investing in companies that are financing and supporting the development of resilient and sustainable solutions	Long term	Increased AUM and revenue

Climate-related risks and opportunities for our business



In addition to our exposure to climate-related risks and opportunities through the assets we manage on behalf of our clients, we are also exposed to financial, operational, and reputational risks through the effect of climate change on our business and our operations, for example our staff, physical infrastructure, IT, and third parties.

These risks could impact the values of the assets and liabilities on our balance sheet, or increase any costs required to manage, mitigate, or adapt to climate change or to ensure the functional and operational resilience of our business. For example, over the year to 31 December 2023, we continued to invest in staff with expertise, consultants, and data and systems to further develop operational and investment management capabilities with respect to climate-related risk management, going beyond traditional risk assessments.

Costs may be incurred for physical climate events that impact our operations, or those of our outsourced service providers.

The following table provides an overview of the climate-related risks and opportunities that we have identified and their potential impact on our business.

Risks

Category	Description	Illustrative impacts	Primary timeframe	Impact on LPPI
Business risk	Changing demand for our products and services	Inability to provide products and services to meet our clients' climate-related demands leading to loss of business	Medium term	Decreased AUM and revenue
		Inability to meet differing client climate-related demands under a pooling model leading to loss of business	Medium term	Decreased AUM and revenue
		Low availability of investment opportunities leading to overpriced assets and reduced income streams	Short term	Lower revenue
Reputation risk	Negative perceptions of actions or inactions could impact client relationships	Redemptions if our corporate approach to management of climate-related risks do not reconcile with client expectations	Medium term	Decreased AUM and revenue
		Association with suppliers who do not meet our client expectations regarding the management of climate-related risks	Medium term	
Operational risks	Acute and chronic climate impact on physical operations	Business disruption for LPPI or our suppliers resulting in poor delivery of products and services to clients	Medium term	Increased costs
		Operations affected by physical effects of climate change requiring increased recovery costs, insurance costs and capital expenditure	Long term	

Opportunities

Category	Description	Illustrative impacts	Primary timeframe	Impact on LPPI
Business	Changing demand for our products and services	Developing products and services that meet client expectations around managing climate-related risks and opportunities	Short term	Increased AUM and revenue
Reputation	Positive perceptions of actions may positively influence current and potential client relationships	Potential to attract new business if corporate approach to management of climate-related risks align with client expectations	Medium term	Increased AUM and revenue

Resilience of our strategy

Climate scenarios are tools to help understand the potential risks and opportunities associated with different climate futures. We believe that incorporating climate scenarios may assist us in understanding the impact of climate-related risks and opportunities on our business, strategy, and financial planning, with a view to better managing our outcomes and those of our clients by understanding the risks posed to their funding goals under different scenarios and the impact on their strategic asset allocations. It is important to note that scenarios are not predictions but rather are a dynamic iterative process for exploring what might happen under different conditions, allowing for more informed decision-making.

We have undertaken initial scenario modelling using our asset-liability modelling tool using [Network for Greening the Financial System \(NGFS\)](#) scenarios, which have been widely used by central banks and the financial sector, giving us three scenarios to consider alongside our baseline. During the period, we purchased asset-liability modelling scenario analysis services from our provider, carried out training with the investment team and facilitated workshops with the Investment Committee and supporting teams on the use case, process, results and limitations of the current methodologies available to us.

This was an important foundational step to build the knowledge and critical thinking capacity needed internally to understand the outputs and eventually support the embedding of scenario analysis in decision-making processes. Alongside this top-down analysis of client funding projections, we have begun a bottom-up assessment on our asset classes from NGFS scenarios using MSCI ESG's Regional Model of Investment and Development (REMIND) model.

We are still developing our approach to climate scenario analysis and will be building on our existing approaches to assessing climate-related risks using scenarios, including considering whether the NGFS scenarios are appropriate and what form of quantitative or qualitative analysis is best suited to useful decision-making. While we have not yet used the results, we have an ambition to be able to use these climate scenarios in our decision-making and financial planning processes and to identify vulnerabilities, optimise resource allocation, and ensure long-term resilience. This strategic foresight may not only enhance our ability to adapt to a changing climate but could also position us to capitalise on emerging opportunities from the transition.

We recognise that climate scenarios are subject to uncertainty and limitations, and that we need to monitor and update our assumptions and methodologies as new data and evidence become available. There are alternative approaches developing to assess climate-related risks and opportunities and their impact on strategy. Our views are anticipated to develop and therefore we will assess or change our approach accordingly.

As is inherent to all scenarios the NGFS modelling involves significant assumptions and limitations, particularly with reference to the impact of physical risks and tipping points. Scenario analysis and modelling is challenging and has limitations because the outcomes are highly uncertain and unpredictable, particularly over the longer term and the modelling and interactions between variables is complex. For these reasons, we have not used the results from the completed scenario analysis for investment or risk processes and we have chosen not to disclose the results in this report.

We have considered proactive and responsible actions that we could take under climate scenarios that would ensure the resilience of our business, strategy, and financial planning. We plan to undertake further work in this area and recognise there are opportunities for further integrating climate scenarios into our decision-making. Some of the actions that we have considered include:

- Monitor and evaluate our exposure to sectors highly susceptible to transition and physical risks.
- Engage with companies, policymakers, and other stakeholders to encourage and support the orderly transition to a low-carbon economy and to enhance climate resilience and adaptation.
- Where there is strong evidence that a particular climate scenario is likely to materialise, adjust our portfolios to optimise the changing risk-return profile of different assets and sectors, and to capture the opportunities arising from the green transition.

Risk management

In this section we disclose how we identify, assess, and manage climate-related risks for the portfolio of assets we manage on behalf of client pension funds and for our business.

Assets we manage

Our management of climate-related risks for our client assets is based on incorporating climate-related considerations into investment decision-making as part of our core processes of underwriting, asset management, and stewardship. Our approach to systematically integrating ESG considerations accommodates a specific focus on climate change.

Identifying and assessing climate-related risks

Each of our asset classes is governed by an investment mandate and statement of investment guidelines. These include a requirement for our portfolio managers to consider ESG issues, including climate-related risks, in their investment analysis and decision-making processes. The requirement to consider ESG issues reflects the commitments we have made as a signatory to the [Principles for Responsible Investment](#), UK Stewardship Code, and the Net Zero Asset Managers (NZAM) initiative. Investments are approved by our Investment Committee or by our Chief Investment Officer under delegation from that Committee, in accordance with our investment governance framework.

Where we delegate the management of our client assets to external managers, our External Manager ESG Rating Framework includes a detailed due diligence questionnaire which informs our detailed selection, appointment and evaluation of external managers. The questionnaire includes specific questions on: i) how external managers assess, monitor, and report on climate change, ii) their approach to responsible investment, and iii) the integration of ESG factors into their investment processes.

ESG issues, including climate-related risks, alongside engagement priorities and progress are reviewed and monitored at our quarterly and annual asset class review meetings, which are also attended by our dedicated Responsible Investment team and our second line Risk function. Climate risk analytics reports, which include the status against net zero targets, have been developed for Global Equities, and more recently for Fixed Income and Real Estate, and will be developed for the remaining asset classes over time. The climate risk analytics reports, prepared by our Risk function, are considered at the quarterly asset class review meetings.

