Pension Protection Fund

# Climate Change

## Report 2023/24

**Best UK Pension Fund**
IPE Awards, December 2023

About the PPF

# Protecting people's futures

Our purpose is to protect the future of millions of people throughout the UK who belong to defined benefit (DB) pension schemes. Should a scheme fail, we're ready to help.

We do this by charging pension schemes a levy, investing levies and other capital sustainably, then paying the members of schemes we protect as required.

Our work has a real impact on people's lives. So whatever we do, we strive to do it well, with integrity and our members' futures in mind.

## The PPF in numbers

as at 31 March 2024

**8.9 million**
DB scheme members protected

**5,000+**
DB pension scheme protected

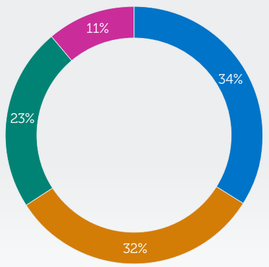
**292,605**
PPF members in payment or deferred

**£32 billion+**
of assets under management

## How we are funded

When an employer becomes insolvent and its pension scheme cannot afford to pay the pensions promised, we compensate scheme members for the pensions they have lost. We raise the money we need to pay PPF benefits and the meet the cost of running the PPF in four ways:

### Split of funding sources




- Assets from pension schemes transferred to us
- The return we make on our investments
- The levy we charge on eligible pension schemes
- Recovered assets we secure from insolvent employers

## The PPF portfolios are managed with an integrated approach to funding and investment:

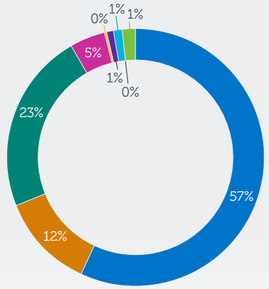
- Our funding framework separates the funding requirements for current members from those of future claims. Our investment framework splits our assets into two portfolios to align with these separate funding requirements.
- We seek to deliver investment performance consistent with targets set by the PPF Board within our strategic risk budget and implement the changes to our portfolio to align it to our funding objective of maintaining our financial resilience.

## How we are invested

We hold over £32 billion in our Matching and Growth investment portfolios (as at 31 March 2024). These are managed by our Investment team, using both internal and external portfolio managers.

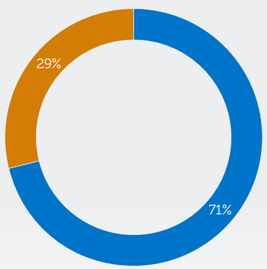
We invest across both public and private markets in the UK and globally, seeking to capture capital growth and invest in assets that behave in the same way as our liabilities to meet pension commitments.

### Split of geographical breakdown




- United Kingdom
- Europe ex UK
- North America
- Asia Pacific
- Asia Emerging
- Middle East & Africa
- Latin America
- Europe Emerging
- Other

### Asset allocation – PPF Matching Portfolio

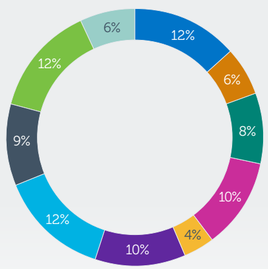



- Liability Driven Investment (LDI)*
- Hedging Assets with Illiquid characteristics (HAIL)**

* Includes Government Bonds (UK Gilts), Derivatives and Cash.

** HAIL assets include UK Public Credit and Private Credit.

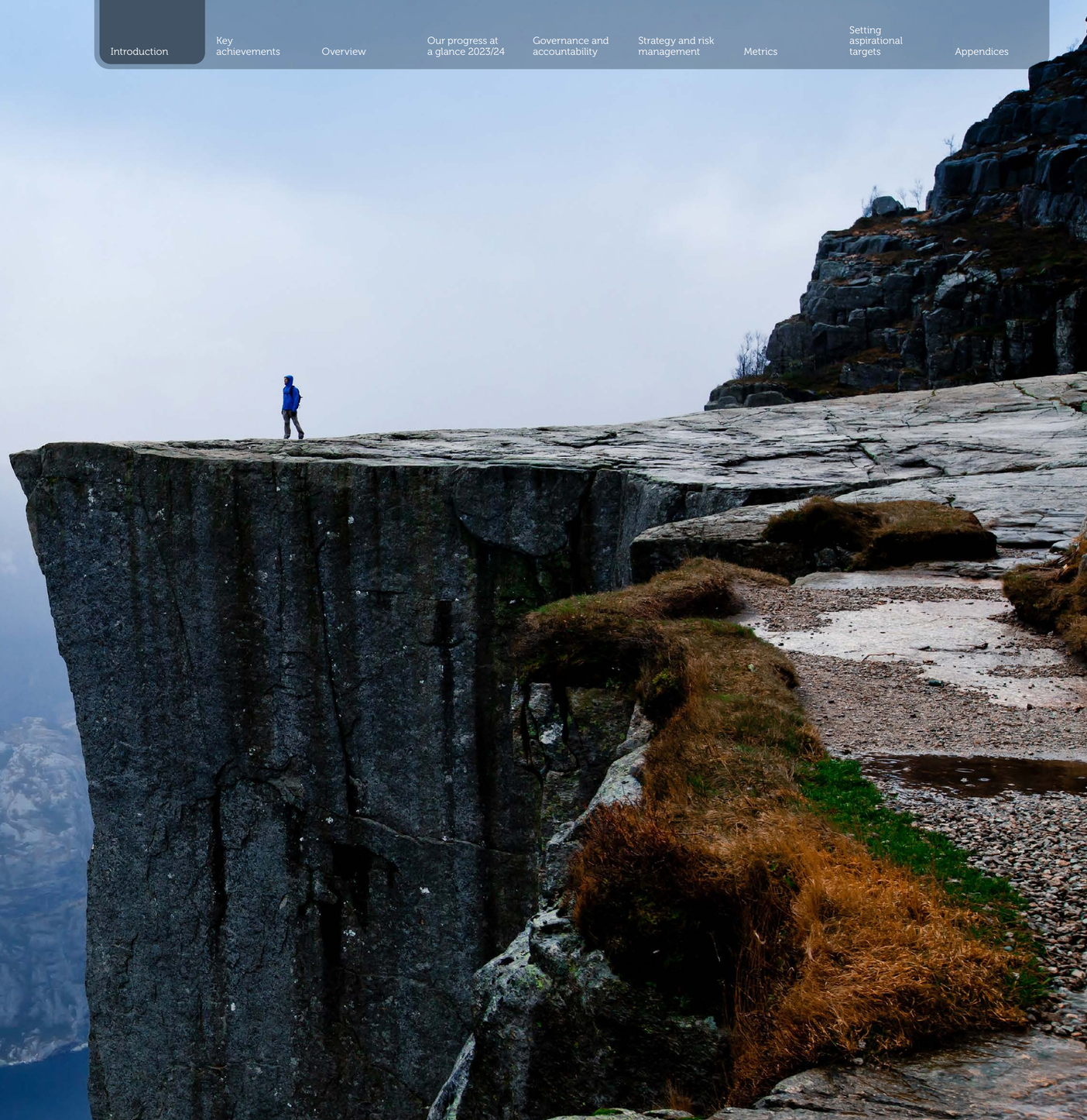
### Asset allocation – PPF Growth Portfolio




- Equity
- Global Credit
- Emerging Market Debt
- Absolute Return
- Cash
- Alternative Credit
- Private Equity
- Infrastructure
- Real Estate
- Farmland & Forestry

# Contents





# Introduction from **our Chair**

**Kate Jones**
Chair
Pension Protection Fund

## Sustainability is at the heart of what we do, how we invest and what we stand for. A commitment to climate and sustainability is essential to fulfilling our role in protecting people's futures for decades to come.

The pensions and wider investment industries play a key part in providing capital where it is needed most to accelerate the transition to a low-carbon economy. We recognise our influence in this, and responsible investment is a core component of our Sustainability Strategy. We aim to lead by example through identifying global best practice, engaging with our portfolio companies to help them operate in more sustainable ways, reducing our own organisation's carbon emissions, and sharing what we are doing to help others.

Since we outlined our Sustainability Strategy in 2023, we have taken steps to strengthen the foundations of our ambitions and move forward against our sustainability goals. We recognise that our words and actions must be backed by facts, so data collection has been key.

While the task is relatively straightforward when it comes to public markets, getting the right information from private markets has always been more complex. We recognise this challenge and have been engaging with our private managers and portfolio companies to get the information we need to ensure we meet the sustainability goals we set out last year and demonstrate excellence in responsible investment. I'm delighted that the PPF was awarded Best UK Pension Fund at the 2023 IPE Awards, where our use of extensive scenario testing was noted.

We continue to evolve and refine our approach to sustainability, from how we manage our operations and how we talk about sustainability, through to how we invest and collect data.

We have implemented measures and policies to ensure lines of accountability and responsibility are clearly defined to oversee our organisation on our sustainability journey.

We also recognise the importance of close collaboration and engagement with our investment managers and portfolio companies around the world. We are determined to continue to work with our portfolio companies, managers, suppliers and employees to support the global economy in its transition to Net Zero.

Adaptive reuse architecture: Lisbon's Oriente Green campus, an asset in our Real Estate portfolio, has adapted a shopping mall into an office campus

"Since I joined the PPF in April, I have been impressed with how sustainability is embedded across the organisation, from our external engagements with asset managers and portfolio companies, to the equally important work we do internally establishing governance structures and a clear line of leadership for developing and delivering on our sustainability priorities. I look forward to what the year ahead will bring and how we will continue our progress to a more sustainable and carbon-free future."

**Michelle Ostermann**
Chief Executive

# Key achievements

Addressing the risks and opportunities arising from climate change is key to our responsible investment and organisational goals.

Applying a sustainability lens has enhanced our decision-making by providing us with an additional way of considering risks and benefits that we may face, whether in relation to our investment portfolio or within our own operations.

## Governance and accountability

Created a clear commitment to and oversight of action to reduce climate-related risks on behalf of our members

- Established a clear line of leadership and accountability for developing and delivering on PPF sustainability priorities. **See pages 07–08**
- Gave oversight to a new Risk & Strategy working group to manage climate-related risks at an enterprise level. **See page 09**
- Approved updated voting guidelines for the 2024 AGM season. **See page 08, Appendix E**
- Developed a new formal escalation strategy for our portfolio companies to aid engagement efforts. **See page 15**

## Strategy and risk management

Acted to manage exposure to climate risks across our portfolios and our business to safeguard our members' future financial wellbeing

- Continued to reference material ESG and climate-related risks as a key risk within our Statement of Investment Principles. **See page 07**
- Used our Long-Term Risk Model (LTRM) to run four climate scenarios to assess the potential impact of different climate change outcomes on projected claims and projected PPF reserves. **See page 10**
- Developed a Climate Change Adaptation Strategy and conducted risk identification exercises across all our Sustainability Strategy working groups, reflected in risk & control self-assessments (RCSAs). **See pages 09 and 11**
- Surveyed our largest bank counterparties for the first time to assess their ESG considerations and associated risks. **See page 15**

## Engagement and collaboration

Continued to support and encourage industry best practice to protect the long-term interests of our members

- Allocated companies on our Climate Watchlist to our external managers to ensure high-quality engagement and reporting on progress. **See page 16**
- Supported CDP's annual campaign to encourage major companies to start disclosing their emissions. Joined the Net Zero Engagement Initiative (NZEI) to extend the reach of engagement beyond Climate Action 100+ companies. **See page 15**
- Co-filed a shareholder resolution at Shell Plc, one of our Climate Watchlist Companies, to urge Shell to reduce emissions this decade. **See page 16**
- Participated in a commissioned academic study to analyse alignment of managers' proxy voting patterns on climate resolutions at European oil and gas companies. **See page 07**

## Disclosure

Ensured we share as deep an insight as possible of our exposure to climate change within our investments and our operations to provide transparency for our stakeholders

- Continued progress across all asset classes on reporting and assessing climate risk and alignment for the whole portfolio. **See page 14**
- Continued to support the eFront® ESG Data Service project to collect Private Markets ESG data on greenhouse gas emissions, etc. **See page 18**
- Rolled out a new taxonomy framework to analyse the Net Zero transition progress among Infrastructure assets. **See page 34**
- Developed our own template to collect emissions data for Private Credit and Real Estate. **See page 33**

# Overview: continuing to improve our understanding of climate risks

There is no doubt that climate change poses a systemic threat to financial markets and economic stability. We take the matter very seriously and want to make sure our investments are protected against adverse impacts of severe environmental changes and that we act in our members' best interest.

Over the past 12 months we have continued to implement our Responsible Investment approach, as a key pillar of our Sustainability Strategy. We have prioritised finding ways to better understand and respond to climate-related risks and opportunities for our investments, and working to ensure the managers and companies we invest with are fundamentally aligned with our long-term goals and sustainability ambitions.

We continue to improve our understanding of climate risks to help us respond to the challenges these present. This means working closely with our managers and companies to obtain core ESG metrics and emissions data, including a more focused push on private markets' disclosure through BlackRock's eFront® ESG Data Service project.

We want to understand how risks identified may impact our portfolios. We use a variety of measurement and scenario analysis tools from our data providers. We continue to take a bottom-up perspective when assessing our portfolio for climate-related risks, as we believe these will play out in different ways depending on the asset class.

We also look ahead to see how opportunities in a Net Zero world might benefit our portfolio and we see particular value in providing capital to companies critical to transitioning to a low-carbon economy. This year, we have developed a detailed 'bottom-up' project within our private markets portfolios to build a framework for identifying and classifying assets as 'sustainable' or 'transitioning'.

We want to be at the forefront of these opportunities and play an active role in shaping better real-world outcomes for our members and society.

**Barry Kenneth**
Chief Investment Officer

## Engaging across the value chain

We believe that engaging with companies can drive good practice on climate-related issues. Our Responsible Investment strategy is based on engaging with both our managers and our underlying issuers to encourage progress wherever possible.

Through our stewardship services provider, EOS, we prioritise climate risk and opportunity management in engagements with issuers, which informs our voting recommendations at company AGMs. EOS consulted on its three-year engagement plan during the year to seek input on engagement priorities for the 2024 to 2026 period. The engagements will continue to focus on ensuring company strategies and actions are aligned to the goals of the Paris Agreement to keep global temperatures rise well below 2°C and demonstrate that business models are resilient and can adapt to future climate change.

To share our expectations with companies, we have also updated our voting guidelines. These reflect and integrate various climate measures into our wider voting strategy. For example, we have specified situations where we will consider voting against management on issues including climate change.

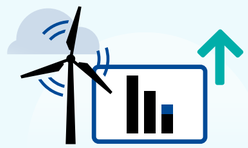
Throughout the year, our Risk & Strategy sustainability working group conducted workshops to identify new and existing sustainability risks in areas of our business including responsible investment. We have used the findings to help us articulate our risk appetite and understand our risk exposure to support our decision-making. This is a clear example of how our wider Sustainability Strategy is providing more of a systems-led approach to how we consider climate risks as a business.

**Claire Curtin**
Head of ESG and Sustainability

# Our progress at a glance

## Achieving more high-quality disclosure in all asset classes

**74%**
of Fund's total net asset value covered by carbon footprint metrics
2022/23: 55%



**97%**
of our Credit portfolio and 96% of UK Credit portfolio now covered by carbon data
2022/23: 94% & 92%

**60%**
of portfolio companies in the eFront® ESG Data Service project for Private Markets covered by carbon data
2022/23 pilot: 37%

## Climate Watchlist Companies Progress

**90%**
of portfolio companies on our Climate Watchlist reported to CDP in 2023
2022/23: 84%

**33%**
of our Climate Watchlist companies saw engagement progress in 2023

**67%**
of Climate Watchlist companies maintained or improved their TPI Management Quality Score

## Portfolio Alignment and Transition analysis

**67%**
of Fund considered 'Net Zero, Aligned, Aligning or Committed to Align' with the Paris Agreement
Dec 2020 baseline: 59%

**100%**
of our Infrastructure managers responded to our new Transition & Sustainable Asset Questionnaire

**78%**
of our Infrastructure assets have been identified as sustainable or transition opportunities according to our new Transition & Sustainable Asset framework

## Being accountable for our own organisational emissions

**100%**
of electricity supply for our offices backed by renewable UK sources
Since October 2019

**53%**
reduction in our offices' Scope 2 location-based emissions
Since 2019/20 baseline

**100%**
renewable electricity supply secured for our data centres
April 2023 to March 2026

# Governance and accountability

Climate change is a major global concern with the potential to affect economies, businesses, and people everywhere. We have established robust governance throughout the PPF to manage and oversee sustainability and climate-related risks, both within our investment portfolios and across our wider operations.

Our governance structure is also intended to drive constant improvement – in our understanding of sustainability and climate risks, how we can mitigate them on behalf of our members and stakeholders, and how we reduce our own organisational impact.

## Our governance-related activities through the year

| Function and responsibilities | Climate-related activity in 2023/24 | |
|---|---|---|
| **PPF Board**<br>Highest governing body with oversight for sustainability and responsible investment (including climate-related) | • Approved the PPF Sustainability Strategy in June 2023, including a Net Zero target for our operations<br>• Approved PPF business plan objectives relating to sustainability | • PPF Board and relevant Board sub-committees provided a steer and oversight for delivering the strategy (each of the four sustainability goals are mapped to at least one sub-committee)<br>• Annual review of responsible investment (RI) progress and activities |
| **Investment Committee**<br>Owns the Investment Framework for managing PPF's assets, of which RI is a key part. Responsible for developing and maintaining the PPF's RI and stewardship principles and policies (including climate-related) | • Annual review of Minimum Standards, Climate Change and Stewardship policies<br>• Quarterly review of ESG reporting on RI and climate-related activities, metrics and progress used in TCFD and UK Stewardship Code reporting | • Approved updated voting guidelines for the 2024 AGM season<br>• Approved a new formal escalation strategy for portfolio companies when engagement efforts are not delivering |
| **Sustainability Strategy Group and internal working groups**<br>To provide strategic input and steer and define what success looks like as we implement the PPF Sustainability Strategy | • Clear line of leadership and accountability established for developing and delivering on PPF sustainability priorities<br>• Internal working groups ensured sustainability is embedded across PPF's decision-making. Monthly updates given to Executive Committee (ExCo) on PPF Sustainability Strategy implementation and progress on financial-year objectives<br>• New Risk & Strategy working group given oversight to manage climate-related risks at an enterprise level, including overall PPF risk management | • Risk identification sessions conducted across working groups and outputs fed into departmental risk & control self-assessments (RCSAs) and a new Sustainability RCSA<br>• PPF Climate Change Adaptation Strategy and Climate Change Risk Assessment approved by ExCo in March 2024 |
| **Investment Team**<br>Led by the CIO, responsible for ensuring adherence to the RI framework, stewardship principles and associated policies across all asset classes whether internally or externally managed | • Material ESG and climate-related risks continued to be referenced as a key risk within our Statement of Investment Principles<br>• Monthly updates provided as part of Investment team reporting to the Asset & Liability Committee | • Discussed specific investment opportunities with the ESG & Sustainability team, and declined a number of deals due to specific ESG concerns. Updates given at Investment team meetings on ESG issues, including company updates relevant to the Climate Watchlist<br>• Desk heads session held on ESG and climate priorities for investments, plus ongoing sessions held with individual desks to define 'sustainable' and 'transition' assets |
| **ESG & Sustainability Team**<br>Part of the Investment Team, helping to oversee implementation of the RI framework, monitor investments for ESG risks and opportunities, engage with portfolio managers, external managers and our stewardship services provider | • Developed a formal escalation strategy for company engagement during the year Sought input from relevant internal portfolio managers in relation to co-filing a shareholder resolution at Shell plc<br>• Chaired ESG in Investments sustainability working group and provided oversight and coordination of other working groups, collating monthly ExCo updates and business plan KPI updates | • Produced monthly portfolio ESG reports for internal portfolio managers, including key ESG and climate metrics, such as the Implied Temperature Rise (ITR) of the portfolio<br>• Engaged in a PPF-wide Lunch & Learn session on the new PPF Sustainability Strategy, and specific training for Finance and Scheme & Members Services teams |
| **Asset Managers and Stewardship Services Provider[1]**<br>Follow the PPF's RI framework and stewardship policy, undertake ESG integration and issuer engagement then report transparently and accordingly | **Asset Managers**<br>• Allocated companies on our Climate Watchlist to our external managers to ensure high-quality engagement and reporting on progress. Collaborated with one manager to undertake joint engagement with issuers on climate-related issues<br>• Continued to encourage our Private Markets managers to provide ESG data to eFront® ESG Data Service project<br>• Obtained permission to disclose proxy voting instructions for managers of pooled funds<br>• Participated in a commissioned academic study to analyse alignment of managers' proxy voting patterns on climate resolutions at European oil and gas companies | **Stewardship Services Provider**<br>• Engaged with EOS on policy updates, public consultation responses and setting future strategic engagement priorities<br>• Added a further company to EOS's engagement focus list to support our Climate Watchlist of priority engagement targets<br>• Retained the ability to review individual meetings for proxy voting, submit vote instructions and amend votes as we see fit |

1 EOS at Federated Hermes (EOS).

# GOVERNANCE AND ACCOUNTABILITY CONTINUED

## Climate and sustainability training

Net Zero training was held for the PPF Board in April 2023 at a Board Strategy away-day. This included an overview of the Greenhouse Gas (GHG) Protocol, an explanation of the different scopes of GHG emissions (i.e. Scope 1, 2 and 3), how public-sector bodies can measure indirect Scope 3 emissions, and which categories the PPF's most material emissions are likely to come from in its supply chain. The session also looked at the cost-balancing implications of reducing emissions and opportunities for setting reduction target dates. The Board considered what Net Zero means for a business and recognised that setting a Net Zero target for our operations can provide significant intangible value to the PPF.

In July 2023, a Lunch & Learn session on the PPF Sustainability Strategy was held for the whole organisation. Departmental training for our Finance and Scheme & Member Services teams was also held through the year.

A session for all investment desk heads to discuss our ESG and climate investment priorities was held at the start of 2024. Ongoing sessions were held with individual desks to define collectively what we mean by sustainable and transition assets.

## Sustainability Strategy accountability

The PPF Board has oversight of our organisational Sustainability Strategy in terms of considering and managing climate-related risks and opportunities across the business. The responsibility for overseeing each of the four goals of our Sustainability Strategy sits with the Board or a specified Board Committee:

- Our **Investment Committee** annually reviews our climate change and stewardship policies in relation to our investments, and is updated on climate-related risks at each quarterly meeting
- Our **Risk and Audit Committee** is responsible for oversight of the risks relating to sustainability at the broader organisational level and how these are being managed
- The **Executive Committee** ensures the implementation of our Sustainability Strategy and oversees the progress of our sustainability working groups through monthly updates
- During the year we also added sustainability as a responsibility within the role of our Chief People Officer as part of our Senior Managers and Certification Regime (SMCR).

As we reported last year, internal working groups have been set up to drive development and implementation of the PPF Sustainability Strategy. Each sustainability working group meets at least quarterly and is chaired by a designated senior manager who is accountable for the implementation of the group's relevant sustainability goals. These groups ensure that sustainability principles are embedded, and progress is communicated, across the PPF.

## Enhancing voting guidelines and oversight

**Voting Guideline Enhancements**

For 2024, we have again raised our standards for climate-related voting at company annual general meetings (AGMs). Our shareholder voting continues to be informed by industry initiatives around Net Zero alignment for both asset owners and asset managers, such as the Transition Pathway Initiative's Management Quality assessment of senior management's progress on climate, and the Climate Action 100+ Net Zero Company Benchmark, which assesses the world's largest corporate greenhouse gas emitters on their transition to Net Zero.

Building on our existing voting guidelines, the following changes were made for 2024:

**Transition Pathway Initiative (TPI):** The TPI Management Quality score threshold that we expect companies to achieve has been raised, based on the expanded assessment framework (e.g. to Level 4 for automotives and diversified mining, with banks now also subject to this threshold).

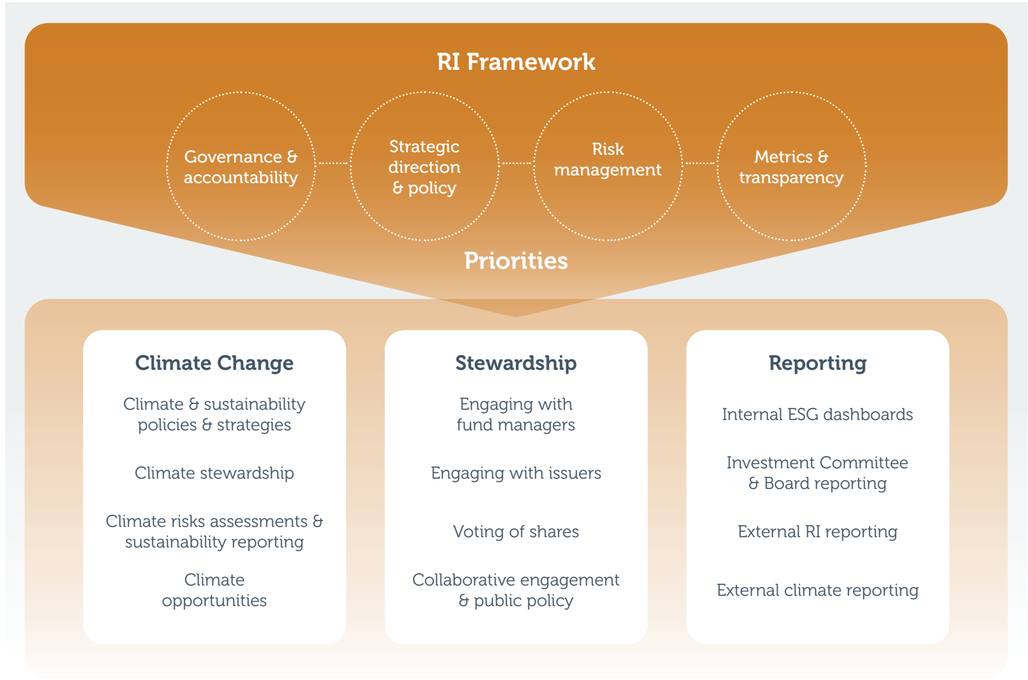
**Climate Action 100+ Net Zero Company Benchmark:** We will consider voting against companies in Climate Action 100+'s scope that lack a comprehensive medium-term emissions reduction target or lack reporting that is aligned with TCFD recommendations.

**Coal:** The coal phase-out policy introduced by our stewardship services provider EOS in 2023 has been further refined to target companies expanding coal infrastructure and those that are not implementing phase-out plans aligned with the Paris Agreement on climate change.

**Shareholder proposals:** With the rise of 'anti-ESG' proposals at AGMs, increased scrutiny is given to proposals and proponents to ensure voting aligns with our expectations. We will continue to review any shareholder proposals related to climate change at European companies internally.

## Our approach to Responsible Investment (RI) and stewardship

Our RI framework puts our core beliefs into practice:




### Next steps

- We are planning more Board training on climate-related topics, including demystifying climate and TCFD metrics. We will also review levels of climate change understanding across PPF committees and identify where learning sessions may be of value.
- An annual update on the Responsible Investment work will be held with the PPF Board to report and discuss progress.
- The Risk & Audit Committee will conduct a deep-dive update on how Board risks are being managed with respect to sustainability.
- Business Plan KPIs for 2024/25 include measuring and reporting on progress and outcomes of the PPF Sustainability Strategy since launch in July 2023, and any resultant emissions reductions.

# Strategy and risk management

This year we continued to develop and implement our organisation-wide Sustainability Strategy. In particular, we extended our approach to analysing climate-related risks and opportunities within our investments and considered climate risks and opportunities across all of our organisational processes.

## Considering the impact of climate on our strategy and resilience

As well as a global concern, we consider climate change to be a major systemic risk that can affect the value of our investments across the short, medium and long term. We have taken steps to address key climate-related risks facing our portfolio and to pursue a market-leading approach in this area. We believe the Climate Change Policy that we have laid out for our investments is fundamental to our long-term investment goals and we are committed to improving our understanding of, and mitigating, these risks and opportunities on behalf of our members.

With the launch of the PPF Sustainability Strategy last year, we have now extended this focus to our operations as well. A Risk & Strategy working group has been set up to ensure sustainability issues are considered at an enterprise level and in all strategic decision-making across the PPF, and that risks can be reported efficiently and effectively through a clear risk management process.

Given the sustainability lens crosses many different types of risk, we conducted risk assessment sessions this year to identify new and existing risks in areas of our business including responsible investments, sustainable procurement, stakeholder management and formal reporting. The outputs from these risk assessment sessions have been used to help articulate our risk appetite and understanding of risk exposure in order to support our decision-making. In particular, we have developed a Climate Change Adaptation Strategy (CCAS), owned by our Chief Risk Officer, outlining how climate-related risks are assessed within our operations. The CCAS identifies key mitigations and further actions where necessary, under a Climate Change Action Plan.

See more on implementation of the PPF Sustainability Strategy on page 11.

## Update on our investment portfolio restructuring

As detailed in last year's report, in April 2023 we moved to a new investment structure so the funding requirements of current members and future claims are managed in two separate portfolios[1]:

**The Matching Portfolio:** This focuses on fully hedging inflation and interest-rate risk in respect of the PPF's current members, allowing us to paying current member benefits as they fall due. This portfolio's assets primarily include government bonds, derivatives and hybrid assets[2] and is predominantly managed internally.

**The Growth Portfolio:** This focuses on protecting and prudently building reserves in order to provide for future claims, increased longevity and any other risks that might materialise. The portfolio comprises diversified assets, including Public Equity, Emerging Market Debt, Investment Grade Corporate Bonds, Absolute Return, Private Equity, Real Estate, Alternative Credit, Infrastructure, and Farmland & Forestry. These are selected to generate a long-term return aligned with the agreed strategic risk target, using a blend of internal and external management.

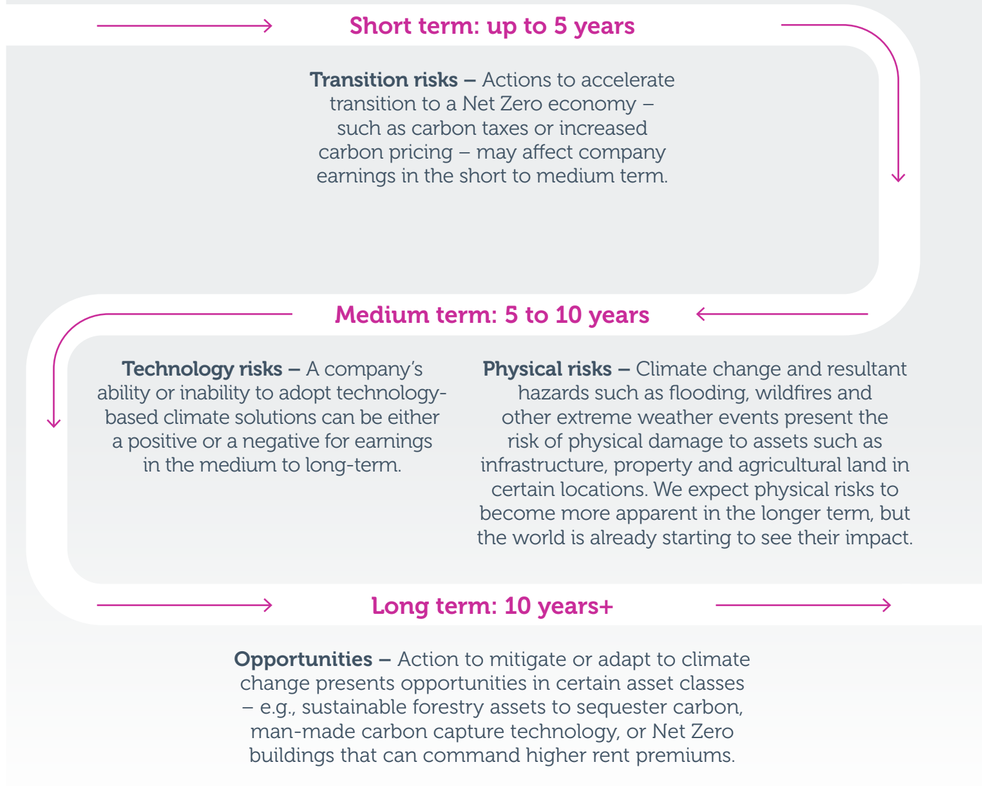
The Growth and Matching Portfolios have separate strategic investment risk targets. Approximately 50/50 of total assets by value is allocated to each, although this is not fixed and can vary.

### Changes to strategic asset allocation

Over the last year, the main changes to our strategic asset allocation were an increase in Sterling Short Duration Credit, Cash and Private Credit (the latter sits in the Matching Portfolio).

## Climate and our investments

**Climate-related risks (and opportunities) can have different likelihoods or magnitude of impact on our investment portfolio, depending on the asset class. The principal risks and opportunities we have identified are:**




### Next steps

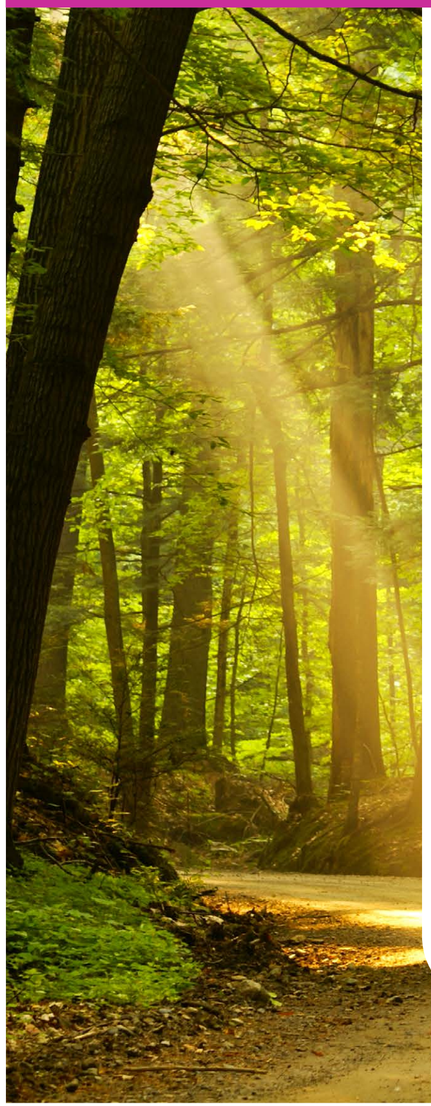
- Given the different objectives, time horizons and resultant strategic asset allocations within our Growth and Matching Portfolios, we will review our consideration of climate-related issues and impacts for each.
- Risk appetite statements will be formally approved by Risk & Audit Committee in the next year.
- A playbook is to be created outlining potential effects of adverse weather on PPF operations.

1 Updated Statement of investment Principles (ppf.co.uk).

2 Hybrid assets have hedging characteristics but also generate excess returns that help to finance the limited leverage in this portfolio.