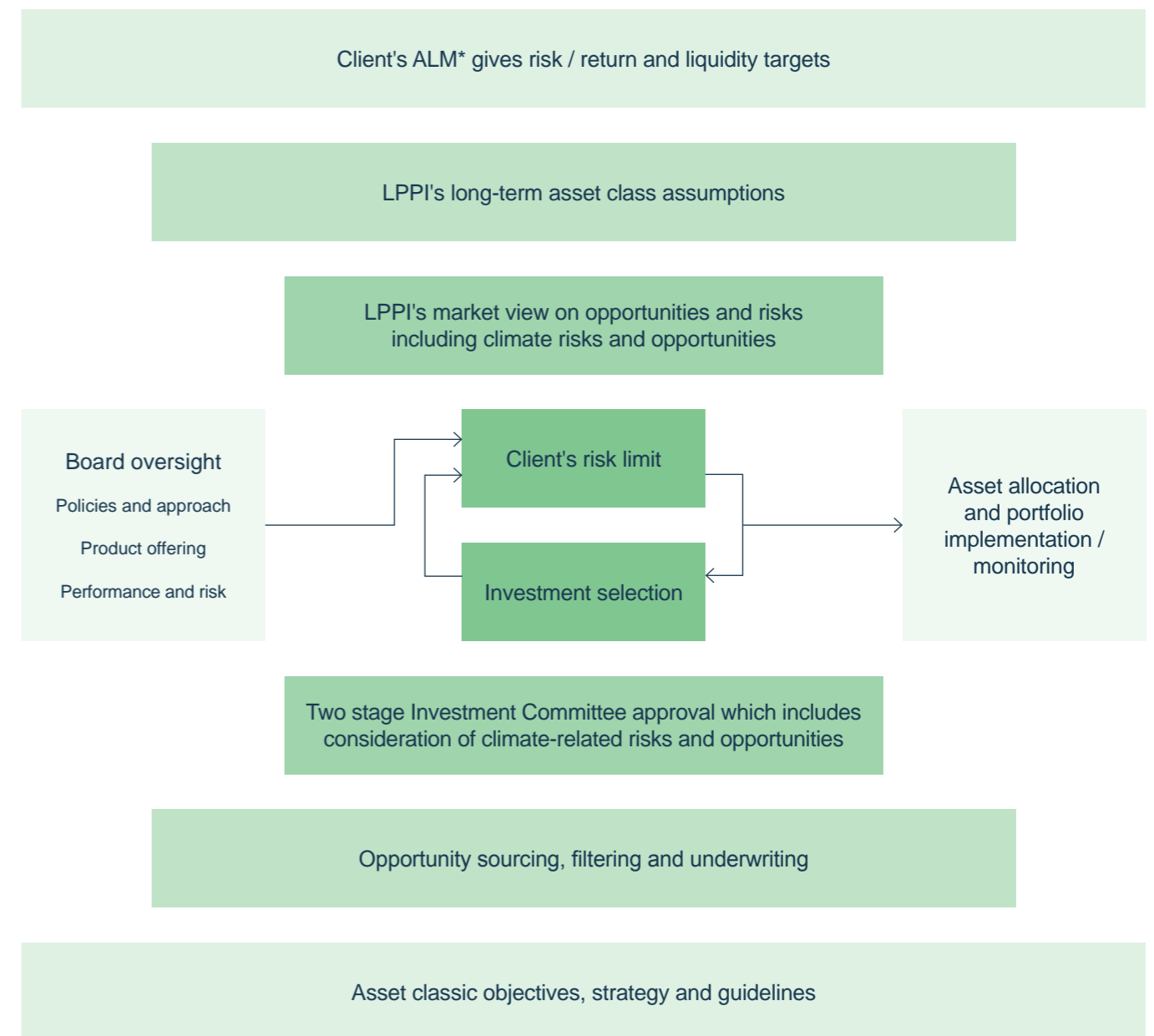
Investment process



A paper summarising the activities and discussions held at the asset class review meetings is provided to the quarterly Investment Committee by our Chief Investment Officer, including action logs with status updates. In addition, in line with the annual asset class review schedule, the portfolio managers provide a paper to the Investment Committee to update the members on their ESG activities and statuses against their net zero targets. The status against net zero targets includes assets that are managed by our external managers.

In addition, meetings were held with our portfolio managers to identify the climate-related risks and opportunities specific for each asset class. We are developing a climate-related risk management framework where these risks will be reviewed, updated, and monitored on a regular basis.

Investment process



Managing climate-related risks

We monitor exposure to high emitting sectors and activities likely to lose value because of global industrial transition. This informs our stewardship, voting and engagement activities which are discussed as part of the quarterly and annual asset class review meetings. We also assess climate-related investment opportunities. For example, we have invested into companies and projects which contribute to the transition towards a less carbon-intensive economy and our portfolio includes infrastructure investments in renewable energy generation, solar, district heating, and low carbon transport.

We seek to ensure that companies or assets are taking steps to manage the exposure to risks from climate change that they have identified and can therefore better withstand the change in industry landscape, as well as better navigate oncoming regulatory changes. For instance, we routinely assess the energy and resource efficiency of prospective and existing physical assets in our infrastructure and real estate portfolios. In partnership with our delegated investment manager, current and prospective assets within the UK Directs are routinely assessed against recognised risk thresholds for flooding, a material physical climate risk in the UK. However, there is more to do to encourage the companies and assets in our portfolio to prioritise and make plans to transition their businesses towards net zero emissions and build resilience to physical climate risk.

Identifying and managing the risks from climate change requires quantitative measurement along with qualitative interpretation. The availability of accurate data to assess climate-related risks is a challenge and we are continually seeking data and tools to help assess the position of our asset classes and to inform our ongoing dialogue with external managers around their evaluation of the climate change risks in their portfolios. Our main focus of quantification to date is Global Equities where information is most readily available. For instance, we are using Transition Pathway Initiative (TPI) and Climate Action 100+ (CA100+) methodologies alongside data from CDP and our data and analytics provider MSCI as part of our application of the NZAM framework to aid our assessment of Global Equities. Learning gained here is being used to inform the more challenging and ongoing tasks of assessing the position of the remaining asset classes.

We monitor sectors that are most likely to be impacted by transition risk using the Global Industry Classification Standard (GICS). GICS is widely used by finance firms and covers 11 industry sectors. We currently view Utilities, Energy and Materials as carbon intensive sectors. We have already taken measures to reduce exposure to climate related risks through a focus on high emitting sectors. Pure play, thermal coal (i.e. a stock issued by a company that only operates in the thermal coal industry) has been excluded from our portfolio since 2019 and our Global Equities Fund has excluded extractive fossil fuel companies since the end of 2021.

Listed companies covered by TPI metrics (which focus on globally high carbon sectors) are flagged upon entry to the portfolio. TPI Management Quality Scores are used to assess the quality of corporate climate change risk management and, where warranted, companies are subject to enhanced due diligence and may be flagged for further engagement where improvement is needed.

In partnership with our delegated investment manager, our Real Estate investment team reviews, assesses, and monitors climate-related risks and opportunities that arise from the current portfolio or that may arise from new investment opportunities. We also use the Carbon Risk Real Estate Monitor (“CRREM”) tool to inform our assessment of where remediation is required to meet our net zero commitment and calculate the retrofit budget needed to upgrade properties. The CRREM tool supports companies in assessing the required reduction in carbon emissions at asset level.

Engagement is an integral part of our approach to help ensure that short-, medium- and long-term climate-related risks are being addressed given the systemic risk climate change poses. We work with service providers who support our asset management and stewardship activities to use the ownership powers available to us and employ the approach most likely to have a positive influence.

These include a proxy voting provider who supports our exercise of shareholder voting rights for our Global Equities Fund, and an external engagement provider who extends the resources we dedicate to engaging with publicly listed companies. Climate change can be viewed as an evergreen engagement theme for us as any facet of climate-related risk may influence an investee’s ability to meet its financial obligations.

Effective management of climate change is a priority theme in our shareholder voting guidelines and we regularly join collaborative engagements and advocate for supportive policy through dialogue with regulators, standard setters, industry groups, and non-governmental organisations on matters related to net zero alignment and climate risk. We also engage directly with investee companies and external managers, setting explicit expectations for managers and service providers who engage on our behalf via feedback surveys, side letters, and ongoing monitoring calls. Our priorities for engagement reflect the materiality of issues to the portfolio we oversee, and we take account of client interests and priorities. Our Stewardship and Responsible Investment Report provides examples of our engagement activities and is available from our website.



Our business

In addition to evaluating the risks and opportunities related to climate change at the portfolio level, we also consider how they might affect our corporate strategy and business model. We identify and assess both the key risks to our corporate strategy and business model, and emerging risks, which are trends or potential future impacts where the nature and timing of impact are uncertain.

Emerging risks help us to identify potential risks that could impact us in the future so that we can develop plans or position our company and our funds to mitigate or minimise their potential impact if they arise. Emerging risks are identified from internal and external sources and consider geopolitical, macroeconomic, legal, regulatory, operational, technological, and business and strategic risks. Our emerging risk register includes our potential exposure to physical and transitional climate-related risks arising from emerging regulation.

Key risks to our corporate strategy and business model relate to the short term and are identified as part of the annual business planning process and include the potential impact of climate change.

Both key and emerging risks are reviewed, assessed, and updated on a quarterly basis with subject matter experts within the business. These risks are reported quarterly to our Executive Committee, the Audit and Risk Committee and to our Board.

In addition, our Compliance function hosts a quarterly Regulatory Change Working Group which is attended by key people across all functions within LPPI. The purpose of the working group is to identify and track regulatory change and, where appropriate, to ensure appropriate action is taken in response to Regulatory Change.

Over the period to 31 December 2023, we carried out a series of workshops and meetings across the business to inform our staff of our regulator's climate-related reporting requirements and timeframes, and to further identify and document climate-related risks and opportunities.

The key risks impacted by climate-related risks are as follows.

Business risk

Business risk is the risk arising from exposure to factors or events which, if allowed to crystallise, could materially reduce our revenue, or increase expenses. The main factors or events include a decrease in assets under management or a change in the mix of investment portfolios (reduction in fee income), or a sudden or material increase in the level of ongoing operational costs.

We may lose clients or fail to attract new clients if we cannot meet our client demand or expectations, which includes addressing the risks and opportunities arising from climate change. In addition, given our pooling model, there is a risk that we cannot meet conflicting demands in this regard. For instance, some clients may prefer a lower carbon footprint or a higher exposure to green sectors, while others may prefer more transparency and reporting on the climate impact of their portfolios.

In response, we engage regularly with our clients to ensure that we continue to offer services and products designed to meet their needs. For each of our asset classes, the investment strategies are constructed to manage our short-, medium- and long-term responsibilities to both our clients and our shareholders, taking account of applicable regulations. As our clients have long-term obligations to pay pensions, our investment approach is also long dated.

Our decarbonisation approach requires a transitional shift to lower-carbon investments, whilst also maintaining a well-diversified portfolio across all sectors. It is important to in the short to medium term, we will focus our efforts on understanding the sources of carbon intensity and encouraging companies to take action to reduce them. In the long-term we expect negative emissions to play a critical role in balancing out residual emissions to achieve net zero in both the real world economy and investor portfolios.

To support our decarbonisation strategy and manage climate-related risks and opportunities, we have established a dedicated ESG Programme which seeks to take a coordinated approach to the various regulatory and voluntary initiatives we are working on. The ESG Programme has senior involvement with a Steering Committee comprised of the Chief Investment Officer, the Chief Legal & Compliance Officer, the Head of Enterprise Risk, and the Head of Responsible Investment. We have also hired additional expertise to support the aims of the ESG Programme, to meet regulatory requirements and to enhance our climate-related risk management and reporting. Furthermore, we have sourced systems and data that enable us to monitor and report on our net zero targets and alignment with the TCFD recommendations. These investments demonstrate our commitment to managing climate-related risks and complying with relevant regulations.