## STRATEGY AND RISK MANAGEMENT CONTINUED

CASE STUDY



# Scenario analysis in our long-term risk model

To safeguard the ongoing resilience of the PPF, we look to incorporate climate change risks in our long-term risk modelling.

## Quantitative scenario modelling

Most recently, we have used our Long-Term Risk Model (LTRM) to run four climate scenarios to assess the potential impact of different climate change outcomes on projected claims and projected PPF reserves. The following climate scenarios were constructed by asset and liability modelling specialists Ortec Finance as plausible pathways:

| Scenario | Description | Testing |
|---|---|---|
| **Net Zero** | An early and smooth transition with locked-in physical impacts. Market pricing-in dynamics occur smoothly over the period to 2026. This scenario corresponds to an average temperature increase of 1.5°C above pre-industrial levels. | Exposure to the risks and opportunities from the systemic drivers of an orderly transition, and locked-in physical risks. |
| **Net Zero Financial Crisis** | Sudden divestments in 2025 to align portfolios to the Paris Agreement goals have a disruptive effect on financial markets. Sudden repricing is followed by stranded assets and sentiment shock. This scenario corresponds to an average temperature increase of 1.5°C above pre-industrial levels. | The resilience of portfolios to sudden asset repricing, which trigger market dislocation centred on high-emitting stocks. |
| **Limited Action** | Policymakers implement limited nationally determined contributions (NDCs) and fall short of meeting the Paris Agreement goals. Markets price in heightened physical risks for the coming 40 years during the 2026–2030 period, and risks for 40-80 years over the 2036-2040 period. | Scaled-down transition policy, leading to larger physical risks and material transition risks for portfolios. |
| **High Warming** | The world fails to meet the Paris Agreement goals and global warming reaches 4.3°C above pre-industrial levels by 2100. Markets price in severe physical risks for the coming 40 years during the 2026–2030 period, and risks for 40–80 years over the 2036–2040 period. | The impact of physical risks resulting from the exposure to plausible, severe climate change impacts. |

After running these scenarios in our LTRM, we looked at the potential impact on the PPF over the next 10 years, and beyond 10 years.

**Over the next ten years:** The most significant modelled impact comes from the disorderly transition in the Net Zero Financial Crisis scenario. Sudden divestments by investors in 2025 result in abrupt repricing and sentiment shock. Within our modelling, this hits DB pension schemes' funding levels, resulting in higher claims on the PPF and reducing our reserves over the following year. Although projected reserves are forecast to recover by 2028, the impact is notable.

**Beyond ten years:** The Limited Action and High Warming scenarios result in severe physical impacts, which are priced into financial expectations in the second half of the 2030s. Our modelling shows the impact of reduced financial returns as increased claims on the PPF (due to lower DB schemes' funding levels caused by asset deterioration) and lower returns on the PPF's assets. This results in an increase in risk to PPF reserves.

## Limitations of quantitative scenario modelling

The lack of historic data from which to draw modelling assumptions makes it difficult to attach a probability to a scenario and to determine the full range of possible outcomes. Practical considerations to modelling outcomes are further impacted by the complexity of interacting factors, and difficulties in forecasting the size, timing and frequency of financial shocks that may arise from these.

The work done to date by Ortec in deriving their climate scenarios reflects significant progress against these exceptionally challenging limitations. The scenarios being modelled are aimed at providing a range of plausible outcomes, against which to test our results.

### Next steps

Climate scenarios are often described as "plausible scenarios representing the bookends of possible outcomes". Many stem from engaging narratives around a central storyline describing the extent of transition to a Net Zero economy. The limitations of these scenarios, in terms of incorporating dynamical non-linearities (including tipping points), the interactions between climate outcomes and underlying economic modelling assumptions, and the challenges around modelling short-term outcomes of acute physical risks, for example, are increasingly at the fore of discussion.

However, justification of the plausibility of these scenarios is often absent. There is little guidance provided on the likelihood of a scenario, meaning it is difficult to determine the extent to which the outcome of any particular scenario (or indeed, set of scenarios) should influence decision-making. The degree to which available scenarios span the set of possible outcomes, and consequently, the extent of plausible outcomes which are not included, is unclear.

Climate scenario developers continue to push the boundaries of current limitations. But fundamentally, improvement of existing approaches will not address the more general concerns laid out above. In tandem with improvements to existing scenarios, we believe that it may be appropriate to consider alternative approaches which seek to address the current absence of a probabilistic perspective, in order to form a more complete picture of the risks and opportunities inherent in climate change.

# STRATEGY AND RISK MANAGEMENT CONTINUED

## Embedding sustainability across our business

In July 2023, we published the PPF Sustainability Strategy (see right) to formalise the PPF's commitment to long-term environmental and social responsibility across all of our activities.

Our aim is to lead by example, with an ambition to catalyse the growth of a sustainable pensions industry, where securing the financial well-being of pensions savers is fully aligned with the need to safeguard the world they will retire into.

Last year marked significant progress as we achieved some crucial short-term milestones, including the first steps in setting our supply-chain impact on a path towards Net Zero by 2035.

This year, our internal sustainability working groups have ensured that we embed sustainability across our decision-making processes, establishing a clear line of leadership and accountability to the Board for addressing priority areas[1] that we consider to be material to the PPF's business.

The majority of this report focuses on our management of climate-related issues within our investment portfolio, but we also provide a summary of other progress made in the PPF Sustainability Strategy below.

1 Organisational emissions, climate risk management, diversity & inclusion, employee engagement & community impact, responsible investment and sustainable procurement.

> "Our Sustainability strategy sets out our ambition to catalyse the growth of a sustainable pensions industry."

**Our four Sustainability Goals**

The PPF Sustainability Strategy unifies our efforts around four sustainability goals that resonate with our organisational values:

Demonstrating **excellence** in responsible investment
- Looking after our assets

Financial Capital

Ensuring effective stakeholder engagement with **integrity** and **respect**
- Community impact
- Employee and stakeholder engagement

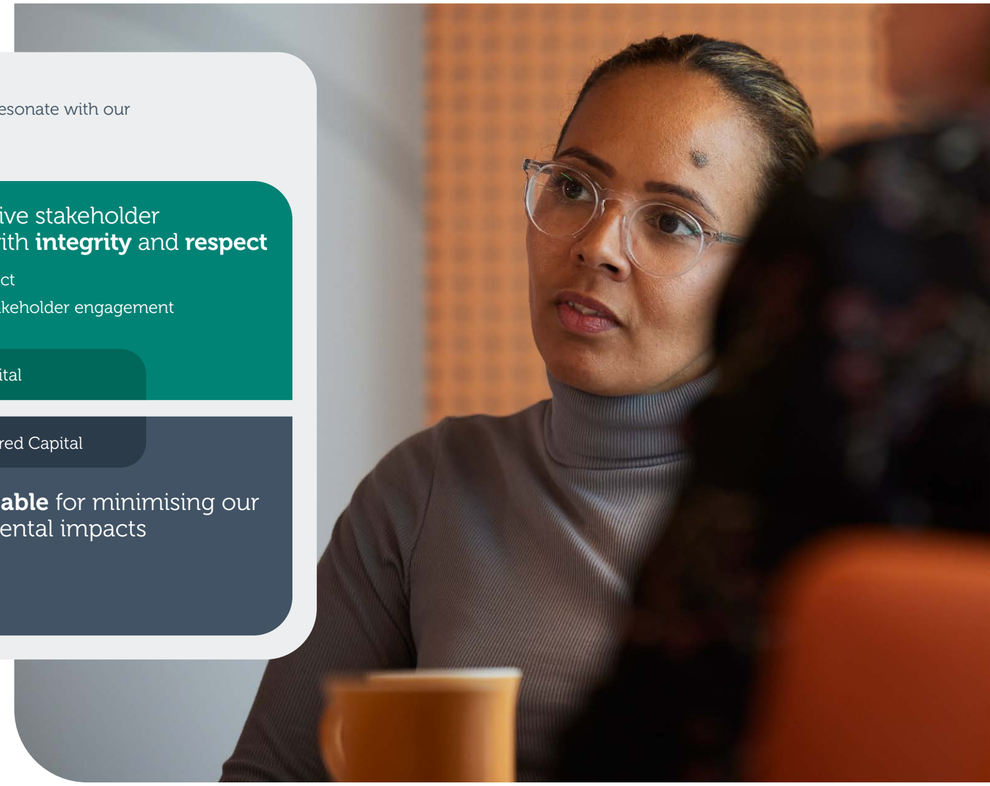
Human & Social Capital

Social Capital

Championing **collaboration** and leading by example
- Diversity & inclusion
- Business ethics

Natural & Manufactured Capital

Being **accountable** for minimising our own environmental impacts
- Operations
- Supply chain



## Summary of achievements so far:

### Governance

We have added sustainability as a specific Statement of Responsibilities (SoR) within our SMCR, sitting under our Chief People Officer as our executive officer responsible for oversight of the PPF's Sustainability Strategy.

### Risk & Strategy

Our Organisational Risk team completed a Climate Change Risk Assessment (CCRA) which outlines the risks to PPF operations resulting from climate change, including assessing the potential impact of physical risks of climate change on our operations. The CCRA assessment included risk identification sessions across all PPF Sustainability Strategy working groups, which have fed into our RCSAs.

### Supply chain

We created our Sustainable Procurement Policy, which focuses on the same three sustainability themes as our RI Stewardship approach (i.e., Climate Change, Diversity & Inclusion and Human Rights). We updated our Supplier Code of Conduct and published it on our public website along with our Sustainable Procurement Policy Statement. We enhanced our supplier sustainability questionnaire to include questions relating to the three sustainability themes above.

### Communications with internal stakeholders

We created a sustainability-focused internal communications plan to engage all PPF employees. This year, questions were added to our Employee Viewpoint survey to evaluate employees' understanding of sustainability and inform activities to promote the PPF Sustainability Strategy. We have frequently posted sustainability-related blogs and employee interviews on the internal PPF employee intranet.

Throughout the year, our internal Sustainability Community Hub continued to inspire and educate on the importance of sustainability both in the PPF and the wider community. The hub serves as a collaborative learning platform where employees have exchanged practical tips for positive environmental impact, such as using reusable coffee cups and second-hand clothing, installing solar panels, minimising food waste, buying electric cars, and embracing sustainable ideas for festive celebrations.

## STRATEGY AND RISK MANAGEMENT CONTINUED

# How we assess climate risks and opportunities

To assess climate-related risks in our investment portfolio, we use a variety of measurement and scenario analysis tools from our data providers. We continue to take a bottom-up perspective when assessing our portfolio for climate-related risks, as we believe these risks will play out in different ways depending on the asset class. We also focus on forward-looking alignment with global goals such as the Paris Agreement on Climate Change.

### Why we measure climate risk scenarios

Climate change presents a wide range of threats and opportunities to the value of the assets we hold in our investment portfolio. These range from the impact that the physical effects of a changing climate, such as flood, hurricane and drought, can have on a company's interests and profitability, to the commercial impact of legislation introduced to try to mitigate global warming (such as requiring firms to cut their carbon emissions).

By assessing the impact of a spectrum of scenarios that could play out as the world takes very different approaches to responding to climate change, we can assess how vulnerable different assets are to potential loss. This can inform both the assets we choose to hold and how we engage with companies and other assets to improve their own resilience against these scenarios.

## Our climate transition scenarios

When stress-testing the Climate Value-at-Risk (Climate VaR) of our portfolios, our data provider MSCI applies a number of climate transition scenarios that largely align with those developed by the Network for Greening the Financial System (NGFS). Although the scenarios only cover a small number of plausible pathways and have known limitations, they can still provide a useful starting point to understand value-at-risk assessments.

MSCI have incorporated the most recent updates from the NGFS (see right and overleaf), although they continue to offer the Divergent Net Zero scenario for continuity.

The NGFS scenarios provide strong evidence that early action to deliver an orderly transition to achieve global Net Zero emissions by 2050 is the optimal pathway for minimising climate-related physical risks and losses globally.

**Portraits of two opposite NGFS scenarios**

**+1.4°C** — More transition risks

**+3°C** — More physical risks

### Net Zero 2050

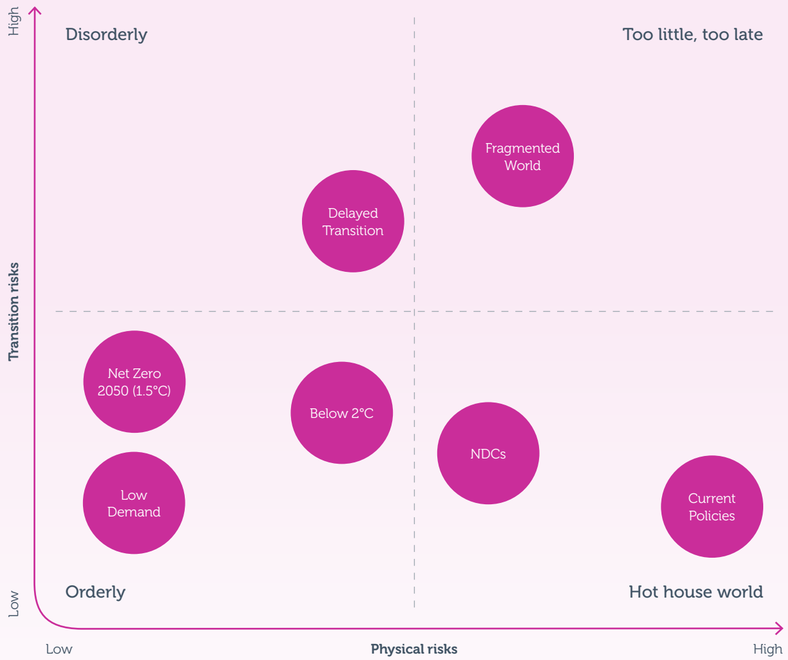
Reaching Net Zero global $CO_2$ emissions by 2050 will require an ambitious transition across all sectors of the economy. Scenarios tend to emphasise the increasing importance of decarbonising the electricity supply, increasing electricity use, increasing energy efficiency, and developing new technologies to tackle hard-to-abate emissions. Transition risks to the economy could result from higher emissions costs and changes in business and consumer preferences. Physical risks would be minimised.

### Current Policies

While many countries have started to introduce climate policies, they are not yet sufficient to achieve official commitments and targets. If no further measures are introduced, 3°C or more of warming could occur by 2100. This would likely result in deteriorating living conditions in many parts of the world and lead to some irreversible impacts like sea-level rise. Physical risks to the economy could result from disruption to ecosystems, health, infrastructure and supply chains.

Source: NGFS

**How our climate transition scenarios map to the NGFS scenario framework:**




| Our scenario category | Equivalent NGFS scenario |
|---|---|
| 1.5°C orderly | Low Demand/Net Zero 2050 |
| 1.5°C disorderly | Divergent Net Zero |
| 2°C orderly | Below 2°C |
| 2°C disorderly | Delayed transition |
| 3°C NDC | NDCs |

Source: NGFS, MSCI

| | |
|---|---|
| **Net Zero 2050** | Net Zero 2050 is an ambitious scenario that limits global warming to 1.5°C through stringent climate policies and innovation, reaching Net Zero $CO_2$ emissions around 2050. It assumes some jurisdictions such as the US, EU and Japan reach Net Zero for all greenhouse gases by this point. |
| **Low Demand** | The Low Demand scenario assumes that significant behavioural changes, reducing energy demand, mitigate the pressure on the economic system to reach global Net Zero $CO_2$ emissions around 2050. |
| **Below 2°C** | Below 2°C gradually increases the stringency of climate policies, giving a 67% chance of limiting warming below 2°C. |
| **Delayed Transition** | Delayed Transition assumes global annual emissions do not decrease until 2030. Strong policies are then needed to limit warming to below 2°C. Negative emissions are limited. |
| **Nationally Determined Contributions** | Nationally Determined Contributions (NDCs) includes all pledged policies even if not yet implemented. |
| **Current Policies** | Current policies assumed that only currently implemented policies are preserved, leading to high physical risks. |
| **Fragmented World** | The Fragmented World scenario assumes delayed and divergent climate policy ambition globally, leading to elevated transition risks in some countries and high physical risks everywhere due to the overall ineffectiveness of the transition. |

# STRATEGY AND RISK MANAGEMENT CONTINUED

**The NGFS climate transition scenarios fall into four groups:**

**Orderly** scenarios assume climate policies are introduced early and become gradually more stringent. Both physical and transition risks are relatively subdued.

**Disorderly** scenarios explore higher transition risk due to policies being delayed or divergent across countries and sectors. Carbon prices are typically higher for a given temperature outcome.

**Hot house world** scenarios assume that some climate policies are implemented in some jurisdictions, but global efforts are insufficient to halt significant global warming. Critical temperature thresholds are exceeded, leading to severe physical risks and irreversible impacts like sea-level rise.

**Too little, too late** scenarios reflect delays and international divergences in climate policy ambition that imply elevated transition risks in some countries and high physical risks in all countries due to the overall ineffectiveness of the transition.

### Updates to NGFS climate transition scenarios

The NGFS climate transition scenarios were updated in November 2023 to a fourth edition to reflect more recent geopolitical situations (e.g., the Ukraine war) and changing technology and policy landscapes.

- The 1.5 Orderly scenario has been changed to a Low Demand scenario to better highlight the challenges to keep global warming within the Paris Agreement goal of 1.5°C. The new scenario demonstrates the need for larger amounts of electrification and energy efficiency to reach 1.5°C, all at a lower cost than a Disorderly or No Action situation.
- A Fragmented World scenario has been introduced to the Too Little, Too Late group to explore the adverse effects of a fragmented climate policy landscape with a delayed response beginning in 2030. It assumes a 2°C temperature rise by the end of the century.
- The Divergent Net Zero scenario has been removed as a "successful" uncoordinated transition is deemed unlikely.
- The Below 2°C scenario has been updated to include country-level Net Zero targets that are achieved at around 80 per cent of 2020 emission levels.
- The 'Nationally Determined Contributions' (NDC) scenario has had its country-level targets updated to consider all targets published by the United Nations Framework Convention on Climate Change (UNFCCC) and in place as of March 2023. Due to the new, more ambitious climate targets that are part of the Paris Agreement framework, this has slightly decreased physical risks, although they remain high.

> "As well as assessing risks that climate change poses to the value of our investments, we look ahead to see how opportunities in a Net Zero world might benefit our portfolio."

## MSCI Climate VaR models enhancements

Our external data provider, MSCI, has updated its overall Climate Value-at-Risk models by incorporating a number of enhancements to improve the comprehensiveness and accuracy of data and reflect evolving risks.

### Transition VaR model

MSCI has introduced some changes to its Transition VaR model to align more closely with NGFS's updated climate scenarios, detailed left. As the NGFS updates were more of an evolution, this has not led to major changes in the outputs from the MSCI Transition VaR model, with correlation between the two models at over 0.93.

### Technology Opportunities model

As well as assessing risks that climate change poses to the value of our investments, we look ahead to see how opportunities in a Net Zero world might benefit our portfolio. The Technology Opportunities model now reflects greater emphasis put on electricity generation, with a greater need for renewable energy to compensate the lower use of carbon dioxide removal.

### Physical VaR model

Changes were made to the Physical VaR Models to align with NGFS's scenarios. Each NGFS scenario now has a different physical risk that aligns with the transition risk. This is a positive development since the physical risk used to be scenario-agnostic. Other amends to the physical risk model are:

- Extreme heat inputs amended to better reflect the combined effects of high temperatures and humidity.
- The tropical cyclone model now incorporates business interruption losses in addition to modelled damage losses.
- The river low flow model will now include hydro plants in its scope of analysis.
- Location data has increased its assessment to cover 1.1 million locations (previously it covered 270,000). This should increase accuracy as knowing the location of assets can help to gauge physical risks like extreme heat and flooding.

# STRATEGY AND RISK MANAGEMENT CONTINUED

## Progress on monitoring and analysis of our investments

### Enhancements to ESG reporting

We continue to push for improvement in the proportion of our portfolio covered by key ESG metrics, especially climate-related metrics for ESG monitoring and measurement. This includes working closely with our ESG data providers and portfolio management systems vendors to improve coverage on their platforms. We also provide asset class reporting templates for our external managers to complete and support corporate disclosure campaigns.

### Public Markets

There have been no significant changes to our quarterly ESG reporting templates for our Public Markets managers which are now very comprehensive and have led to an improvement in the quality of reporting, especially on climate risks.

### Private Markets

We continue to look to improve the depth and comparability of ESG reporting among our external managers, with good progress on the reporting of alternative assets.

### eFront® ESG Data Service project

We continue to support the Outreach project by eFront® (part of BlackRock) to collect Private Markets data on greenhouse gas emissions. As the campaign focuses mainly on asset-level data, we are, as mentioned in the bullet below, also sending our custom PPF ESG template to our Private Markets managers, requesting manager and portfolio-level data to supplement the eFront® ESG Data Service project results. See more on page 18.

### PPF ESG template response rates

There has been an increase in response rates to our ESG template from our Private Equity and Private Credit managers. Forty-two per cent of Alternative Credit managers and 64 per cent of Private Equity managers reported portfolio carbon emissions to us this year versus 8 per cent and 55 per cent respectively last year. All our Real Estate managers have responded to our template and detailed their exposure to sustainable assets by energy bands which we report on pages 33 and 35. We also launched a template to request carbon emissions data for our externally-managed Private Credit assets within our Matching Portfolio for the first time. Again, all relevant managers were responsive – see the findings on page 33.

### Infrastructure templates

This year, we rolled out a new template to analyse our Infrastructure assets, including their Net Zero transition progress. All the infrastructure managers we contacted responded to us, including ones that had been unresponsive through the eFront® ESG Data Service project. All managers reported the transition breakdown of their assets, which has fed into our Transition & Sustainable Assets framework, detailed below.

### Transition & Sustainable Assets framework

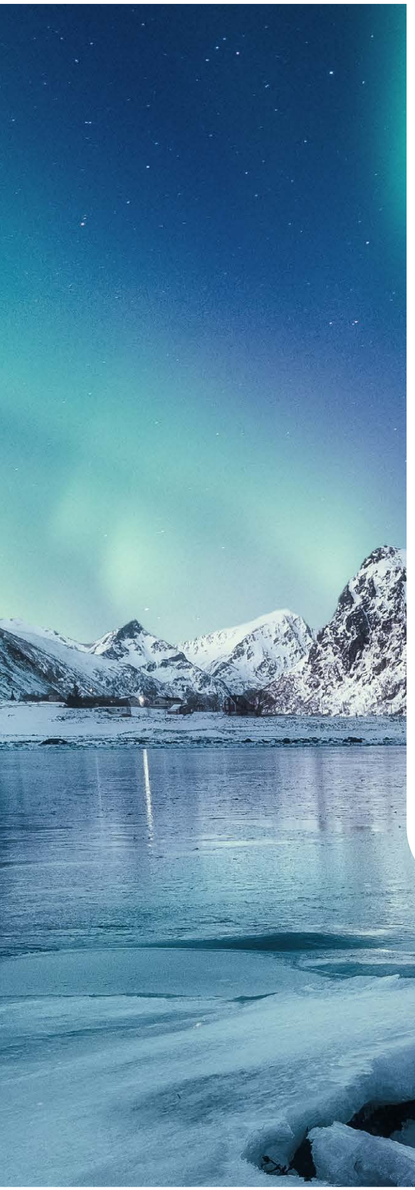
This year, we have carried out a more detailed 'bottom-up' project within our Private Markets portfolios to build a framework for identifying and classifying assets as 'sustainable' or 'transitioning'. We have focused our efforts firstly on our Real Assets and Infrastructure portfolios, where it is intuitively easier to assess assets in this way. See the results of this work so far on page 34 within the Metrics section.

## Summary of our processes and tools for assessing climate risks across asset classes

This table summarises how we are looking to measure climate risks in each asset class and how much of the total PPF portfolio value is currently covered.

| Metric | Asset class covered | What is measured | Why we have chosen this |
|---|---|---|---|
| **Carbon emissions**<br>**74%**<br>of total PPF portfolio value covered (55% in 2022/23) | Public Markets | **Absolute carbon emissions** apportioned using EVIC to PPF's holdings (tonnes $CO_2e$) | Absolute carbon emissions indicate the total amount of GHGs emitted that have been associated with our investments |
| | | **Relative carbon intensity** apportioned using EVIC to PPF's holdings & normalised by amount invested (tonnes $CO_2e$) | Relative carbon intensity measures how carbon intensive an investment in a portfolio, based on the value of our investments |
| | | **Weighted average carbon intensity (WACI)** weighted by PPF's holdings & normalised by revenues (corporates) or $M GDP (sovereigns) (tonnes $CO_2e$) | Weighted average carbon intensity (revenue based) allows us perform cross-sector comparisons and evaluate exposure to carbon-intensive companies |
| | Private Markets | **Absolute carbon emissions** apportioned using Fair Market Value and Enterprise Value (or % ownership if not available) to PPF's holdings (tonnes $CO_2e$) | As this is the first year we have been able to assess our private markets assets, we have started with measuring the absolute emissions associated with these investments |
| **Climate Value-at-Risk (Climate VaR)**<br>**51%**<br>of total PPF portfolio value covered (55% in 2022/23) | Equity, Credit, UK Credit | **Transition risks (Climate VaR)** includes policy-related risks and technology opportunities (% of Enterprise Value) | Transition risks are the business-related risks (e.g., policy, legal, technological and market) that arise as society and the global economy transition to a low-carbon/Net Zero economy |
| | | **Physical risks (Climate VaR)** includes acute & chronic risks (% of Enterprise Value) | Physical risks arise from the impact of climate change, on physical assets such as land, property and infrastructure. These risks can be event driven (acute – e.g., hurricane) or associated with longer-term shifts in climate patterns (chronic – e.g., rising heat) |
| | Sovereign Debt | **Country-level Climate VaR metrics** | Climate Value-at-Risk metrics are forward-looking estimates of the loss or gain an asset or portfolio may experience under different climate scenarios within a given time horizon |
| **Portfolio Alignment**<br>**94%**<br>of total PPF portfolio value covered (95% in 2022/23)<br>* See page 30 for what is considered in-scope or out-of-scope. | All asset classes* | **Binary target: % portfolio committed to the Science Based Target initiative (SBTi)** or other science-based targets (% of portfolio by market value) | We assess the percentage of portfolio companies committed to using robust science-based targets to understand how much and how quickly they must decarbonise to prevent the worst impacts of climate change |
| | | **Implied Temperature Rise (ITR)** expressed in °C (by 2100) | The Implied Temperature Rise metric indicates how our investment portfolio aligns to global climate targets, such as the Paris Agreement. It estimates the global implied temperature rise by the year 2100 if the whole global economy had the same carbon budget over-/undershoot level as our portfolio |
| **Sustainability exposure****<br>**77%**<br>of total PPF portfolio value covered (63% in 2022/23)<br>** See pages 34–35 for definitions. | Equity and Corporate Credit | Green revenues/exposure to low-carbon solutions | |
| | Sovereign and Corporate Credit | Green bonds, social bonds, sustainability bonds and sustainability-linked bonds | |
| | Real Estate | High quality standard certification/High energy rating | Explained on pages 33 and 35 |
| | Infrastructure, Real Estate, UK Private Credit | PPF Transition and Sustainable assets framework | Explained on pages 34–35 |
| | Forestry | Certified timberland in accordance with the FSC and/or PEFC | |
| | Remaining asset classes | Work in progress | |

# STRATEGY AND RISK MANAGEMENT CONTINUED



## How we manage the risks identified

Our Responsible Investment strategy is based on a preference for engagement rather than divestment to drive good practice on climate-related and other issues. We look to engage with both our managers and underlying portfolio companies and issuers to encourage progress wherever possible.

### Stewardship and engagement

We continue to engage extensively with external managers, encouraging ongoing improvement in their approaches to understanding and managing climate risks in their portfolios and ensuring they continue to meet our standards in this area.

Our stewardship services provider EOS prioritises climate risk and opportunity management in its engagement with issuers, which feeds into voting recommendations at company AGMs. During the year, EOS consulted on its three-year engagement plan to determine its engagement priorities for the 2024 to 2026 period. Climate change will remain a core focus topic, which we welcomed. The engagement will continue to focus on ensuring company strategies and actions are aligned to the goals of the Paris Agreement and to ensuring that business models are resilient and can adapt to future climate change.

We continue to reflect the Institutional Investors Group on Climate Change (IIGCC)'s Net Zero Stewardship Toolkit in our own stewardship processes around climate risks, most notably in relation to our Climate Watchlist (introduced in last year's report and update provided on pages 16–17).

**Enhancing our voting guidelines on climate change**

As detailed on page 08, we updated our voting guidelines, continuing our integration of various climate measures into our wider voting strategy. This includes specifying situations where we will consider voting against management on issues including climate change.

We are reviewing voting decisions for all companies on our Climate Watchlist to ensure voting continuity where appropriate. To further support our company oversight, climate-related resolutions to take into account during the voting season are flagged to us by the IIGCC. EOS also provides voting alerts to us in relation to contentious meetings.

**Engagement Escalation Approach**

During the year, we also implemented a formal escalation policy that details the range of potential strategies we will consider where an engagement is not progressing at a sufficient pace privately with a company. Where this happens, escalation strategies such as collaborating with other investors or campaign groups, issuing a public statement or filing a shareholder resolution may be considered.

When problems persist, voting action can be an important tool at our disposal, and one that we will use where necessary. However, we will only consider voting against board recommendations as part of a thoughtful escalation of an issue. We will never use it as a shortcut to grabbing a board's attention. We will always seek to engage with the board and/or company management to express our intention regarding any votes against management. Ultimately, selective divestment out of a company may be the outcome of a failed engagement if the severity of the issue is sufficiently material.

**Bank counterparty ESG assessment**

As part of our ESG integration strategy across all asset classes, we surveyed our largest bank counterparties for the first time this year. ESG considerations have become increasingly important in counterparty risk due to the growing awareness of social inequality and climate change. We developed a comprehensive ESG questionnaire for our bank counterparties and the responses have been used as part of the PPF's annual counterparty review process.

More details on our counterparty ESG assessment will be published in our next Responsible Investment Report, due out in autumn 2024.

### Leveraging industry collaboration to drive company engagement

Collaboration with the wider asset management industry is essential to delivering on our climate objectives, particularly when it comes to achieving our goals in relation to our Climate Watchlist of high-emissions companies. Three industry initiatives have been instrumental in supporting our company engagement:

**CDP Non-Disclosure Campaign**

Again this year, we supported global disclosure organisation CDP's annual campaign to engage with major companies that have failed to respond to its climate change, forestry and/or water security questionnaires. We led company engagement on six companies spread around the world. Two of these companies then submitted climate data to CDP in summer 2023, one of which is on our Climate Watchlist. We were able to leverage foreign language skills within our workforce to communicate with the company in its native language, which may have helped us engage more effectively and led to the positive outcome.

**Climate Action 100+**

The PPF continues to be a signatory to Climate Action 100+, the largest-ever investor engagement initiative on climate change. It aims to put pressure on 170 of the world's largest greenhouse gas emitters, responsible for approximately 80 per cent of global industrial emissions. Largely as a result of Climate Action 100+, 77 per cent (75 per cent in 2022) of focus companies have now committed to Net Zero by 2050 or sooner across at least Scope 1 and 2 emissions, and 90 per cent have explicitly committed to aligning their disclosures with TCFD. Of the 87 companies on our Climate Watchlist, 47 are engaged as part of the Climate Action 100+ programme.

**IIGCC Net Zero Engagement Initiative**

We joined the Institutional Investors Group on Climate Change (IIGCC)'s Net Zero Engagement Initiative (NZEI), which was launched in spring 2023 to build on and extend the reach of investor engagement beyond the Climate Action 100+ list to include more companies that are heavy users of fossil fuels. We leverage the NZEI to further align engagement expectations with our Climate Watchlist Companies (which emerged from our own Paris Portfolio Alignment Project). We are a lead direct engager with one company on our Climate Watchlist that is also identified by the NZEI.

# STRATEGY AND RISK MANAGEMENT CONTINUED

## Engaging with our Climate Watchlist

This year, we prioritised our investor engagement efforts by further developing processes around our Climate Watchlist. As we reported in last year's report, the Climate Watchlist comprises over 80 companies (87 at the time of writing) that contribute at least 70 per cent of emissions to our Public Markets book and are therefore subject to a higher level of engagement and monitoring.

Every Climate Watchlist Company (CWC) is engaged by either PPF directly, through an external manager, our stewardship services provider EOS or through Climate Action 100+ or the IIGCC Net Zero Engagement Initiative (NZEI) – see pie-chart. As the bar-chart shows, our CWCs are predominantly companies in high-impact sectors (71 per cent in Energy, Materials and Utilities) and mainly in North America (39 per cent) and West Europe (25 per cent).

Some of these companies are further along on their emissions reduction journey than others.

We have therefore grouped objectives by level of progress, e.g., from requesting disclosure to encouraging better quality disclosure to urging science-based targets to be set.

We acknowledge that not all engagement efforts are successful however, so our new escalation policy provides a clear process to follow if sufficient progress is not being made following engagement. This policy has already been applied at one of our largest watchlist companies, Shell Plc. We co-filed a shareholder resolution in December 2023, alongside 26 other investors, to request greater clarity from the company on how the company's medium-term targets are aligned with the Paris Agreement, especially for scope 3 emissions.

We have so far considered only our Public Markets book for building the Climate Watchlist because it has adequate carbon data transparency and availability. However, we are engaging with Private Markets managers through the eFront® ESG Data Service project (see page 18) to improve carbon data transparency for our Private Market assets as well.

## Progress on engagement with Climate Watchlist Companies

Engagement on climate issues with portfolio companies is a lengthy process that requires proper monitoring and resourcing. It usually takes many rounds of engagement over years for serious change to happen and the results to be obvious.

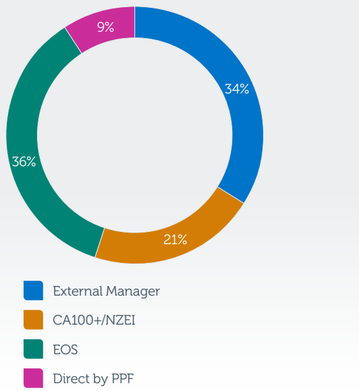
To help with this process and track progress, we apply EOS's milestone system – see right. Applying this system, 29 CWCs (33 per cent) made progress* on engagement objectives throughout the year – see pie-chart, bottom right. Mostly progress was made on GHG Emissions Reduction and Climate Governance Transparency, and, in a few cases, on Climate Opportunities and Physical Risk.

As the chart shows, 18 CWCs are still in the initial engagement phase of 'Formulating strategy'. We will move to formulating climate-based objectives for future engagement with these companies over the coming year.