Reputation risk



We define reputation risk as the risk that the perception of us and our approach to doing business is not aligned with delivering our strategic aims. The outcomes include reputational damage impacting existing client confidence and the future ability to grow the business and the risk that strategic actions are taken which either damage our brand or are not aligned with delivering our strategic aims.

Climate risk is an increasingly key concern for regulators and clients. Institutional clients are engaging more on climate risk which has the potential to cause reputational damage if we are unable to adequately address their needs and concerns. Engagement with our clients on our approach to integrating climate-related risks and opportunities forms part of our strategy. Alongside supporting our clients with their own requirements, for example through the provision of training and education on TCFD, we also engage with our clients collectively to share our insights. This includes both via frequent written communication and at the annual LPPI Investment Conference.

We also consider the impact that our third-party providers could have on our reputation, and we include questions in our operational due diligence questionnaire for new and continuing third parties around their adoption of climate-related policies or frameworks, such as net zero targets, science-based targets, TCFD reporting, and TPI. We also ask our third-party service providers to provide their environmental or sustainability policies.

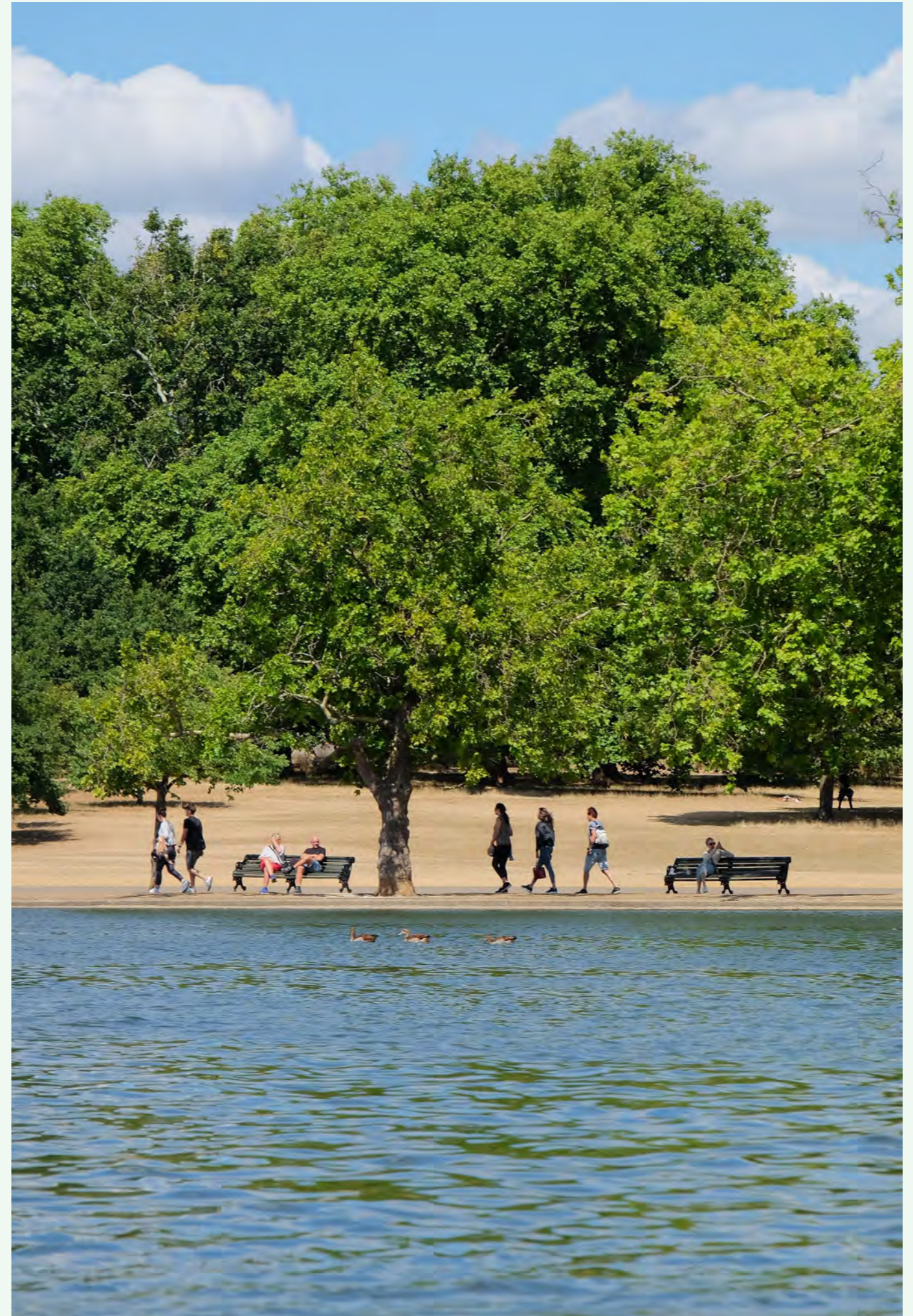
Operational risk

Operational risk is the risk of loss from inadequate or failed internal processes, from personnel or systems, or from external events. Our definition of operational risk includes regulatory and legal risks.

One of the potential impacts of climate change is the increased frequency and severity of extreme weather events, such as heat waves, floods, storms, or wildfires. These events could affect our physical assets, such as buildings, infrastructure, equipment, or data centres, as well as our human capital, such as employees, contractors, or suppliers. Climate change could also affect the availability and reliability of critical services that we depend on, such as electricity, water, telecommunications, or transportation. Any disruption to our operations or those of our third-party providers could impair our ability to deliver our services to our clients and harm our reputation, revenue, and profitability. Therefore, we consider climate change as a material operational risk, and we take appropriate measures to mitigate it.

We are committed to providing high-quality services to our clients. As such, we continue to ensure that we have resilience against external threats, including climate-related risks, that could cause disruption to our services. For example, we regularly maintain and test our business continuity planning and technology disaster recovery programs. We also operate a hybrid working model which allows staff to work from home without any disruption in the event of the loss of use of our offices. We also include questions in our operational due diligence questionnaire for new and continuing third parties around their business continuity and disaster recovery programmes.

Additionally, we could face regulatory or legal risks if we do not comply with the evolving standards and frameworks for climate-related disclosures and risk management.



Integrating climate-related risks into LPPI’s overall risk management

We are committed to continually strengthening and evolving our risk management activities to ensure they keep pace with business change and client expectations. We believe a key factor in our ability to manage through challenging market conditions and business change is our integrated approach to climate change risk management.

We adopt an enterprise-wide perspective on risk facilitated through commitment to a strong risk culture. Our ambition is to protect our obligations to our clients and treat them fairly, whilst making better risk-return based business decisions resulting from a balanced awareness of the opportunities and threats; only taking risks we have the capability to understand and manage. We achieve this by linking our strategic objectives and approach to risk management through to the key business processes.

Primary responsibility for climate-related risk management is with the investment teams with a second line of defence provided by our risk and compliance teams.

Our risk policies, supported by the Risk Appetite and Tolerances Schedule, provide a framework for managing risk and form an integral part of management and board processes, including decision-making processes.

The Risk Appetite and Tolerances Schedule includes the risk limits and acceptable bounds for these factors and statements within which management may operate to ensure the safe delivery of the plan. The status against the risk limits and acceptable bounds is reported quarterly to the Audit and Risk Committee and to the Board.

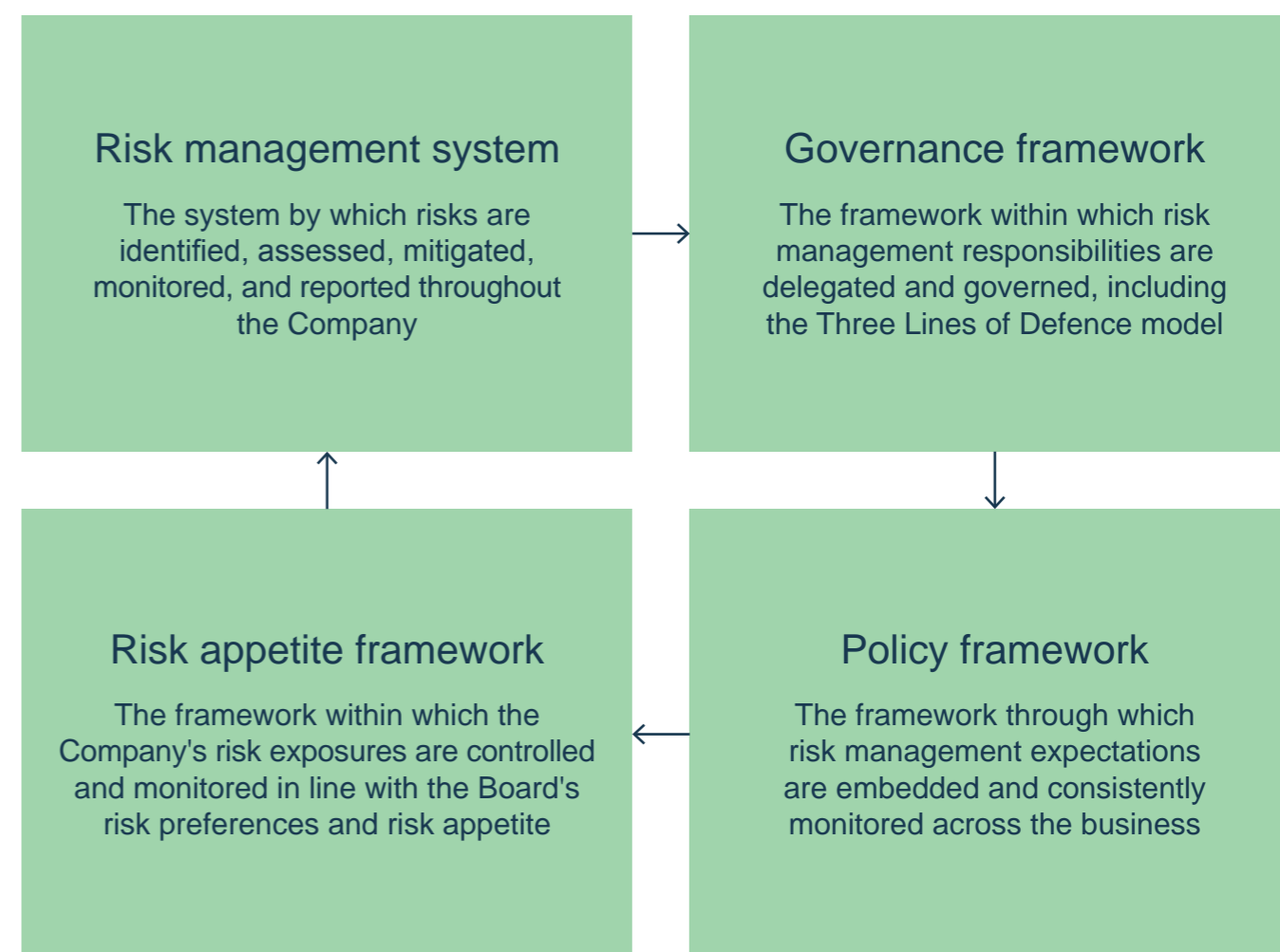
The Risk Appetite and Tolerances Schedule includes the net zero targets for Global Equities and the status is reported to the Audit and Risk Committee and to the Board. The Risk Appetite and Tolerances Schedule will be updated in 2024 to include the net zero targets for Fixed Income and Real Estate. The net zero targets for the remaining asset classes will be incorporated into the Risk Appetite and Tolerances Schedule as and when they are approved by the Investment Committee.