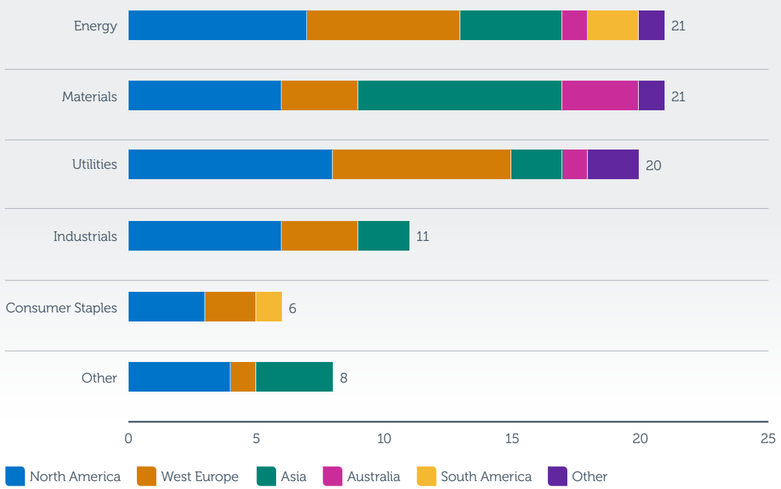
**The EOS Engagement Milestone system and progress with Climate Watchlist Companies**


* A company has achieved 'Some progress' when they have moved one milestone on at least one engagement objective and 'Good progress' when they have moved on average two milestones on engagement objectives.

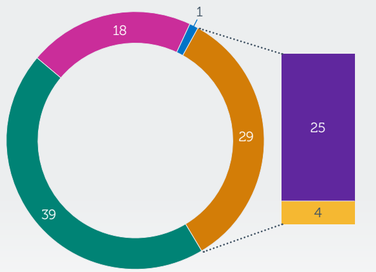
**Climate Watchlist Companies by source of engagement**




**Climate Watchlist Companies by sector and region**




**CWC – Engagement progress 2023**




> "Engagement on climate issues with portfolio companies is a lengthy process that requires proper monitoring and resourcing. It usually takes many rounds of engagement over years for serious change to happen and the results to be obvious."

# STRATEGY AND RISK MANAGEMENT CONTINUED

## Our Climate Watchlist – company progress examples

### CK Hutchison

**Good Progress**

CK Hutchison is a Hong Kong-based conglomerate with an international presence in many sectors (e.g., infrastructure, ports and telecommunications). In the UK, it also has a strong presence in retail and utilities. Since our Stewardship services provider engaged with the company, it has committed to an SBTi Net Zero target at the group level, with medium-term targets and phasing out coal-fired power generation globally by 2035. It has published its first TCFD report and is conducting scenario analysis to formulate a detailed climate transition plan for the group.

### Phillips66

**Good Progress**

Despite the ESG backlash in the US, Phillips 66, a US energy company, has implemented several approaches to address methane emissions since acquiring DCP Midstream, an oil and gas midstream company. This includes the integration of systems and people with emphasis on management oversight via a methane working group, leveraging technologies, and participating in industry consortia and dialogues. It is currently assessing the potential to report methane emissions in line with The Oil & Gas Methane Partnership reporting framework.

### Rio Tinto

**Deterioration**

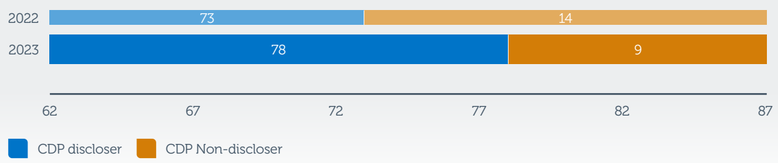
The world's second-largest miner Rio Tinto announced in July 2023 that it would not be able to meet its own 2025 target to reduce carbon emissions by 15 per cent unless it uses carbon offsets[1]. This step back is not the direction of travel that we would expect from a high-emitting company. One of our external managers is continuing to engage with the company and, despite technological and market challenges, remains confident of the company's commitment to its 2030 target.

1 https://www.mining.com/rio-tinto-to-miss-2025-emissions-cuts-targets/.

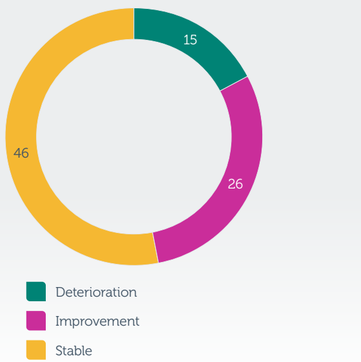
## Our Climate Watchlist and CDP disclosure

Although we welcome disclosure from companies, it is equally important to us that we have quality data available. As part of the PPF Sustainability Strategy's 2023/24 KPIs, we are committed to ensuring that at least 80 per cent of companies on our Climate Watchlist are making disclosures on emissions, with a view to standardising how this is reported. Despite improvement in carbon data availability in Public Markets, more still needs to be done. We are therefore engaging with public companies, either by leading or supporting engagements through CDP, the global standard platform for environmental data disclosure.

**Climate Watchlist Companies – CDP disclosure progress**




**CDP disclosure score progress of Climate Watchlist Companies**




**90%**

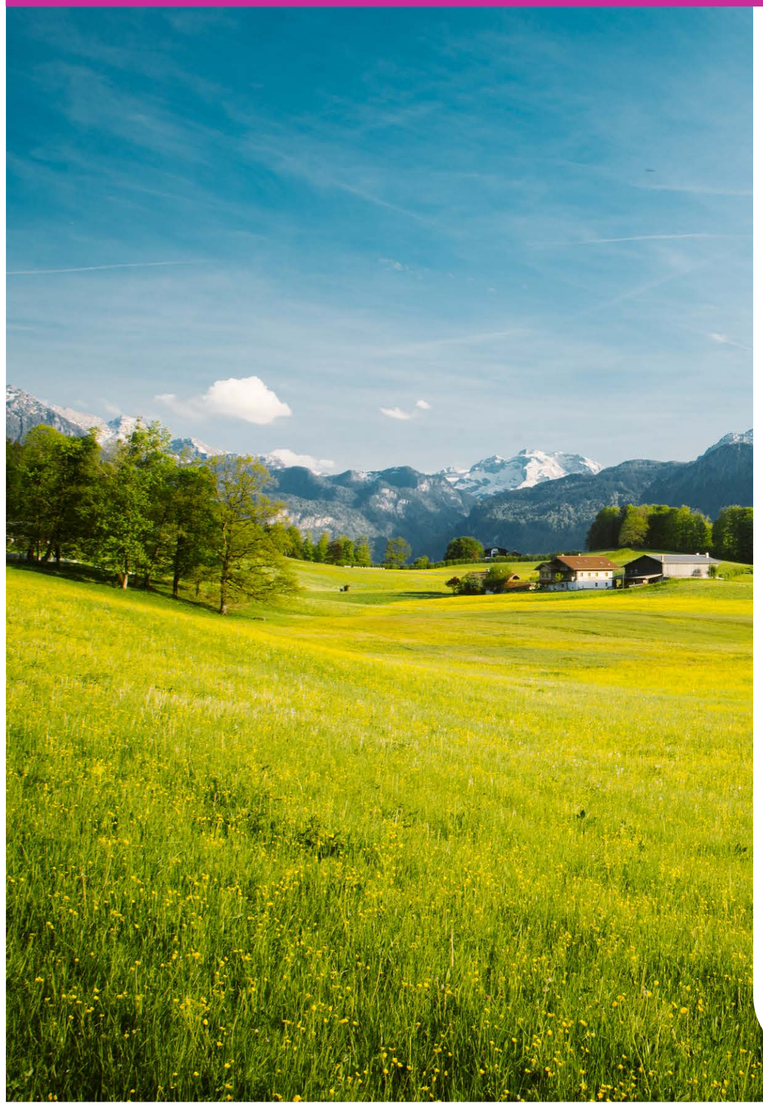
of companies on our Climate Watchlist reported in the 2023 CDP annual disclosure questionnaire versus 84 per cent in 2022

## Looking at companies on our Climate Watchlist

- **78 (90 per cent)** are disclosing to CDP now versus 73 (84 per cent) last year.
- **The five companies** that disclosed to CDP for the first time this year are mainly North American or Energy companies. One of them, a major Chinese coal company, has disclosed for the first time – we led the engagement through the CDP Non-Disclosure Campaign to achieve this.
- **59 (68 per cent)** have a high disclosure score of between 'A' and 'B-'; **72 (83 per cent)** either maintained or improved their CDP score compared to last year.

## STRATEGY AND RISK MANAGEMENT CONTINUED

CASE STUDY



# Update on the eFront® ESG Data Service project

As an eFront® client, in late-2021 we subscribed to the eFront® ESG Data Service private markets project to start capturing ESG data on a voluntary basis from general partners (GPs) and underlying portfolio companies for a small number of funds. Over 2023, the project was significantly expanded across GPs on the eFront® platform and is now supported by 19 investor clients, including the PPF.

### eFront® ESG Data Service project – Campaign in numbers

as at 2023

**19**
investor clients engaged

**241**
asset managers engaged

**674**
unique funds captured

**160,000+**
data points collected

For us, the number of GPs covered in our portfolios has increased eightfold from the pilot to 49. Whilst it is not mandatory for GPs to participate in the survey and submit data, we have spent a lot of time encouraging our GPs to start reporting this data, in terms of preparing for regulation and the benefit of having primary data to understand the risks and opportunities facing portfolio companies.

As a result, this year approximately half the PPF's GPs provided December 2022 data to eFront® ESG Data Service project, compared with 17 per cent for the overall campaign (last year's campaign for 2021 data saw a success rate of 60 per cent for the PPF versus 15 per cent overall). We have now received data for approximately 550 portfolio companies across core ESG and carbon metrics, including Scope 1, 2 and 3 emissions, biodiversity impacts and UN Global Compact violations[1].

The most-reported metrics continued to be energy-consumption/emissions-based metrics (with nearly two-thirds of the companies covered providing Scope 1 and 2 emissions data), followed by reporting on policies to monitor UN Global Compact compliance. Interestingly, the campaign did not find a positive bias towards larger companies providing more reporting (as usually seen among public companies). A more likely driver of disclosure is whether assets are held in a fund with Article 9 status under the EU's Sustainable Finance Disclosure Regulation, which tend to have a smaller enterprise value on average.

The campaign uses emissions reported from the GPs and will populate gaps using Clarity AI, a tool that calculates estimated Private Markets emissions using proxies from Public Markets company emissions.

When comparing responses of the underlying portfolio companies by metric, our rates are slightly higher than or in line with the eFront® ESG Data Service project campaign for most metrics, reflecting our efforts to strive for better transparency and higher disclosure among both public and private market investments.

| Example metrics included in eFront® ESG Data Service project | % PPF portfolio companies covered | eFront® ESG Data Service project campaign overall |
|---|---|---|
| Scope 1 GHG emissions | 60% | 56% |
| Scope 2 GHG emissions | 60% | 56% |
| Scope 3 GHG emissions | 42% | 39% |
| Energy consumed | 54% | 47% |
| Renewable energy consumed | 35% | 38% |
| Fossil fuel | 62% | 51% |
| Biodiversity sensitive areas | 54% | 44% |
| Board gender ratio | 31% | 38% |
| Policies to monitor UNGC principles compliance | 55% | 44% |
| Violation of UNGC principles | 56% | 48% |

Source: PPF/eFront® ESG Data Service project

**Next steps**

- We are starting to see more convergence around the most appropriate key metrics to ask private companies to disclose. In Europe, the Sustainable Finance Disclosure Regulation's 'Principal Adverse Impact' (PAI) metrics are strongly supported. Helpfully in the US, the ESG Data Convergence Initiative (EDCI) framework has a number of indicators that largely coincide with the EU's PAI disclosures.
- For the next year's data collection, eFront® ESG Data Service project is looking to leverage further the appetite for the EDCI as a way to encourage higher response rates from US-based GPs.
- The reporting templates used by eFront® ESG Data Service project have also been customised to recognise the nuances across different asset types, especially in real assets such as Infrastructure and Real Estate.

1 Based predominantly on the SFDR's obligatory disclosure of 14 Principal Adverse Indicators (PAIs).

Note: BlackRock's eFront® platform is a financial technology platform designed for institutional use only and is not intended for end investor use. Certain Aladdin technology products and services may not be offered by BlackRock in your local jurisdiction.

# Metrics

Our priority of persistently pushing for high-quality carbon emissions disclosure across our investment portfolio – so we can better assess its alignment with the goals of the Paris Agreement on climate change – has continued for another year across all asset classes we hold. We are still seeing the most progress within Public Markets, although over time the eFront® ESG Data Service project detailed in the previous section should also provide more disclosure for our Private Market assets.

### Why carbon emissions disclosure is important

Understanding how much carbon is being emitted into the atmosphere by the assets in our portfolio is critical to supporting our ambition of contributing to the global transition to Net Zero. First, by understanding where the greatest emissions are being generated, we can engage with the underlying company, bond issuer, real estate landlord etc to take action to reduce them. As well as reducing the impact of our investments on our planet, this also makes our portfolio more resilient (and potentially less likely to lose value) as the world looks to move to 'Net Zero' carbon emissions.

High-quality carbon disclosure that's reported by the assets themselves (rather than having to use approximations) is also a good sign that a company or issuer is taking measurement of (and therefore action on) their carbon emissions seriously.

Our goal is to see carbon disclosure rates for our whole portfolio increase – while over time, emissions generated by our portfolio fall.

> "Good quality disclosure is critical so that our analysis of climate-related risks is as valuable and decision-useful as possible."

## Corporates' disclosure rates and data quality

Good quality disclosure is critical so that our analysis of climate-related risks is as valuable and decision-useful as possible. We measure whether carbon emissions are reported by portfolio companies themselves, if they had to be estimated by our ESG data provider or are classified as not covered at all. We also look at the split between reported and estimated carbon emissions data on a "weighted by emissions" basis (rather than just weighted by market value). Across our listed market portfolios, we have seen an increase in the overall coverage of the holdings, up from 95 per cent last year to 97 per cent this year.

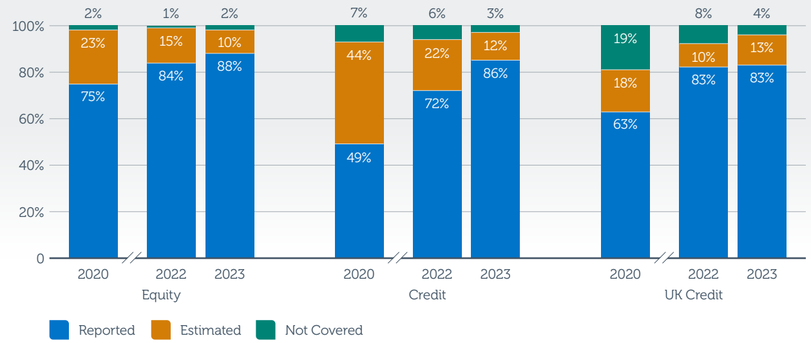
**Equity:** This year's assessment of reported emissions for our Equity holdings increased by 4 per cent. This is mainly due to US, Chinese and Japanese names providing better disclosure in 2023, so our data provider MSCI didn't have to estimate their emissions. Progress on carbon disclosure requirements is extending beyond the UK and Europe, which should improve our understanding of companies' progress globally on reducing emissions.

Ninety per cent of total carbon emissions for our Equity holdings are now reported rather than estimated, which should mean we can track emissions from our portfolio more accurately. However – despite the improvements mentioned above – emissions disclosure levels in China and the US are still relatively low, so more progress is still needed in these countries.

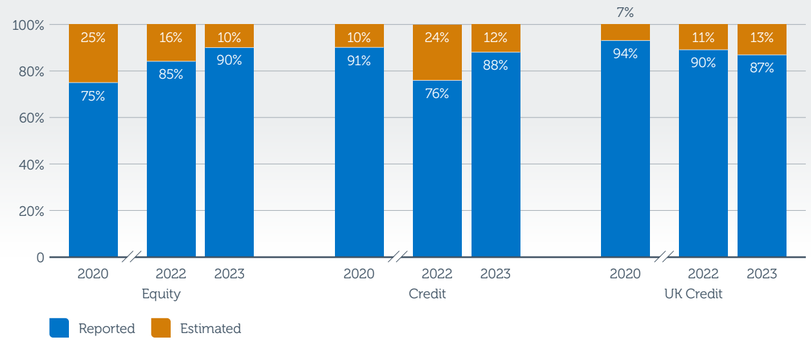
**Credit:** There has been a year-on-year halving in the percentage of Credit assets by market value that are not covered by our data provider, from 6 per cent to 3 per cent, as MSCI continues to increase its coverage of emissions from fixed income issuers. The 14 per cent increase in reported emissions is mainly due to new positions reporting and also some existing positions graduating from estimated to reported emissions. As with our Equity book, this means that a higher proportion of our total carbon emissions from Credit are now reported rather than estimated (88 per cent vs 76 per cent in 2022), which should allow for more accurate emissions analysis.

**UK Credit:** We saw similar progress for UK Credit as for our Credit book, with the market value of UK Credit not covered for emissions data falling from 8 per cent to 4 per cent. Again, this was helped by our data provider MSCI increasing its coverage of fixed income issuers. This helps to provide us with more accurate weighted average carbon intensity (WACI) metrics. However, none of our UK Credit issuers have the necessary Enterprise Value including Cash (EVIC) data for us to calculate our Financed Emissions (please see Appendix C). This means that their contribution to financed emissions cannot be incorporated. The increased contribution of estimated emissions comes from a higher allocation to a non-disclosing company that's on our Climate Watchlist. Both Climate Action 100+ and EOS, our stewardship services provider, are continuing to engage directly with this company to drive better disclosure of its carbon emissions.

**Year-on-year comparison of carbon emissions disclosure rates (by market value)**




**Year-on-year comparison of contributions to total carbon emissions by type of disclosure**






**Note 1** PCAF Score Quality Breakdowns comparability: Reported Emissions correspond to a PCAF Quality Score between 1 and 3, Estimated Emissions correspond to a PCAF Quality Score of 4 and 5.

**Note 2** MSCI One doesn't provide 2020 Reported vs Estimated breakdown, so we have used the historical breakdowns from their previous system.

**Note 3** Totals might differ from 100% due to rounding.

# **METRICS** CONTINUED

## Coverage progress for other asset classes

The wide diversity of asset classes in which the Pension Protection Fund invests can make assessing and reporting on climate-relates risks for our whole portfolio challenging. However, we have seen continued progress across all assets.

This year sees us reporting emissions-based metrics for Public Equity, Corporate Credit (including EM Credit) and UK Credit for the fourth year running, UK Sovereign Debt for the third year, and we have assessed our Emerging Market Sovereign Debt for the second year. Following on from the launch of our Climate Watchlist of companies last year, we have focused especially on encouraging more disclosure from these highest-emitting names in our portfolio.

### EM Sovereign Debt

We have restated the emissions figures for Emerging Market Sovereign Debt, using an updated product and methodology from MSCI. This has had an impact on coverage, which was 97 per cent in 2023 versus 100 per cent using the old methodology in 2022. (However, this is still a year-on-year improvement on the 94 per cent coverage the new methodology would have given in 2022). MSCI covers 100 per cent of the underlying sovereign issuers, however in some cases specific bond instruments might not be covered. Despite good coverage by MSCI, EM Sovereign Debt continues to face significant reporting challenges with data often lagging by two years or more. This results in the carbon footprints for these portfolios often being a year behind that of our corporate-based equity and bond portfolios, which we need to bear in mind when analysing outputs. This is another reason why we do not feel it is appropriate to aggregate our corporate debt and sovereign debt emissions data.

### Private Markets

As mentioned in previous reports, covering emissions for private assets has been a significant challenge. However, we are now starting to see some emissions data for a selection of our private markets funds materialising through the eFront® ESG Data Service project (see page 32). This has been supported by other initiatives, such as the ESG Data Convergence Initiative (EDCI), which has also seen strong participation from General Partners (GPs) recently. eFront® fully captures the EDCI metrics to allow GPs and portfolio companies to report to both frameworks in a standardised way. eFront® is also looking to incorporate GP data disclosed directly to EDCI which will further increase efficiency and coverage. Please see page 18 for progress year on year.

### Private Credit

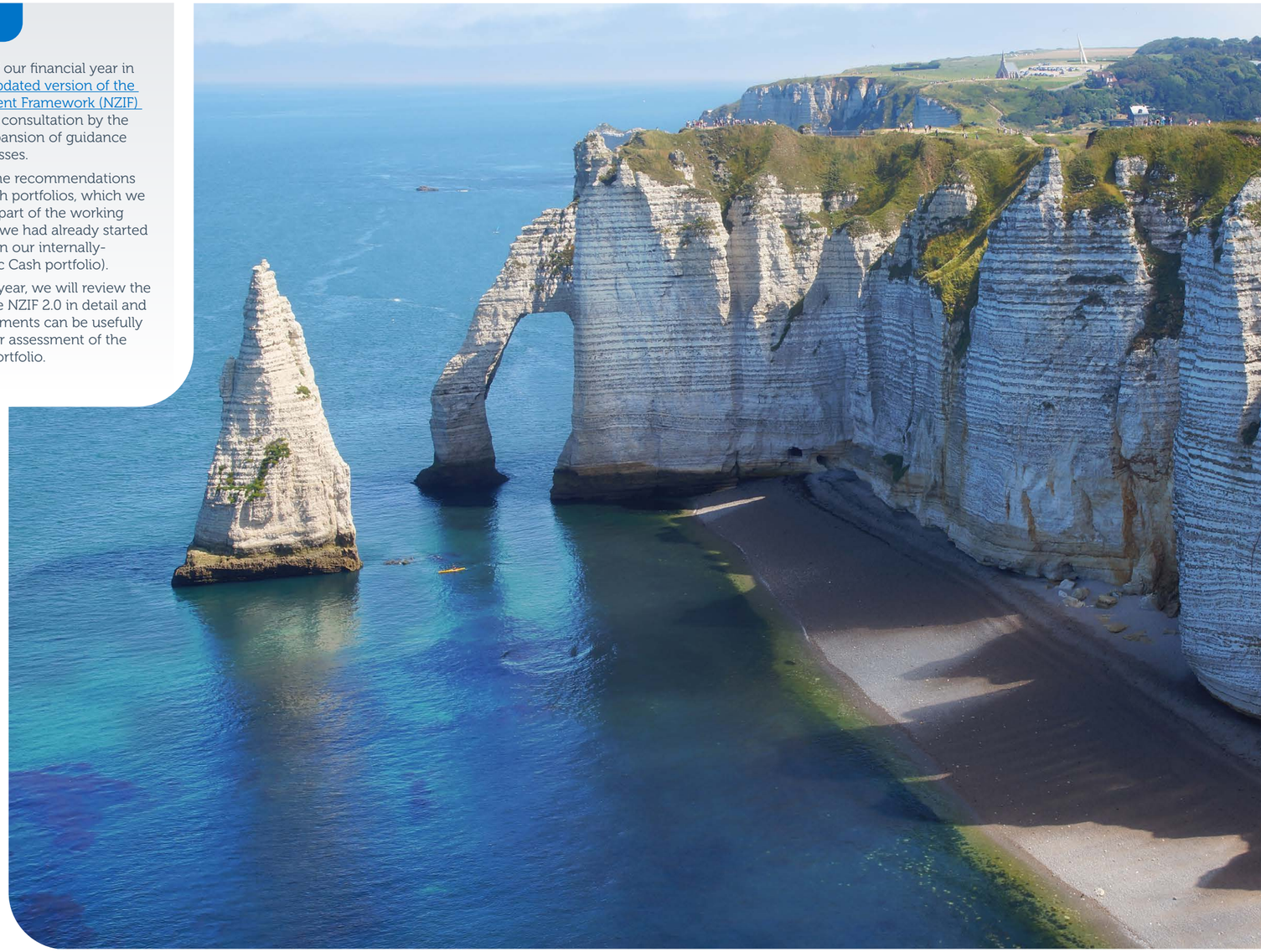
Apart from the asset classes mentioned above, we are now starting to collect carbon and ESG data for our Private Credit assets within the HAIL allocation of our Matching Portfolio, which also includes some Real Assets. Due to its hybrid nature, this book isn't covered by eFront® or our public markets ESG provider. To overcome this challenge, we have liaised directly with our external managers and rolled out an ESG template specifically for Private Credit assets. For more information, please see page 32.

### Derivatives

We have maintained the decision to keep derivatives and short positions out-of-scope of our public markets climate reporting for now, as the tools to assess carbon emissions and climate-related risks for these instruments have not evolved sufficiently.

### Next steps

- At the very end of our financial year in March 2024, an updated version of the Net Zero Investment Framework (NZIF) was published for consultation by the IIGCC with an expansion of guidance for more asset classes.
- This included some recommendations for measuring cash portfolios, which we contributed to as part of the working group (given that we had already started approaching this in our internally-managed Strategic Cash portfolio).
- Over the coming year, we will review the final version of the NZIF 2.0 in detail and consider what elements can be usefully integrated into our assessment of the PPF investment portfolio.



# METRICS CONTINUED

## Absolute carbon emissions

Across countries, industries and companies, the world is not yet seeing significant reductions in carbon emissions. In fact, global emissions are still to peak, despite the positive momentum from companies and governments setting reduction targets. So, we anticipate that the next few years will not show a linear decarbonisation in our portfolio.

Emissions may continue to rise for some metrics in the short term, especially as our portfolio coverage of emissions data continues to increase (as we have seen this year). Paradoxically, backing companies that are looking to reduce their emissions may also increase our exposure to high-impact carbon activities, such as energy production and heavy industry. However, we firmly believe that providing capital to credibly transitioning companies is necessary in order to see real-world decarbonisation at the scale and pace now urgently required.

We continue to measure and report on the total Scope 1 and Scope 2 carbon emissions associated with holdings in public global equity ('Equity'), global investment grade plus emerging market credit ('Credit') and the publicly-traded UK Credit sleeve within the HAIL allocation of our Matching Portfolio ('UK Credit'). Collectively, these listed assets accounts for $12.7 billion, or around one-third of our overall assets under management.

(Please note: We report relative intensities for UK and EM Sovereign Debt portfolios in the next section. However, these assets are excluded from our total financed emissions summary below. This is because we feel comparing country-level absolute emissions alongside corporate emissions cannot be done on a like-for-like basis, and there is a risk of emissions being double counted.)

The total financed emissions in the Equity and Credit portion of our portfolio have increased by 23 per cent over the year. This is mainly because AUM allocated to these assets increased by a third. Specifically, Equity increased by 11 per cent, Credit by 18 per cent and UK Credit by 72 per cent year-on-year. However total financed emissions have still fallen by 55 per cent, from 1.26m $tCO_2e$ to 564,932 $tCO_2e$ since our baseline of December 2020.

We have also continued to report Scope 3 emissions, although we have chosen not to aggregate them with our Scope 1 and 2 emissions, due to the inherent double-counting involved and the fact that Scope 3 emissions are nearly all still estimated. See page 24 for more on this, and Appendix C for more on the formulae used in our emissions calculations.

**Decarbonisation progress for PPF's public markets holdings:**

**-55%**

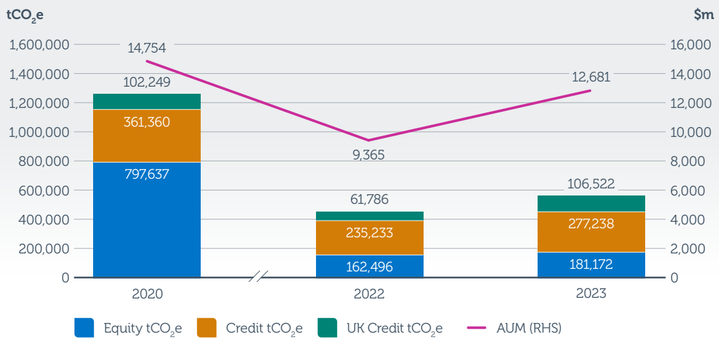
in total financed carbon emissions ($tCO_2e$)

Source: PPF/MSCI Change from December 2020 (baseline) to December 2023

**What do our emissions metrics tell us?**

| Metric | Tells us |
|---|---|
| **Total financed emissions =** Emissions "owned" by our portfolio | What level of greenhouse gas emissions are we financing (in estimated tonnes of $CO_2$ equivalent, $tCO_2e$)? |
| **Financed Carbon emissions =** $tCO_2e$/$million invested | What level of greenhouse gas emissions are we financing per $1 million invested ($tCO_2e$/USD)? |
| **Weighted average carbon intensity (WACI) =** Weighted emissions of the portfolio/$million sales | How carbon intensive are the business models of the companies that we are invested in ($tCO_2e$/USD)? |

**Year-on-year change in our Scope 1+2 total financed emissions for listed equity and credit**





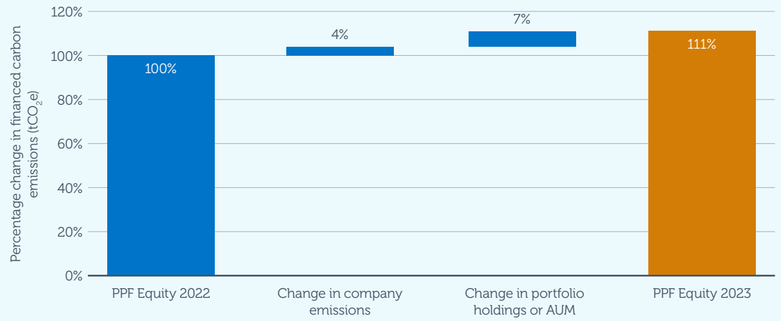

### Reasons for increase in PPF Equity total financed emissions

The total financed Scope 1 and 2 emissions for Equity have increased year on year by 11 per cent. This can be attributed both to existing companies having increased their emissions and new positions added to the portfolio contributing more emissions – see chart below.

Emissions increases from existing holdings mainly came from five names, four of which are being engaged through our Climate Watchlist. We have seen some progress from two of these names during the engagement period. One, a US steel company engaged by one of our external managers, has made progress on developing a framework for science-based target setting for its emissions. The other, a Chinese energy company, made progress on its alignment with TCFD disclosure by conducting climate scenario analysis.

Of the three new holdings that contributed the most to the change in financed carbon emissions, one is on our Climate Watchlist. A second, although outside our Climate Watchlist, is being engaged by our stewardship services provider EOS. We will monitor the remaining company.

**Causes of change in PPF Equity financed carbon emissions between 2022 and 2023 ($tCO_2e$)**






**Our total financed emissions in tonnes for 2023 for Public Equity and Credit holdings**

| | Scope 1+2 emissions (tonnes $CO_2e$) | Scope 3 emissions (tonnes $CO_2e$) | | PPF AUM assessed ($m) | Scope 1+2 carbon data coverage* |
|---|---|---|---|---|---|
| | | Scope 3 – upstream | Scope 3 – downstream | | |
| Equity | 181,172 | 447,385 | 1,086,201 | $2,820 | 98% |
| Credit | 277,238 | 467,087 | 983,395 | $7,533 | 97% |
| UK Credit | 106,522 | 185,475 | 221,106 | $2,328 | 96% |
| **Total financed emissions** | **564,932** | **1,099,947** | **2,290,702** | **$12,681** | 97% |

* This metric shows the percentage coverage of holdings that have either reported or estimated emissions data and an available figure for Enterprise Value including Cash (EVIC). EVIC is essential for apportioning absolute financed emissions, but is not always available for fixed income holdings. Certain information ©2024 MSCI ESG Research LLC. Reproduced by permission; no further distribution.

### Why we measure 'causes of change' in our Equity total financed emissions

As the chart above shows, for our Equity portfolio, we assess not only how much the financed carbon emissions associated with our portfolio have changed year on year but the cause for the change.

We divide this into two groups: change that has happened through companies reducing/increasing their emissions; and change that has come from altering our portfolio holdings.

This ensures that reductions or increases in emissions are fully accounted for (so we cannot, say, claim emissions reductions that don't actually exist in the real world). Equally important, we see if emissions reductions are actually coming from changed behaviour in the outside world.

# METRICS CONTINUED

## Relative carbon intensity by strategy

### Why we measure relative carbon intensity

As well as measuring the overall total carbon being produced by our investment portfolio – and how this is falling or rising over time – we look to assess the specific carbon exposure of individual asset classes. Financed carbon emissions tell us how much carbon is being generated per $1mn invested in an asset class (or company or bond etc). This allows portfolios of different sizes to be compared on a like-for-like basis.

'Weighted average carbon intensity' is used to monitor our exposure to carbon-intensive companies and the 'carbon efficiency' of those companies. It is measured by calculating carbon emissions on a company's revenues, then weighting the company by the size of investment in it. The more/less carbon generated per $1m of revenue, the more carbon intensive/carbon efficient the business is.

We continue to use a number of key normalised carbon metrics to assess the relative emissions-based intensity of our portfolios. This gives us a fuller picture of our emissions and allows us to measure emissions from different asset classes and sizes of portfolio on a like-for-like basis. See Appendix C for an explanation of each of these metrics.

Alongside corporate emissions from equity and debt holdings, we are able to include emissions from UK and EM Sovereign Debt in our relative carbon intensities analysis. This means we are now measuring $24 billion or 57 per cent of the total PPF portfolio in this way.

## Equity portfolio

**Carbon intensity metrics**

In Public Equity, the total financed carbon Scope 1 and 2 emissions associated with our aggregate public equity holdings increased by 11 per cent from 2022 to 2023, as reported in the previous section. When normalising the total financed carbon emissions by the total amount invested, the financed carbon emissions invested also increased by 16 per cent over the same period. This is due to an increased allocation to one of our active portfolios that currently contributes around two-thirds of the financed emissions in our Equity book.

In contrast to the financed emissions metrics, the weighted average carbon intensity (WACI) for the equity aggregates decreased year-on-year by 14 per cent, with all public equity portfolios seeing a lower WACI year-on-year. This indicates that our equity holdings have, in aggregate, become less carbon intensive per unit of revenue generated (even though the carbon emissions have increased). However, the Equity book still has higher relative emission intensity than its benchmark.

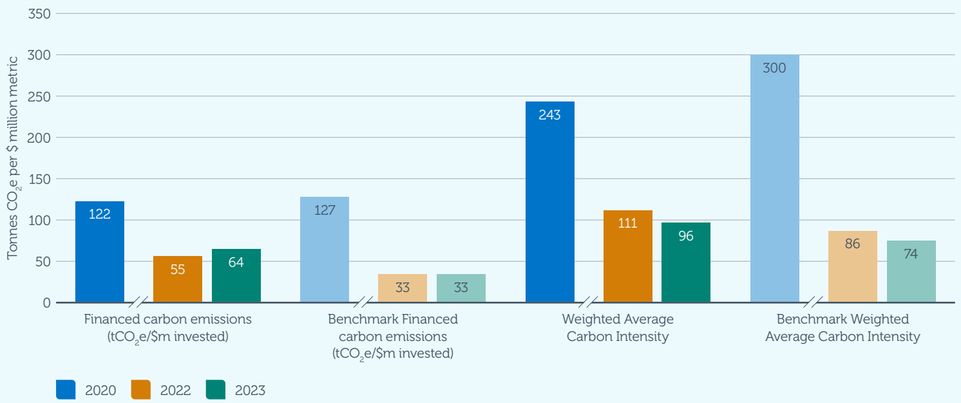
This is mainly due to one active portfolio, which is benchmark-agnostic and therefore more likely to have 'off-benchmark' positions.