Our risk policies include our Climate Change Risk Policy which defines what climate change risk means for us and how the risk should be identified, monitored, managed, and reported. However, we do not see climate change as a standalone or separate risk and therefore climate-related risks are considered across the enterprise risk system including business, reputational, and operational risks. We believe that this approach ensures that climate financial risk is considered throughout our enterprise risk management system.

Our Risk Management Policy articulates the approach, appetite, and expectations in relation to the management of risks that, should they materialise, have the potential to cause material harm to our clients and counterparties, the markets within which we operate, and to ourselves.

Our Risk Management Policy also supports meeting the expectation of our stakeholders.

The enterprise risk system is outlined in the following diagram:



Metrics and targets

In this section we disclose the metrics we are using to assess and monitor climate-related risks and opportunities and the targets we have set.



Carbon footprint of our assets under management

We use a range of metrics to identify and assess climate-related risks and opportunities, and track progress against our targets. This includes absolute metrics as well as intensity-based indicators that enable comparison across different issuers, portfolios, and transition scenarios. The key definitions and formulas used for calculating emissions metrics are set out in the appendix to this report.

We employ a variety of tools, including third-party carbon data from MSCI carbon portfolio analytics, to evaluate climate-related risks and opportunities. This data is used to generate a carbon footprint facilitating internal analysis of carbon risks. By doing so, we can identify the most significant emitters and understand contributors to the carbon footprint. The resulting data and insights are then shared with our portfolio managers to inform their analysis and investment decisions.

In common with our peers we face challenges in sourcing data for private market assets, without which portfolio-wide analysis is not yet a realistic possibility. For public market assets where coverage is strong, challenges lie in the consistency with which emissions data is being reported by companies and in the different ways data providers solve for incomplete data through aggregation, estimation and modelling.

We currently rely on Scope 1 and 2 GHG emissions to inform investment decisions, and this can include both reported and estimated data. While we monitor Scope 3 emissions to inform our alignment and engagement targets, data quality and disclosure of this emissions category remains poor making it less reliable for decision-making.

To assess and manage climate-related risks and opportunities, we also use a combination of local measures specific to particular asset classes, for example flood risk and energy efficiency ratings for our UK Directs. This allows us to track changes in the climate-related risks and opportunities affecting the portfolio over time as an aid to target engagement with managers.

Table 1 below shows the proportion of carbon emissions data for our asset classes that is reported and where there is currently no data available.

Data coverage for public market assets (listed company shares and corporate bonds) is high. Data coverage for private market assets is significantly weaker due to current standards of disclosure, which is an industry-wide issue.

Both coverage and quality are also relatively poorer for certain holdings, such as investments in emerging markets, private equity, cash, and derivatives. We are reliant upon companies, asset managers, and data providers for better access to the data required to calculate metrics. We continue to engage with the industry, including our external managers and data providers, to increase the proportion of reported data.

Table 1: Data availability

Asset class	% of LPPI assets under management	% of asset class covered in this report	% reported emissions data	% estimated emissions data	% total reported and estimated emissions data	% no emissions data
Global Equities	49%	100%	98%	0%	98%	2%
Fixed Income	3%	17%	87%	0%	87%	13%
Diversifying Strategies	2%	0%	0%	0%	0%	100%
Credit	13%	21%	90%	10%	100%	0%
Real Estate	9%	55%	100%	0%	100%	0%
Infrastructure	14%	45%	57%	32%	89%	11%
Private Equity	9%	0%	0%	0%	0%	100%

Global Equities, Fixed Income and Credit

The data in the tables below is for public market assets comprising Global Equities, Fixed Income and Credit.

Currently climate-related risks and opportunities are monitored for the corporate bonds held within Fixed Income and Credit.

We are at present unable to directly monitor the climate-related risks for the remaining holdings (such as sovereign bonds, asset-backed securities, and derivatives) due to a lack of data availability and lack of market solutions and methodologies to do so. We continue to engage with the industry, including our delegated managers and data providers, to increase the proportion of reported data.

Table 2: Emissions and alignment metrics for Global Equities, Fixed Income and Credit (31 December 2023)

Climate metrics	Unit of Measurement	Global Equities 31/12/22	Global Equities 31/12/23	Fixed Income 31/12/22	Fixed Income 31/12/23	Credit 31/12/22	Credit 31/12/23
Scope 1 and 2 emissions	tCO ₂ e	189,849	182,394	907.09	5,070	62,192.0	83,836.5
Scope 3 emissions	tCO ₂ e	1,982,381	3,296,614	25,686	28,436	207,936.2	345,348.4
Total carbon emissions	tCO ₂ e	2,172,230	3,476,008	26,593	33,506	270,128.2	429,184.9
Total carbon footprint (Scope 1 and 2)	tCO ₂ e /\$m invested	19.2	16.6	16.1	44.4	87.7	91.9
Weighted average carbon intensity (Scope 1 and 2)	tCO ₂ e /\$m revenue	47.8	28.7	17.5	119.1	152.2	177.1
Implied Temperature Rise	°Celsius	2.01	1.87	2.11	2.25	2.40	2.40
% total reported and estimated emissions data		95%	98%	81%	87%	84%	100%

Real Estate

The metrics in this section reflect the emissions intensity and portfolio alignment metrics for UK Directs managed by our delegated investment manager, where data is available, as of 31 December 2022. The timeliness with which data is available for underlying assets in the Fund is challenging. There is a significant time lag between emissions data being released, reported at the corporate level and then being quality assured ready for disclosure by our delegated investment manager. As such, in this report we apply tenant emissions data to relevant holdings as of 31 December 2022.

The carbon footprint analysis considers capital employed, owned area, and average portfolio intensity. This method measures the carbon efficiency of a portfolio, defined as the absolute GHG emissions of the portfolio per £m of average capital employed (sum of capital employed divided by the months in the period and includes capital employed of sold assets).

Table 3: Emissions and alignment metrics for Real Estate (directly held assets) (31 December 2022)

Climate metrics	Unit of measurement	31 December 2022
Scope 1 GHG emissions	tCO ₂ e/yr	231
Scope 2 GHG emissions – market based	tCO ₂ e/yr	127
Scope 3 GHG emissions – tenant	tCO ₂ e/yr	7,630
Total GHG emissions (Scope 1, 2 and 3)	tCO ₂ e/yr	7,988
GHG intensity by capital employed	kgCO ₂ e/yr/\$M	0.01
GHG intensity by owned area	kgCO ₂ e/m ² /yr	19.4
Average portfolio energy intensity	kWh/m ² /yr	174.4
1.5 degree energy intensity target	kWh/m ² /yr	106.6
% total reported and estimated emissions data		100%

Flood risk

The UK Environment Agency (EA) provides flood risk ratings to help assess vulnerability to flooding. It categorises flood risk into different levels based on the likelihood of flooding in a specific area. The ratings include ‘low risk’ (areas where flooding is unlikely or very rare); ‘medium risk’ (areas with moderate flood risk, which may experience occasional flooding), and: ‘high risk’ (areas prone to frequent or severe flooding where properties in these areas are at significant risk). As of 31 December 2022, we have assessed the rental value (% of UK directs portfolio annual rental amount) subject to high, medium, and low risk.