Since our baseline year of 2020, there is still an overall decline of 77 per cent in the total financed emissions, as the graph on the previous page shows, and a near-halving of the financed carbon emissions per $m. A similar downward trend can be seen in the WACI for our equity holdings, which is now 60 per cent lower than in 2020.

**ACTION**

Four of the top five emitters in our Equity portfolio are on our Climate Watchlist, and are therefore subject to a high level of scrutiny and engagement. Engagement with the other top-five emitter is being conducted by EOS, our stewardship services provider.

**PPF Equity carbon metrics**

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See Appendix B for Equity benchmark. Percentages stated in text may be inconsistent with charts due to rounding.

## Credit portfolio

**Carbon intensity metrics**

In Corporate Credit, we saw an 18 per cent increase in the total financed carbon emissions for the aggregated portfolio from 2022 to 2023, as the graph on the previous page shows. This was due to an increase in the amount invested in Credit, as we increased our allocation to Strategic Cash and Short Duration Credit during the year.

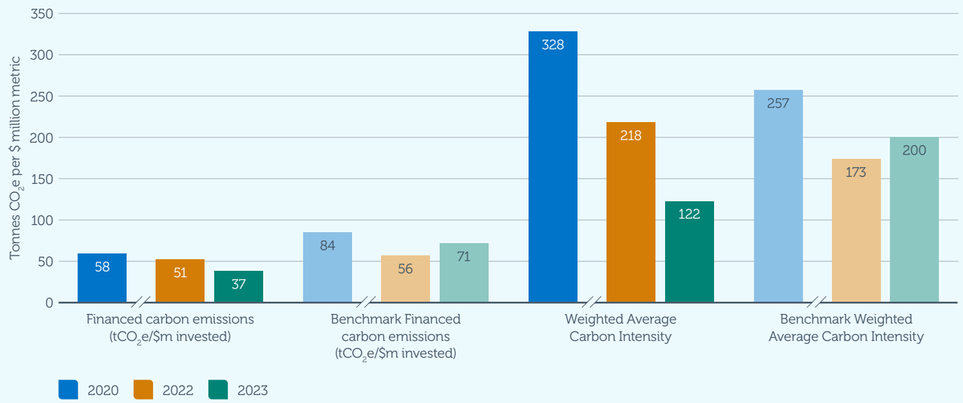
However, normalised financed emissions per $m invested decreased by 27 per cent, predominantly due to the Strategic Cash and Sterling Short Duration Credit strategies having a lower exposure to high-carbon assets. The WACI for the aggregated credit portfolio also decreased by 44 per cent year-on-year, in contrast to the Credit benchmark's WACI, which increased by 16 per cent. The decline was driven in part by one of the highest-emitting holdings reducing its carbon intensity by sales, alongside a decreased allocation to this name. All of our credit portfolios either have stable or improved WACI year on year apart from two portfolios that account for 12 per cent of the total market value held in credit.

There is an overall decline of 23 per cent in the total financed emissions from Credit and 36 per cent decline in the financed carbon emissions per $m since our baseline year of 2020. Similar to the Equity book, the WACI for Credit is now 63 per cent lower than our baseline year of 2020. To sum up, the relative analysis of the carbon footprint of the Credit portfolio shows that there has been progress in relative carbon efficiency both year on year and since we began to measure our portfolio's emissions data in 2020.

**ACTION**

The most carbon-intensive name in this portfolio, an Emerging Markets Utilities company, is on our Climate Watchlist and is being engaged through Climate Action 100+. There was some engagement progress this year, with the company setting a medium-term target to cover its Scope 1 and 2 emissions.

**PPF Credit carbon metrics**

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See Appendix B for Credit benchmark.

# METRICS CONTINUED

## UK Credit portfolio

### Carbon intensity metrics

Our UK Credit portfolio saw an increase across all relative carbon intensity metrics this year. We saw an increase of 72 per cent in the total financed carbon emissions for UK Credit from 2022 to 2023, as the graph on page 21 shows, and an increase of 31 per cent in financed emissions per $m invested, as the graph below shows. The WACI for our UK Credit holdings increased by 7 per cent from 2022 to 2023. Despite the year-on-year rise in carbon intensity in the UK Credit portfolio, the normalised financed emissions per $m invested and the WACI metrics are still 10 per cent and 16 per cent lower than our 2020 baseline.

One UK Credit holding that's a high contributor to financed emissions is a UK subsidiary of CK Hutchison, the Hong Kong-based conglomerate. The UK subsidiary held in our UK Credit portfolio is a water company (and therefore not as high an emitter itself). However, because it doesn't have sufficient emissions disclosure for the subsidiary's activities, data has been mapped back to its parent, whose emissions are high enough to feature on our Climate Watchlist. This has inflated emissions figures for our UK Credit Portfolio. EOS, our stewardship services provider, has been engaging with CK Hutchison for a few years on climate change risk management and setting Net Zero goals, which is now yielding results – see the profile on page 17.

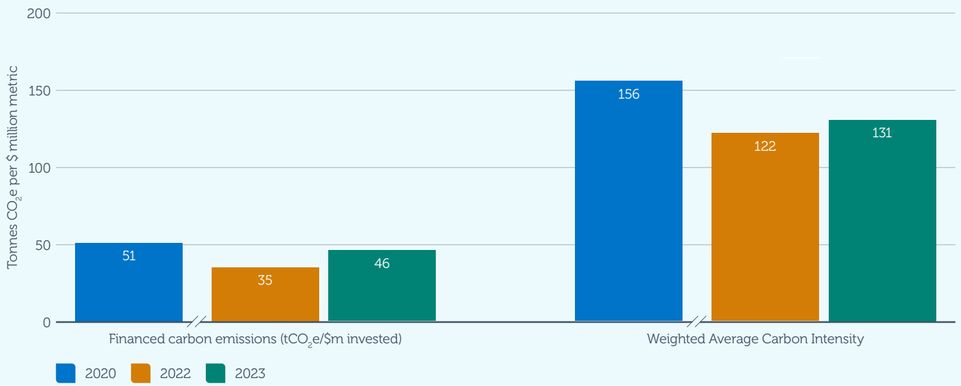
**ACTION**

Four of the top five emitters in this portfolio are included in our Climate Watchlist and the remaining one is engaged by both EOS and the Climate Action 100+ initiative.

### Recent addition to our UK Credit portfolio

During the year, we added a position to our UK Credit portfolio in a Multi-Utilities company. Although this has contributed to the portfolio's higher carbon footprint, our portfolio managers also see opportunities in the name. First, the company operates in multiple sectors and geographic markets, providing useful diversification to a sterling-based investment portfolio. As a significant portion of its operations are regulated utilities, it is also a relatively defensive holding, providing a degree of stability and predictability to cashflows. Finally, as the company is actively transitioning its power generation mix towards renewable sources like wind and solar, our portfolio managers feel it is well positioned for the global shift towards clean energy.

**PPF UK Credit carbon metrics**





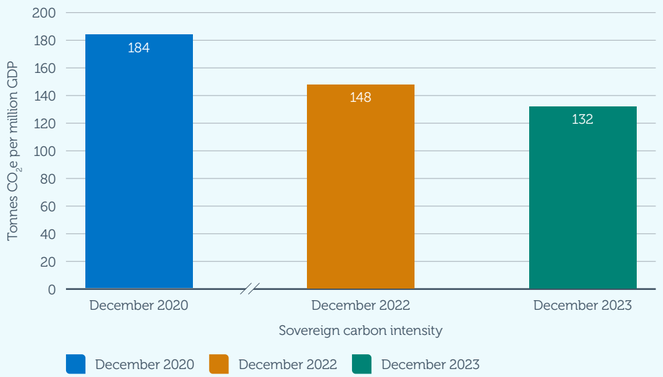

## UK Sovereign portfolio

### Carbon intensity

The carbon intensity of UK Gilts in our LDI portfolio has decreased year on year by 11 per cent. This was due to higher UK GDP offsetting emissions so intensity was reduced. This reduction marks a continued decline in intensity and emissions since our baseline year of 2020.

This year, we have restated the carbon intensity of UK Sovereign Debt for the past three years, as we used a different report produced by MSCI – see calculation methodology in Appendix C.

**PPF UK Sovereign holdings: carbon intensity estimate**





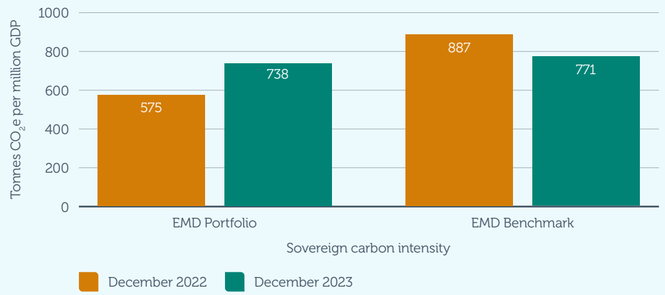

## Emerging Market Sovereigns

### Carbon intensity

We have also restated the emissions intensity for Emerging Market Sovereign Debt, using the same updated report and methodology from MSCI as for the UK Sovereign Debt. This shows a 28 per cent increase in carbon intensity, which is attributable to the reduced allocation in the EM portfolio to US Treasuries that were held last year to help hedge risk.

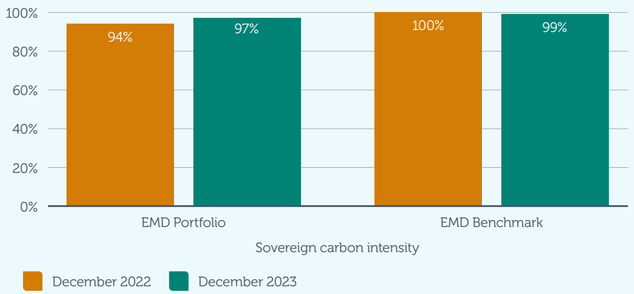
Last year, we reported 100 per cent coverage of emissions data for EM sovereigns. This year, with the new methodology, that has reduced slightly for both 2022 and 2023. One challenge this year was the inclusion of some EU bonds – again for risk-hedging and liquidity purposes – which makes emissions disclosure more difficult as our data provider doesn't provide emissions for an aggregated entity like the EU.

**PPF EM Sovereign holdings: carbon intensity estimate**






**EM Sovereign Coverage**



# **METRICS** CONTINUED

## Scope 3 emissions

For the second year, we are reporting Scope 3 emissions for our Public Markets portfolios. Again, we have opted to focus our analysis on relative-only metrics as we feel absolute carbon emissions might be misleading as Scope 3 emissions are almost entirely estimated, plus there is considerable double-counting across the scopes once Scope 3 is incorporated.

No Quality Score breakdowns for Scope 3 emissions from the Partnership for Carbon Accounting Financials (PCAF) have been included this year as the vast majority of Scope 3 data are estimates only.

### Why we measure Scope 3 emissions

Scope 3 emissions are greenhouse gas emissions that are not directly owned or controlled by the companies held in our portfolios but occur through their business activities, or 'value chain'. 'Upstream' Scope 3 emissions come from the production of a business's products or services, while 'downstream' Scope 3 emissions come from their use and disposal.

Scope 3 emissions often account for the largest (but hardest to measure) element of a business's emissions so they cannot be ignored when assessing our portfolio's climate impact. Attempting to measure them can also help to identify emissions 'hotspots' within a company's value chain, which can inform our engagement activity with them. We are also focused on measuring our own Scope 3 emissions in order to manage and reduce the climate impact of the PPF's own operations.

### Equity

This year saw an increase in both Scope 3 upstream and downstream relative sales intensity (see Appendix C for definition) for the Equity portfolio. Almost all the difference came from new positions and particularly from one name, a manufacturer of electric vehicles. The name is still an early-stage company with only $55 million in revenues (at the time of emissions calculation) and a low Enterprise Value, both of which have caused its intensity to act as an outlier. If we ignored this name, there would actually be decrease in Scope 3 sales intensity.

This situation supports our concern that Scope 3 emissions are all mostly estimated, and the outputs should be observed with caution.

### Credit

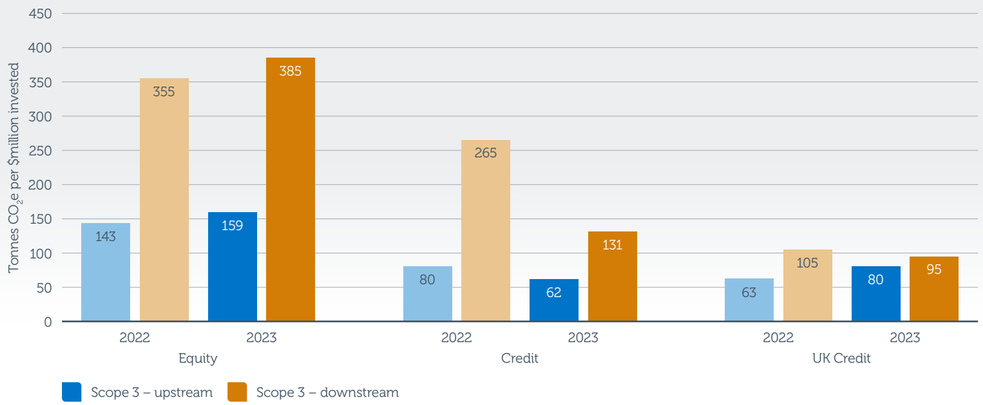
Our Credit portfolio saw a decrease in both upstream and downstream Scope 3 emissions' intensity.

This was due to a strategic asset allocation decision to increase exposure to Internal Cash and Short Duration Sterling books. Both books have substantial exposure to Financials, which are still the largest contributor to both types of Scope 3 emissions' intensity but decreased their contribution in absolute terms, driving down carbon intensity. Looking at other sectors, Energy contributed to the decrease in downstream Scope 3 emissions' intensity and the Utilities contributed to the decrease in upstream emissions' intensity.

### UK Credit

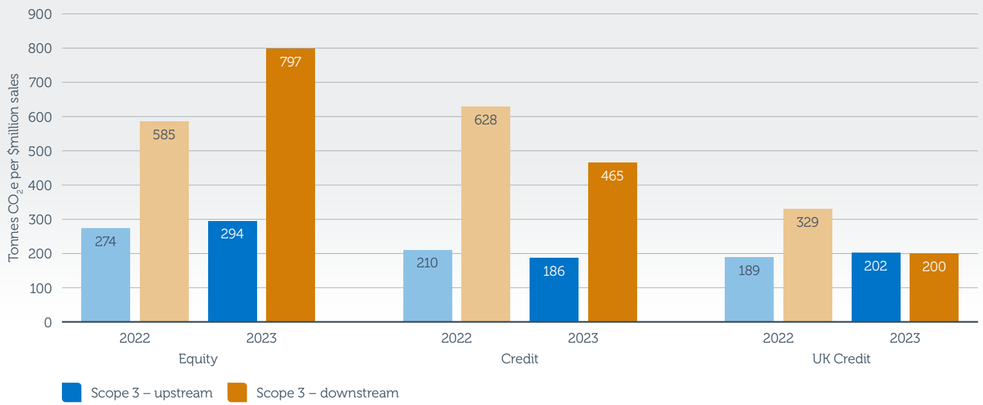
Upstream sales intensity of the UK Credit book increased by 7 per cent while the downstream sales intensity declined by 39 per cent. The decline of the downstream intensity is coming from existing holdings as most of them have reduced Scope 3 downstream emissions' intensity. New positions have, on average, higher sales downstream intensity than sold positions.

**PPF Scope 3 emissions – financed carbon emissions ($tCO_2e$/$m invested)**






**PPF Scope 3 emissions – weighted average carbon intensity ($tCO_2e$/$m sales)**






# **METRICS** CONTINUED

## High-carbon impact sectors

### Why we focus on high carbon sectors

High-carbon emitting sectors such as Utilities, Materials and Energy present the biggest climate-related exposures in our portfolio. So, we pay special attention to our allocation to them – and how that is changing year-on-year. We also recognise that these sectors offer the greatest potential for reducing the world's carbon emissions by transitioning. So, this scrutiny of high-carbon sectors helps us continually prioritise where engagement might have the greatest effect.

In line with TCFD recommendations, we pay particular attention to our investment portfolio's exposure to sectors that have a higher contribution to global carbon emissions, specifically Utilities, Materials and Energy.

**Equity:** High-carbon impact sectors contributed more to overall emissions in our Equity portfolios this year than last year (73 per cent vs. 66 per cent).

This increase is mainly due to increased contribution from the Materials sector, whose largest contribution came from an increased allocation to a high-emitting global steel company. The company is on our Climate Watchlist and is being engaged through Climate Action 100+.

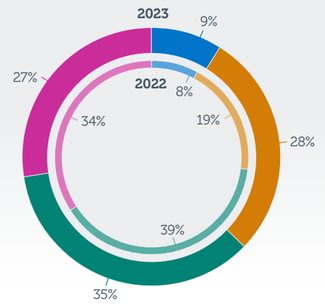
**Credit:** High-carbon sectors contributed less to Credit this year (45 per cent) than last year (58 per cent). This is mainly due to an increased allocation to portfolios with exposure to lower-emitting sectors.