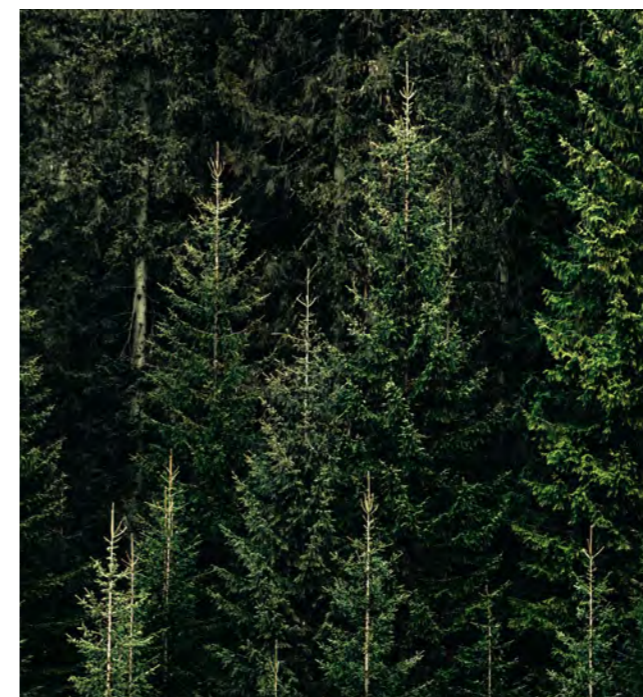


Table 4: Flood risk metrics

Probability of flooding	Number of assets	Rental value flood risk
High	4	6.0%
Medium	6	13.2%
Low	39	80.8%

Our delegated manager has undertaken site-specific flood risk assessments for properties located in flood risk zones 2 and 3 (EA Flood Risk Map for Planning).

The assessment found for high-risk properties in the portfolio, there is an annual probability of 3.3% of flood of occurring impacting the assets. Of the 10 assets located in flood zones 2 and 3, two are protected by the Thames Barrier, while the balance are considered either low or very low risk based on site-specific risk assessments carried out.

Infrastructure

The metrics in this section reflect the emissions intensity and portfolio alignment metrics for Infrastructure, where data is available, as of 31 December 2022.

The timeliness of available data for Infrastructure is challenging. The latest data is from 2022, reflecting the time lag between emissions being released, reported at the corporate level. We are working to identify potential solutions to reduce the lag in reported emissions data. The metrics in the table below also do not currently include infrastructure assets on our client balance sheets due to an absence of data providers for assets.



Table 5: Emissions and alignment metrics for Infrastructure (31 December 2022)

Metrics	Scope	Unit of measurement	31/12/2022	% total reported and estimated emissions data
Total carbon emissions	Scope 1	tCO ₂ e	1,328,590	89%
	Scope 2	tCO ₂ e	41,206	89%
	Scope 3 ¹	tCO ₂ e	300,266	66%
	Scope 1 and 2	tCO ₂ e	1,369,795	89%
	Scope 1, 2 and 3 ¹	tCO ₂ e	1,670,061	66%
Total carbon footprint	Scope 1 and 2	tCO ₂ e/\$m invested	6,729	89%
	Scope 1, 2 and 3	tCO ₂ e/\$m invested	9,512	66%
Weighted average carbon intensity	Scope 1 and 2	tCO ₂ e/\$m revenue	250	89%
	Scope 1, 2 and 3	tCO ₂ e/\$m revenue	1,181	66%

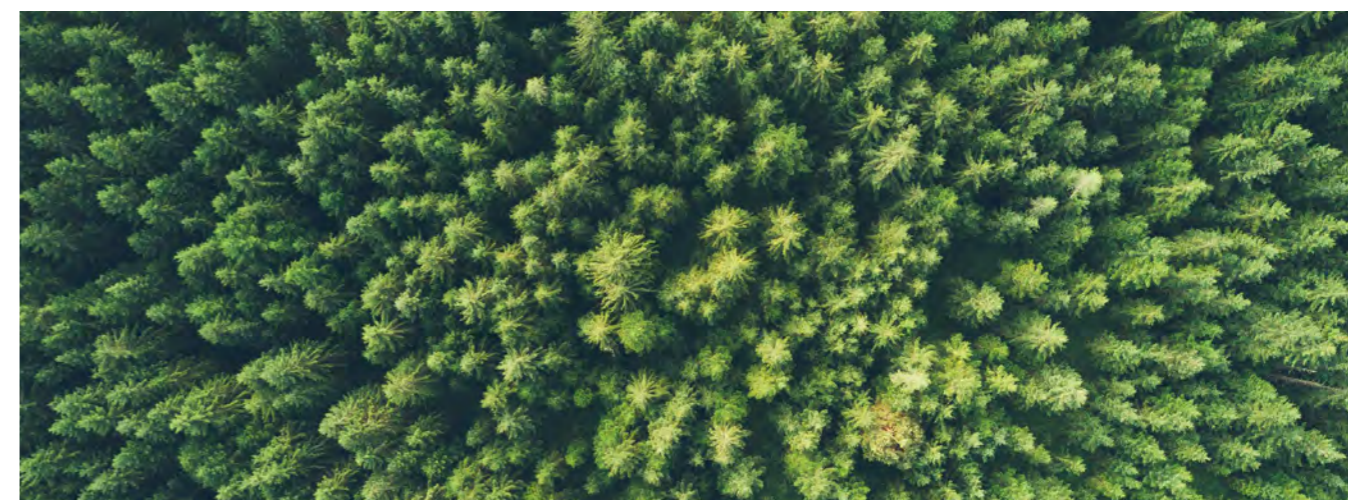
¹ Scope 1, 2 and 3 metrics include Scope 3 when reported and the portfolio coverage figure represents coverage across all scopes.

GLIL Infrastructure

LPPI is the AIFM for GLIL Infrastructure, for which emissions metrics are provided below.

Table 6: Emissions and alignment metrics for GLIL Infrastructure (31 December 2022)

Metrics	Scope	Unit of measurement	31/12/2022	% total reported and estimated emissions data
Total carbon emissions	Scope 1	tCO ₂ e	153,521	98.2%
	Scope 2	tCO ₂ e	27,948	98.2%
	Scope 3	tCO ₂ e	223,982	98.2%
	Scope 1 and 2	tCO ₂ e	181,468	98.2%
	Scope 1, 2 and 3	tCO ₂ e	405,450	98.2%
Total carbon footprint	Scope 1 and 2	tCO ₂ e/\$m invested	68.8	98.2%
	Scope 1, 2 and 3	tCO ₂ e/\$m invested	153.8	98.2%
Weighted average carbon intensity	Scope 1 and 2	tCO ₂ e/\$m revenue	206.0	98.2%
	Scope 1, 2 and 3	tCO ₂ e/\$m revenue	460.3	98.2%



Carbon footprint of our business

Our Net Zero Asset Manager (NZAM) commitment focuses on the financed emissions attributable to our assets under management, but the Net Zero Investment Framework (NZIF), a framework that provides investors with guidance in relation to governance, targets, strategic asset allocation, market engagement and policy advocacy, encourages investors to monitor and set targets for their own operational emissions as a direct contribution to reducing real world emissions.

We recognise that we have our own part to play in the transition to a low-carbon economy which includes understanding how our corporate activities contribute to total carbon emissions. As part of our net zero commitment, we are addressing operational emissions and determining an appropriate decarbonisation strategy for our business to maintain our [Planet Mark](#) accreditation and to ensure we are following an accepted and appropriate measurement approach. Based on our Year 3 submission for the period 1 April 2022 to 31 March 2023, our Planet Mark certification is valid to 30 June 2024. We intend to submit our Year 4 data for the period 1 April 2023 to 31 March 2024 in due course. Planet Mark are a sustainability certification and net zero provider for organisations and the built environment.

We have not set a business target for emissions reduction at this point. We will do so in due course once efforts to collect further data improve our capabilities to capture our baseline and assess the options for improvement.

Table 7 shows the key metrics for LPPI business operations as of 31 March 2023.

Our total emissions figure shows an increase year on year since 2021. This is mainly reflective of the impact of Covid on business operations. The figure of 114.3 tCO₂e is a true reflection of the business's emissions on operations on an annual basis. This is because we have returned to pre-COVID operating and the main increase in emissions is due to air travel following the lifting of COVID related travel restrictions. In addition, we have captured our waste, water and paper usage that has also contributed to the rise in its overall figure.

Table 7: Emissions metrics for our business operations (31 March 2023)

	2023	2022	2021
Energy consumption (kWh)			
Energy use	279,572.8	149,578.0	58,532.8
Greenhouse gas emissions (tCO₂e)			
Total Scope 1 emissions	43.3	6.1	6.1
Total Scope 2 emissions - location based	8.2	24.7	5.9
Total Scope 1 and 2 emissions	51.5	30.9	12.0
Scope 3 emissions from business travel	57.8	13.9	2.7
Scope 3 emissions from waste generated in operations	3.8	-	-
Scope 3 emissions from transmission and distribution losses	0.7	2.2	0.5
Scope 3 emissions from purchased goods and services	0.5	-	-
Total Scope 3 emissions (excluding investments)	62.8	16.1	3.2
Intensity metrics			
Total Scope 1, 2 and 3 emissions (excluding investments)	114.3	46.9	15.2
Total per employee (tCO ₂ e) - location based	1.0	0.4	0.04
Total per employee (tCO ₂ e) - market based	0.9	0.2	-
Total per £m (tCO ₂ e) - location based	4.0	1.8	0.4
Total per £m (tCO ₂ e) - market based	3.7	0.8	-
Total per building m ² - location based	0.01	0.01	-
Total per building m ² - market based	0.01	0.001	-

Targets

We have voluntarily made a public commitment to the goal of aligning our portfolio with net zero emissions by 2050. This involves setting forward targets for progressively increasing the portfolio's alignment with net zero emissions with the aim of achieving this by 2050. Meeting our net zero commitment involves integrating net zero into all four TCFD pillars, but is most obviously part of metrics and targets. Our net zero commitment has board approval and is a priority objective identified in our business plan with associated board level KPIs. Therefore, many of the metrics we monitor are aligned to our net zero commitments.

Our Roadmap to net zero provides further information on our net zero strategy and why we have made a net zero commitment.

The NZAM commitment envisages 100% of assets under management being brought within the scope of net zero target setting over time. Our actual progress will depend on our mandates from clients and partners, our regulatory environment, and the availability of sufficiently robust foundations for target setting. We need corporate disclosures to improve, and tools and methodologies to mature, across the full range of asset classes we manage.

Our net zero commitment focuses on extending the proportion of assets for which it is possible to establish a baseline (current position) and set forward targets that can inform underwriting, portfolio monitoring, and risk management. This focus is guiding the efforts and progress we will be reporting in our annual TCFD disclosure from 2024 onwards.

The IIGCC guidance recommends and provides methodologies for setting two targets at asset class level (engagement and coverage) and two at portfolio level (decarbonisation and investing in climate solutions) where these are compatible with an asset manager's remit and fiduciary arrangements.

We have set three of the four recommended targets for our Global Equities Fund, Fixed Income Fund, and Real Estate Fund. We are considering net zero targets for our remaining funds within our ESG Programme. We have not set a target for increasing investment in climate solutions at this point. We may consider doing so in future pending discussion with clients on their preferences for products which invest in climate change solutions and the asset classes offering suitable scope. Meanwhile, we are already investing in climate-linked solutions, most obviously through our infrastructure funds which include direct investments in renewable energy (wind, solar, and energy from waste) and transition assistive projects including battery storage and district heating.

The targets shared in this report have been evaluated by the IIGCC and have been confirmed as compliant with our NZAM commitment. LPPI's net zero targets are also available on the [Net Zero Asset Managers initiative website](#) and our progress against our targets are reported in the TCFD reports for our authorised funds: the Global Equities Fund, Fixed Income Fund, and Real Estate Fund.



Next steps

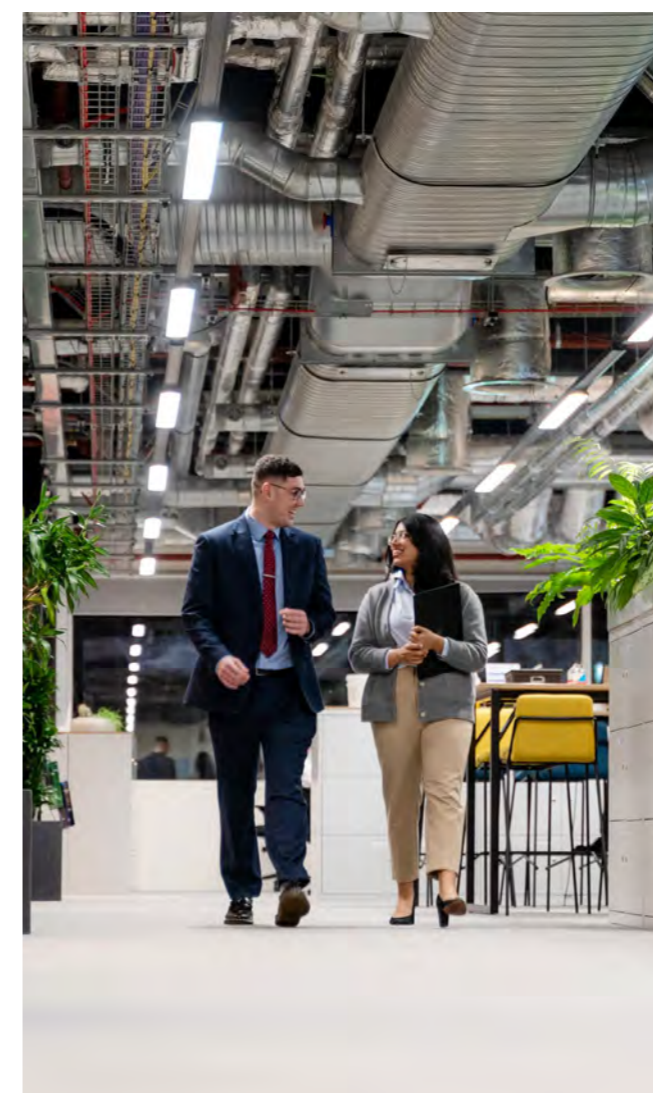
Table 8: LPPI net zero targets

Metric	Portfolio coverage target	Engagement target	Portfolio decarbonisation target
Measure	Percentage of assets under management in material sectors* that are net zero, aligned or aligning with net zero.	Percentage of financed emissions in material sectors* that are net zero, aligned with net zero or under engagement.	Weighted average carbon intensity (WACI) in tonnes of CO ₂ e per \$m revenue. Initially covering Scope 1 and Scope 2 emissions (updated to include Scope 3 emissions when data quality allows).
Purpose	A target for increasing the value of assets already meeting conditions required for being assessed as net zero or taking the actions to move them into this position.	A target for increasing the proportion of total financed emissions from companies already meeting conditions required to be considered aligned with net zero, or under focused engagement on the actions needed.	Monitoring the portfolio's decarbonisation trajectory over time with the goal to align the portfolio emissions intensity with net zero emissions by 2050 or sooner.
Global Equities Fund	32% of AUM in material sectors is considered net zero, aligned or aligning by 2025; 55% by 2030; 100% of AUM in material sectors is considered net zero or aligned to net zero by 2040.	70% of financed emissions in material sectors will either be assessed as already net zero, aligned with a net zero pathway, or subject to direct or collective engagement and stewardship actions by end of 2022; 90% by 2030.	The LPPI Global Equities Fund will achieve a 50.8% reduction in emissions intensity (WACI) by 2030 (December 2029) relative to the fund's own baseline position in December 2019, in line with its 1.5°C carbon budget pathway as determined by MSCI.
Fixed Income Fund	Increase the % AUM in companies within material sectors which are net zero, aligned or aligning by 2025.	70% of financed emissions in material sectors will either be assessed as already net zero, aligned with a net zero pathway, or subject to direct or collective engagement and stewardship actions by 2025; 90% by 2030.	The Fixed Income Fund will maintain a WACI below the pathway implied by its comparator benchmark achieving a 50% reduction in WACI by 2030 from a 2019 baseline.
Real Estate Fund	At least 90% of the direct portfolio will be assessed as net zero, aligned or aligning with a net zero pathway by 2025, with the overall ambition for 100% of assets to be assessed as net zero or aligned by 2040.	90% of the direct portfolio will be assessed as net zero, aligned with a net zero pathway or the subject of direct or collective engagement and stewardship actions by 2024.	The Real Estate Fund direct portfolio is targeted to achieve a reduction in (average) emissions intensity of 50% by 2030 (December 2029) from the fund's own baseline position in December 2022.

* Material sectors have been defined by IIGCC for consistency in the IIGCC Net Zero Implementation Guide. They are the sectors whose activities make the largest contribution to total emissions globally

and which will need to produce the materials, develop the critical technologies, and evolve the lower emitting, more energy efficient processes that achieving a sustainable global economy depends on.

As set out in our disclosures, we have taken steps to identify, assess, and monitor the climate-related risks and opportunities for the assets we manage and for our business. However, we acknowledge that we still have much to do, including:



Strategy

We recognise that climate scenarios are subject to uncertainty and limitations, and that we need to monitor and update our assumptions, methodologies, or change our approach, as new data and evidence become available.

We intend to continue to explore the use of climate scenarios in our decision-making and financial planning processes and to identify vulnerabilities, optimise resource allocation, and ensure long-term resilience. This strategic foresight may not only enhance our ability to adapt to a changing climate but could also position us to capitalise on emerging opportunities from the transition.

Risk management

We are committed to continually strengthening and evolving our risk management activities to ensure they keep pace with business change and client expectations.

Metrics and targets

We will continue to work to improve data coverage and quality, and to establish methodologies for asset classes where they do not exist today. We expect metrics to improve through time.

Appendix

Scenario uncertainty

While the complex models at the heart of global temperature scenarios are becoming more accurate, their outcomes remain uncertain, driven by three factors:

Uncertainty	Description
Portfolio coverage target	This is the measure of the variability of the climate system independent of human activities. This states that while overall temperatures will increase, these increases are not linear, and short-term fluctuations will be driven by internal variability which leads to forecast uncertainty.
Engagement target	Humans possess incomplete knowledge of the effect of the climate system on model outcomes. This means that running the same model with the same assumptions multiple times can still lead to different outcomes. This variability results in "model spread" uncertainty which again leads to forecast uncertainty.
Portfolio decarbonisation target	This is a measure of the uncertainty about future emissions and atmospheric CO ₂ capture. Shared Socioeconomic Pathways (SSPs) describe different scenarios in terms of the evolution of CO ₂ concentration over time; it is impossible to know what climate actions will be taken and what SSP scenario will be closer to the reality, and this leads to additional forecast uncertainty.

PAI net zero alignment

Alignment category	Criteria for assessment
Committed	Ambition: A long term net zero goal
Aligning (material but not high impact)	Meet committed + Targets: Short- and medium-term emissions reduction target (Scope 1, 2 and material Scope 3). Disclosure: Disclosure of Scope 1, 2 and material Scope 3 emissions.
Scenario spread	This is a measure of the uncertainty about future emissions and atmospheric CO ₂ capture. Shared socioeconomic pathways (SSPs) describe different scenarios in terms of the evolution of CO ₂ concentration over time; it is impossible to know what climate actions will be taken and what SSP scenario will be closer to the reality, and this leads to additional forecast uncertainty.
Aligning (high impact)	Meet committed + Targets: Short- and medium-term emissions reduction target (Scope 1, 2 and material Scope 3). Disclosure: Disclosure of Scope 1, 2 and material Scope 3 emissions. Decarbonisation strategy ¹ : A quantified plan setting out the measures that will be deployed to deliver GHG targets, proportions of revenues that are green and where relevant increases in green revenues.
Aligned (Material but not High Impact)	Meet aligning + Emissions performance ² : Current emissions intensity performance (Scope 1, 2 and material Scope 3) relative to targets.
Aligned (High Impact)	Meet aligning + Emissions performance ² : Current emissions intensity performance (Scope 1, 2 and material Scope 3) relative to targets. Capital allocation alignment: Clear demonstration that the capital expenditures of the company are consistent with achieving net zero emissions by 2050.
Net zero	Achieving the emissions intensity required by the sector and regional pathway for 2050. Ongoing investment plan or business model will maintain net zero performance.

¹ Will be disclosed from June 2025.

² <https://www.parisalignedassetowners.org/net-zero-investment-framework/>

Emissions metrics methodology

Our emissions metrics have been calculated in accordance with the Partnership for Carbon Accounting Financials (PCAF) guidance. PCAF published the Global GHG Accounting and Reporting Standard for the Financial Industry (“the PCAF Standard”). However, the PCAF Standard does not address all asset classes and has several methodological issues still to be explored.

Further, the PCAF Standard was developed primarily for use by banks and, therefore, has not yet fully addressed the asset management and portfolio context. As such, we have made several methodological decisions that are not included in the PCAF Standard, which are provided below. Table 9 highlights key methodological choices.

Table 9: GHG emissions from assets under management - methodological highlights

Emissions included	Scopes 1, 2, 3
Internal variability	<ol style="list-style-type: none"> 1. Listed Equities 2. Fixed Income (Corporates) 3. Fixed Income (Sovereigns) 4. Direct Real Estate 5. Infrastructure 6. Credit
Model spread	<ol style="list-style-type: none"> 1. Private Equity 2. Securitised and Structured Products 3. Commodities 4. Alternatives other than Real Estate 5. Derivatives not linked to corporate issuers
Data sources	<ol style="list-style-type: none"> 6. MSCI 7. Company/ Manager reported data
Standards referenced	PCAF (with adjustments to reflect issues not yet fully contemplated by PCAF Standard)



Carbon emissions metrics explained

We use the following metrics to measure the collective carbon impact of the Fund’s holdings, calculated according to TCFD standards, which in turn are based on the internationally accepted GHG Protocol. Emissions are based on the proportion of the company’s revenue represented in the portfolio. Issuer-level Scope 1 and Scope 2 emissions data were obtained from MSCI. MSCI utilises reported data from companies where emissions are disclosed. Where companies do not disclose their emissions, MSCI applies proprietary methods to estimate emissions.

Because derivatives and short positions are not addressed by the PCAF Standard, we have included metrics that best approximate the net exposure to each corporate issuer obtained through derivatives. This methodological choice has a minimal impact on absolute emissions and carbon footprint estimates given that most of our assets under management is held in long-only portfolios with short positions and derivatives not being a significant component of the investment strategy. For individual portfolios with more significant use of derivatives or short positions, it may be appropriate to report long and short positions separately.

Additional metrics focus specifically on the position of investee companies within the internally managed large cap mandate within our Global Equities and whether they have planning and targets in place for emissions reduction. The metrics assist our monitoring and engagement planning. Over **60%** of the targets set are aligned with Science Based Targets Initiative (SBTI), and **53%** of the targets are in line with SBTI’s 1.5°C Business Ambition Initiative.



Metric	What it tells us	How we use it	Source
Scope 1 emissions	Measurement of direct GHG emissions from operations that are owned or controlled by a company. Typically relates to the combustion of fossil fuels on-site and in direct control of the company.	Emissions metrics at asset, portfolio, and firm level.	Collated by MSCI from company-reported data and MSCI activity-based estimates.
Scope 2 emissions	Measurement of indirect emissions of a company associated with the generation of purchased electricity, steam, heat, and cooling. It indicates a company’s energy usage and can be helpful in highlighting energy intensity and efficiency.	Emissions metrics at asset, portfolio, and firm level.	Collated by MSCI from company-reported data and MSCI activity-based estimates.
Scope 3 emissions	Measurement of indirect emissions from a company’s upstream and downstream value chain. Scope 3 effectively represents the emissions from the network within which a company operates. It is, therefore, useful in understanding wider emissions exposure and determining spheres of influence.	Emissions metrics at asset, portfolio, and firm level.	Collated by MSCI from company-reported data and MSCI activity-based estimates.
Total carbon emissions	The total emissions of the portfolio represent the absolute GHG emissions from assets held, allocated on an ownership basis. This means a portfolio holding 1% of a company’s stock would be attributed 1% of the company’s emissions.	Portfolio and firm level.	Sourced from MSCI reported and estimated data.
Carbon footprint	The carbon footprint (or ‘financed emissions’) of the portfolio represents the aggregated GHG emissions per million £/\$ invested and allows for comparisons of the carbon intensity of different portfolios.	Portfolio and firm level.	Sourced from MSCI reported and estimated data.
Weighted average Carbon intensity (WACI)	The WACI of the portfolio represents the aggregated carbon intensities of the companies in a portfolio (per million £/\$ revenue), scaled by the size of the holding. The WACI metric therefore helps measure a portfolio’s exposure to high carbon intensity companies.	Portfolio and firm level.	Sourced from MSCI reported and estimated data.
Implied temperature rise	A fund’s implied temperature rise measures, in aggregate, a fund’s temperature alignment (in °C) to keeping the world’s temperature rise to 2°C by 2100. Each company/issuer (invested into by the fund) is assessed for their potential emissions versus a budget allocated by sector and market share. This difference results in an estimated temperature which is then aggregated on a fund level.	Portfolio and firm level.	Sourced from MSCI reported and estimated data.
Portfolio coverage	This metric provides a guide to the level of data availability in all emissions metrics in the portfolio.	Portfolio and firm level.	Sourced from MSCI reported and estimated data.

Limitations

Although we understand how climate change is having an influence now and will do so into the medium and longer term, like our peers and the market in general our practice standards for measuring and forecasting are still developing and nascent. We face practical challenges with the consistency and coverage of data as a basis for reliable forms of measurement which can bring the type, scope, scale, and impact of exposures into clearer focus. Our strategy is focused on using the data that is currently available to gain a better understanding of current exposure and support thinking on how it will change going forward.

During the period, LPPI engaged third party data provider, MSCI ESG, for the provision of climate-related data to better measure, monitor and manage climate-related risks and opportunities. We are working to gather more data and to progressively embed new practices into our core processes, with ambition to evolve and improve our capabilities as we go forward.

Due to data challenges which include both consistency and coverage for the full range of asset classes we manage, our metrics to date have focused on public market assets and specifically our Global Equities, Fixed Income and Real Estate which represent 60% of our assets under management (December 2023).

We recognise the need to grow our knowledge, skills, and data, and to evolve our approach. This will include collaborating with our peers and supporting the development of consistent frameworks and tools capable of assisting investors to navigate the way ahead.

We continue to develop data and insights on the quantum and makeup of existing investments in “green” and “brown” sectors, initially focusing on our listed equity, private equity, and infrastructure portfolios (where green denotes renewable energy and transition supporting activities and brown denotes fossil fuel-based activities including extraction/transportation, energy generation and utilities). Going forward our process will be shaped by the approach to identifying transition aligned activities outlined by the EU Green Taxonomy.

We regularly review data on the sustainability characteristics of our direct real estate portfolio which include Energy Performance Certification (EPC) ratings and flood risk ratings. We see long-term value opportunities in real estate investments where our investment manager is including green lease clauses within new leases to increase the number of properties climate-related data is reported upon and is executing on a long-term work plan to ensure the portfolio meets net zero commitments and Minimum Energy Efficiency Standards (MEES) as set by the UK Government.

Data coverage and quality

Accurate computation of climate-related metrics in investment portfolios requires high quality security-level data including GHG emissions for underlying investee companies. Many companies are measuring and publicly reporting their GHG emissions, which facilitates the type of high-quality data that investors need to effectively calculate climate-related portfolio metrics. However, many companies have not yet begun their emissions reporting journey. Recognising that deferring measurement and reporting until 100% reported data is available would impede the progress we could make in the near-term in providing transparency to stakeholders, estimates were used to fill data gaps, when necessary. Estimated data reduces the reliability of the metrics since estimated emissions may not accurately reflect the actual emissions of any given company.

Lagged data

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



Backward-looking

While we believe that absolute emissions and carbon footprint are an appropriate starting point for reporting of climate-related and portfolio alignment metrics, it is worth noting that these metrics are backward-looking in that they only consider past emissions of investees. They do not provide an assessment of how those investees may evolve their businesses to reduce their emissions in the future based on transition plans, emissions reduction targets, and goals. Therefore, decisions using these metrics alone may lead to a greater focus on shorter-term carbon reduction rather than a longer-term allocation to companies where the environmental position is expected to improve over time. Other metrics, such as implied temperature rise (ITR) and portfolio coverage attempt to incorporate a forward looking component but have challenges and issues of their own in the case of ITR.

Sensitivity to market volatility

The PCAF Standard has been very helpful in setting a foundation for reporting absolute emissions and by default, carbon footprint, which measures absolute emissions per unit of assets under management. However, as a relatively new and incomplete standard, the metrics defined by PCAF have limitations that have yet to be addressed. One of those limitations is the sensitivity of absolute emissions and carbon footprint to fluctuations in asset values – particularly, though not exclusively, due to changes in enterprise value including cash from one period to the next. In other words, as financial institutions use the metrics defined by PCAF to demonstrate progress towards decarbonisation of their portfolios, market volatility can introduce noise that reduces comparability from one year to the next. Other factors that drive changes in absolute emissions are changes to emissions of the underlying investee companies, and changes to asset allocation. Sensitivity to market volatility can obscure which of these factors is driving the changes in the metric year-on-year.

TCFD compliance statement and summary

The FCA and the Task Force on Climate Disclosures (TCFD) outlined 11 recommendations for organisations to include in their climate reporting. The table below directs to the relevant section where the 11 TCFD recommendations are covered in this report. Whilst we have complied with the 11 recommendations, we continue to work towards expanding the scope of our metrics and targets, developing the methodology of our climate scenario analysis and enhancing our disclosure in this area. In addition to the TCFD Final Report, we have also considered the TCFD Annex (issued October 2021).

The disclosures in this report comply with the requirements set out in 'ESG 2.2 entity report' and other relevant sections of the FCA ESG Sourcebook. They are consistent with the TCFD Recommendations and Recommended Disclosures. Reasonable steps have been taken to ensure that disclosures to the extent they are relevant and/or possible, also reflect sections C and D of the TCFD Annex titled 'Guidance for All Sectors' and 'Asset Managers' respectively. We view climate-related disclosures as evolutionary and endeavour to continue to improve on our disclosures.

This statement is made pursuant to FCA's ESG sourcebook (section 2.2.7) requiring a firm's TCFD entity report to include a compliance statement, signed by a member of senior management of the firm.

29 June 2024



Chris Rule
Chief Executive Officer



TCFD pillar	TCFD recommended disclosure	Section the disclosures are included in
Governance Disclose the organisation's governance around climate-related risks and opportunities.	a) Describe the board's oversight of climate-related risks and opportunities.	a) Oversight of climate-related risks and opportunities
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Management's role
Strategy Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.	a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	a) Impact of climate-related risks and opportunities
	b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	b) Scenario analysis
	c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Resilience to climate-related risks
Risk management Disclose how the organisation identifies, assesses, and manages climate-related risks.	a) Describe the organisation's processes for identifying and assessing climate-related risks.	a) Managing climate-related risks
	b) Describe the organisation's processes for managing climate-related risks.	b) Process for managing climate-related risks
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	c) Integration of climate-related risks into LPPI's overall risk management
Metrics and targets Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	a) Carbon footprint of our investments and operations
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and the related risks.	b) LPPI operational metrics
	c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	c) Targets

Glossary

AUM

Assets under management.

Baselining

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

Benchmark-relative approach

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

CDP

CDP (previously the Carbon Disclosure Project). [Visit the website.](#)

CRREM

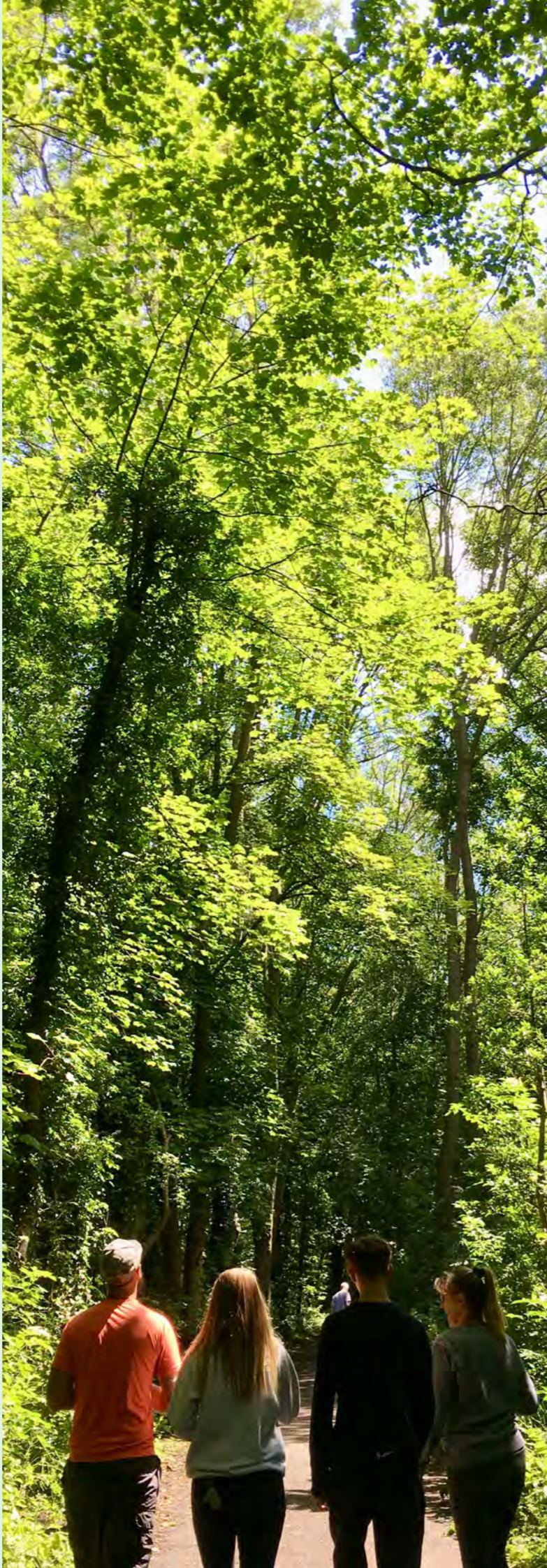
Carbon Risk Real Estate Monitor.

EVIC

Enterprise Value including Cash.

FCA

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



Financed emissions

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

GHG

Greenhouse gas emissions.

IIGCC

Institutional Investors Group on Climate Change.

Investment universe

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

IPCC

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

ITR

Implied temperature rise.

IPV

Investment pooling vehicle.

Location-based emissions

Location-based emissions are emissions based on the average emission factor of the local grid where energy consumption occurs and reflects the GHG intensity of the electricity physically received via the local grid.

Market-based emissions

Market-based emissions are emissions are calculated using emission factors from specific contractual instruments, such as power purchase agreements (PPAs) or energy attribute certificates (EACs). Market-based emissions reflect the emissions associated with the electricity purchased based on these contracts.

MSCI

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

MSCI ACWI

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

NACE

A statistical classification in use within the European Community. NZAM Net Zero Asset Manager Commitment (see pages XX-XX). NZIF Net Zero Investment Framework.

Net zero

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

NZAM

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

NGFS

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

Paris Agreement

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

PCAF

The Partnerships for Carbon Accounting Financials.

Portfolio self-decarbonisation

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

PCAF

Portfolio self-decarbonisation.

SBTi

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

Scope 1, 2 and 3 emissions

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

- Scope 1 emissions are GHGs released directly from owned or controlled sources of the company.
- Scope 2 emissions are indirect GHGs released from the energy purchased by the company (generation of electricity, heat or steam purchased).
- Scope 3 emissions are indirect GHGs released by the value chain of the company, excluding the Scope 1 and 2 emissions, for both upstream and downstream emissions.

Stewardship

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

Total carbon emissions

The sum of all the emissions in the portfolio based on the investor's ownership share. Calculated as follows:

$$\sum_n^i \left(\frac{\text{Current value of investment}_i}{\text{Issuer's market capitalization}_i} \times \text{Issuer's Scope 1 and Scope 2 GHG emissions}_i \right)$$

TPI

Transition Pathway Initiative. [Visit the website.](#)

Universal global benchmark

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

Weighted average carbon intensity (WACI)

Weighted average carbon intensity is the measure of a portfolio's exposure to carbon-intensive companies, expressed as tCO₂e/\$m company revenue. Calculated as follows:

$$\sum_n^i \left(\frac{\text{Current value of investment}_i}{\text{Current portfolio value}} \times \frac{\text{Issuer's Scope 1 and Scope 2 GHG emissions}_i}{\text{Issuer's \$M revenue}_i} \right)$$

Key risks identified by LPPI are detailed in the table below:

Climate risk	Type	Description
Physical	Acute	Increased severity of extreme weather events such as droughts, cyclones, wildfires, or floods. At the direct company level, this can potentially translate to lowered production and reduced revenues, increased insurance premiums and, increased capital costs due to need to replace damaged/unsuitable assets, amongst others.
	Chronic	Long-term, secular changing weather patterns, rising mean temperature and sea levels and biodiversity loss can result in. For corporates this can result in increased capital costs, higher energy costs and asset write-offs/ impairments, amongst other impacts, for corporates.
Transition	Policy and legal	This refers to the potential risk businesses face because of governments responding to climate change by implementing regulations such as carbon pricing, capping supply and use of resource, enhanced emissions reporting obligations, and the subsequent increased exposure to environmental litigation. At the company level this could result in lower returns on capital (via reduced customer demand and/or higher costs) and potential asset write-offs.
	Technology	Substitution of existing products/services with lower emissions alternatives, and/or costs associated with transitioning to these alternatives. This could result in lower customer demand, greater operating costs and higher investment requirements, all of which could drive lower returns on capital.
	Market	This refers to how consumer's behaviour could change (for instance substituting environmentally damaging products for more climate-friendly alternatives), which once again could lower corporate returns through reduced demand and higher production costs.
	Reputational	Shifts in customer preferences, sector stigma, negative stakeholder feedback, all of which could damage a company's reputation, thus negatively impacting demand and capital availability, and potentially lead to higher costs and lower profitability.

For more information about LPPI, visit our website or contact us to discuss your specific requirements in more detail.

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Authorised and regulated by the Financial Conduct Authority (Reference number: 724653)

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