**UK Credit:** Within our UK Credit portfolio, the exposure to high-carbon impact sectors has increased from 37 per cent to 44 per cent. This is mainly due to the addition of a global utilities company, profiled on page 23, that is being engaged both by our stewardship services provider EOS and Climate Action 100+.

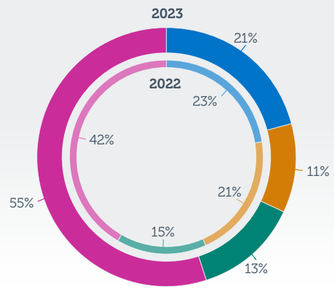
The company has a quantitative long-term Net Zero ambition that covers at least 95 per cent of its Scope 1 and 2 emissions, and the most relevant Scope 3 categories. It has also set a short-term greenhouse gas reduction target. Both targets fully meet Climate Action 100+'s criteria. The name partially meets all other Climate Action 100+ criteria.

## Contribution to overall portfolio carbon emissions by high-impact sectors

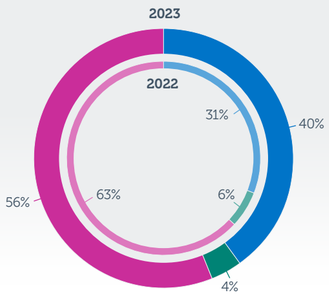
### Equity




### Credit




### UK Credit

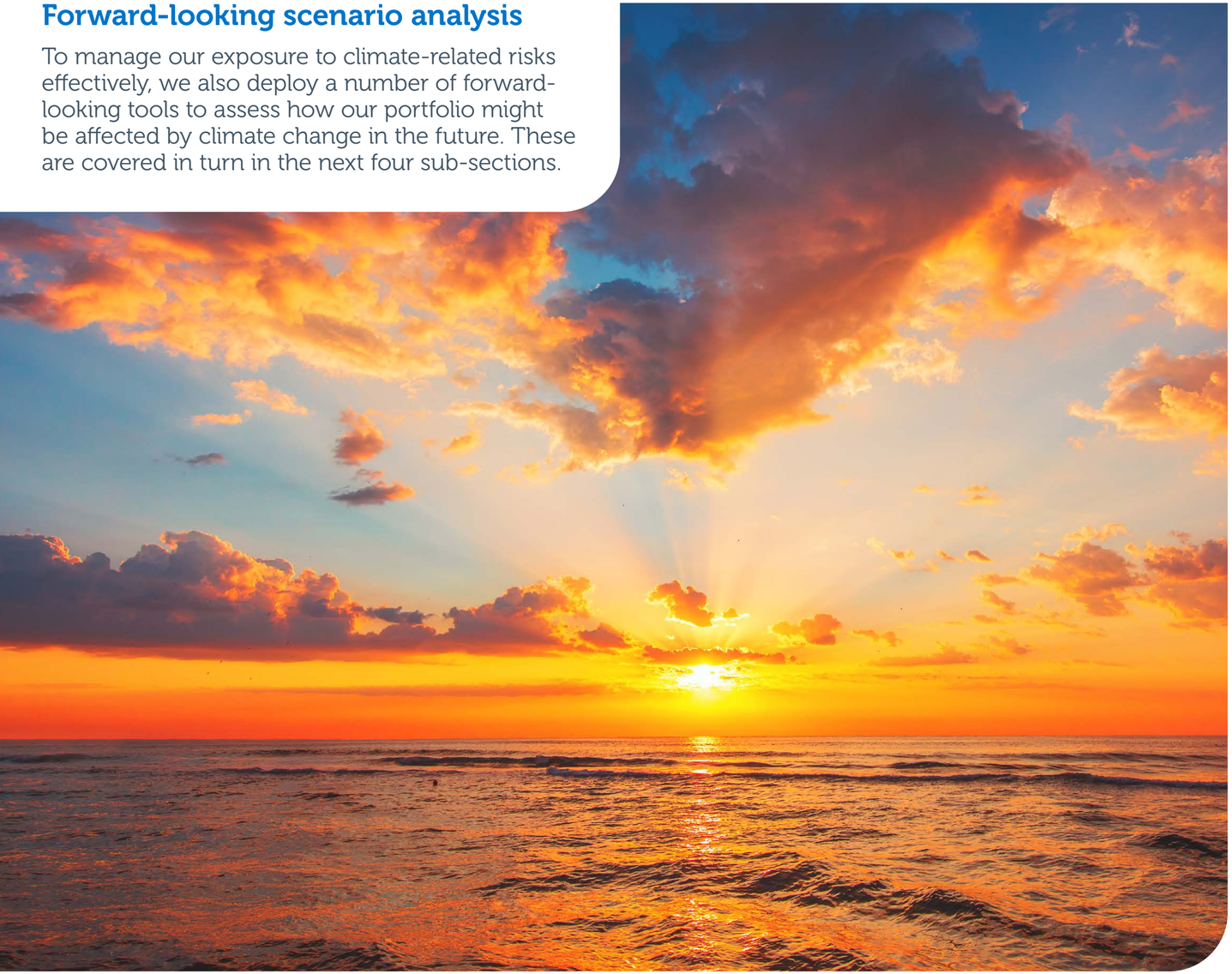



Utilities | Materials | Energy | Other

# **METRICS** CONTINUED

## Forward-looking scenario analysis

To manage our exposure to climate-related risks effectively, we also deploy a number of forward-looking tools to assess how our portfolio might be affected by climate change in the future. These are covered in turn in the next four sub-sections.



1

## MSCI Climate Value-at-Risk

As an asset owner, it is important to stress-test our portfolio to see how its value might be affected in a range of scenarios and circumstances. To explore the impact of climate on our portfolio we extensively analyse one aggregate metric: Climate Value-at-Risk ('Climate VaR' or 'CVaR').

Climate VaR comprises Transition VaR (comprising Policy VaR and Technology Opportunities) and Physical Risk, all of which we extrapolate in our analysis. As detailed on page 13, MSCI has introduced some enhancements to its CVaR models to improve accuracy and reflect more realistic and plausible scenarios. The model updates mean that year-on-year analysis is no longer directly comparable. We chose to conduct our analysis annually to reflect portfolio changes, however it is more common industry practice to conduct climate scenario analysis every three years.

When stress-testing the Climate VaR of our portfolios (see overleaf), we look at five potential climate transition scenarios that align with those developed by the Network for Greening the Financial System (NGFS), as described earlier. We choose to split out orderly and disorderly scenarios into a 1.5°C and a 2°C scenario to acknowledge the significant differences in these two temperature outcomes.

### Transition VaR

**Policy VaR** – The highest Climate VaR under a disorderly transition to a low-carbon global economy is mainly explained by the abrupt need for a higher and faster reduction in emissions. Companies would be required to achieve a bigger emission reduction and pay a higher assumed carbon price, face higher electricity costs, and absorb higher costs from their value chain, culminating in a higher Policy VaR. (Conversely a failed transition results in low Climate VaR because it assumes no/minimal policy action is taken so companies would not be required to decarbonise to the same degree. Plus, companies would not be forced to move into renewable energy as quickly or at all.)

**Technology Opportunities** – As well as assessing risks that climate change poses to the value of our investments, we look ahead to see how opportunities in a Net Zero world might benefit our portfolio. The VaR model principally assumes that, as the world moves towards Net Zero, companies with low-carbon technology patents, for example, are expected to see positive performance as the demand for renewable energy/low-carbon technologies increases. When calculating Transition VaR, the value gained from these opportunities can offset the value lost through Policy VaR.

### Physical VaR

Physical VaR is used to assess the potential impact of the physical effects of climate change on the value of portfolio assets. The location database used by the MSCI Climate VaR tool now maps to approximately 1.1 million locations (compared to 270,000 last year). The tool covers five acute risks and five chronic risks. Acute hazards are catastrophic events such as coastal flooding, tropical cyclones, fluvial flooding, low river flow, and wildfire. Chronic hazards are extreme heat, extreme cold, precipitation, extreme snowfall, and extreme wind.

Within our analysis, we have selected the 'Aggressive' physical risk scenario throughout to assess the resilience of our portfolios, so we can see the largest potential impact on our investments.

### Acknowledging limitations

We acknowledge that there are limitations with the currently available climate scenarios and value-at-risk methodologies, that could be under-representing the risk that climate change presents to financial assets. Recent studies have highlighted that existing scenarios do not factor in tipping points and feedback loops. In response, MSCI has made an initial effort this year to address the lack of integration between physical and transition risks by introducing scenario-specific physical risks.

**Climate Value-at-Risk**

| Transition VaR | Physical VaR |
|---|---|
| The business-related risks/opportunities of transitioning to a low-carbon economy:<br>**Policy VaR**<br>**Technology Opportunities** | The financial risks that arise from physical impact of climate change such as extreme weather, drought and rising sea levels |

# METRICS CONTINUED

## Climate Value-at-Risk 2023 by asset class

### Why we measure Climate Value-at-Risk

Assets, companies and industries can be affected by climate change, and the ways the world looks to respond to it, in very different ways. Climate Value-at-Risk (VaR) offers a forward-looking estimate of the loss or gain an asset or portfolio could experience under different climate scenarios – from an orderly transition to keep global warming within 1.5°C to a 'Too Little, Too Late' scenario where climate action is delayed and divergent. This allows us to assess – and take action to manage – the potential costs and/or profits that our portfolio could face in the best-case to worst-case scenario.

As mentioned on page 13, our CVaR data provider MSCI has revised all the scenarios to reflect updates in the scenarios developed by the Network for Greening the Financial System (NGFS). Therefore, results are not directly comparable with last year's report. However, it is still evident that the 1.5°C Disorderly scenario continues to present the greatest Climate Value-at-Risk for all three of our analysed asset classes, due to the highest transition risks.

### Physical risk

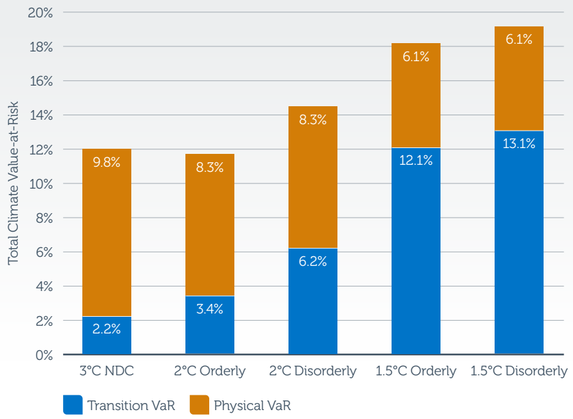
The physical risk data used by the MSCI Climate VaR Tool has been updated quite recently and changed dramatically since last year and we are not in a position to provide a detailed analysis on it. We will aim to provide a comprehensive analysis in future years.

### Equity

The impact from a 1.5°C Disorderly scenario is most significant for Equity, with a Transition VaR of over 13 per cent and Physical VaR being just over 6 per cent. Whilst the Transition VaR is lower than last year (when it was 17 per cent), it suggests our Equity portfolio is still not as resilient to scenarios factoring in delayed but forceful action to keep global warming within Paris Agreement goals.

We are engaging with our Climate Watchlist Companies (CWCs), either directly or indirectly, to push them to consider climate change risks more widely. For example, Energy is the most exposed sector and the top contributor within the Energy sector is a CWC name for all Policy VaR scenarios. The Capital Goods sector contributed the most to Technology Opportunities.

**Equity Climate VaR**



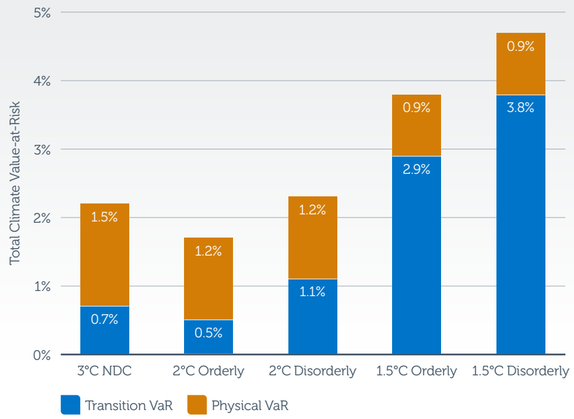



### Credit

For another year, our global Credit portfolios registered a lower CVaR than our Equity portfolio, ranging from two to five per cent under our five scenarios when aggregating both Transition and Physical VaR. Although the results are not directly comparable with last year due to changes in methodology, we note that this year's risks are still lower.

Holdings in the Transportation and Utilities sectors are most exposed to Policy VaR across all five scenarios (as was also the case last year). This is due to Transportation being highly sensitive to transition risks around electrification and a move away from fossil fuel energy sources, and to Utilities transitioning to renewable energy sources. However, both sectors can offer positive exposure to Technology Opportunities – Utilities contribute the most, with the chief beneficiary being one of our CWC names.

**Credit Climate VaR**



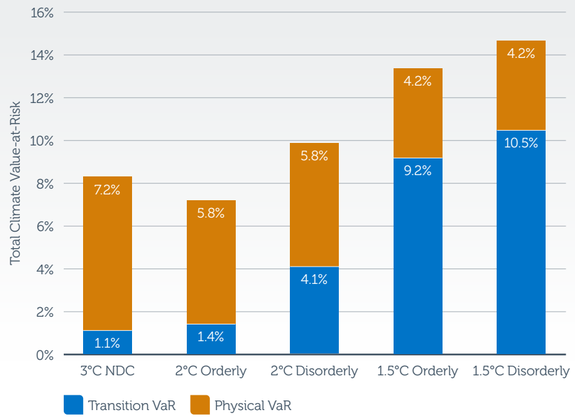



### UK Credit

Even taking account changes to the CVaR models this year, we have still clearly seen Physical VaR reducing year-on-year across all scenarios for our UK Credit portfolio. The Capital Goods sector contributed most to Physical VaR, particularly due to one name on our Climate Watchlist which saw very good progress following engagement with our stewardship provider this year.

The Capital Goods sector, and the name above in particular, are primarily responsible for the Policy VaR element of Transition VaR in our UK Credit portfolio. Utilities were the chief beneficiary in UK Credit from Technology Opportunities that arise from the move to a Net Zero economy.

**UK Credit Climate VaR**



# METRICS CONTINUED

## 2

## The Transition Pathway Initiative

The Transition Pathway Initiative (TPI) is a global, asset owner-led initiative that assesses companies' preparedness for the transition to a low-carbon economy using two main assessments: a quality assessment of a company's carbon management practices and a carbon performance assessment.

More than 1,000 companies in 49 countries, with an estimated market capitalisation of $10 trillion, are now being assessed by TPI[1]. However, the overall TPI coverage of companies held by the PPF is still low, which makes the analysis less meaningful for us at the portfolio level (and, therefore, for our engagement strategy). Therefore, this year, we have chosen to focus TPI analysis on our Climate Watchlist of 87 companies responsible for the majority of carbon emissions in our portfolio.

### TPI Management Quality assessment for Climate Watchlist Companies

The Transition Pathway Initiative's Management Quality (TPIMQ) Assessment seeks to evaluate and track the quality of companies' governance/management of their greenhouse gas emissions and of risks and opportunities related to the low-carbon transition.

Most of our CWCs maintained the same TPIMQ Score as last year (57 per cent or 50 names), of which 28 have a high score of either 4/4* and 22 have a lower score. Eight names (9 per cent) improved their score, whilst seven (8 per cent) saw their score fall.

A further 14 names are newly covered by the TPIMQ and have a score of either 3 or 4. Only eight companies in our Climate Watchlist have no TPIMQ coverage.

As the bar-chart below shows, the majority of CWCs in our portfolio have a TPIMQ score of 3 or better, indicating that governance of GHG emissions and transition risks is good. Last year, four names had a score of 2 or below: this year, only one name scored this low. The company in question, a multinational conglomerate, has publicly criticised ESG and climate efforts. However, after our stewardship provider engaged with them, they are planning to publish climate reporting in accordance with the CSRD, climate disclosure rules in California and SEC climate rule.

The company's coal phase-out plan remains unchanged, however our stewardship services provider EOS has asked for an earlier phase-out than 2049.

### TPI Carbon Performance assessment for Climate Watchlist Companies

The TPI Carbon Performance (TPICP) Assessment looks to compare a company's emissions pathway against different climate scenarios consistent with the Paris Agreement.

Close to half the names on our Climate Watchlist (39 or 45 per cent) maintained the same TPICP Assessment as last year, of which 25 have a good assessment of 'Paris/National Pledges' or '2 Degrees and below' and 14 are 'Not aligned'.

Ten names improved their assessment whilst only one name received a worse assessment than last year. Three names have been newly assessed.

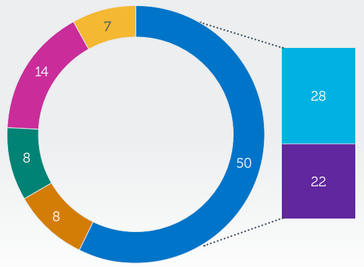
However, a substantial 39 per cent (36) of CWCs are still not assessed by TPI for their carbon performance. We see a lower level of coverage for the TPI Carbon Performance score than for the Management Quality score because it requires historical reported year-on-year emissions to measure the company's alignment.

The name with the deteriorated climate performance assessment, a French Energy company, dropped from '1.5 Degrees Aligned' to 'National Pledges'.

This is most likely because TPI did not have enough public information to make an assessment. On the positive side, the company fully meets three Climate Action 100+ indicators and partially meets the others.

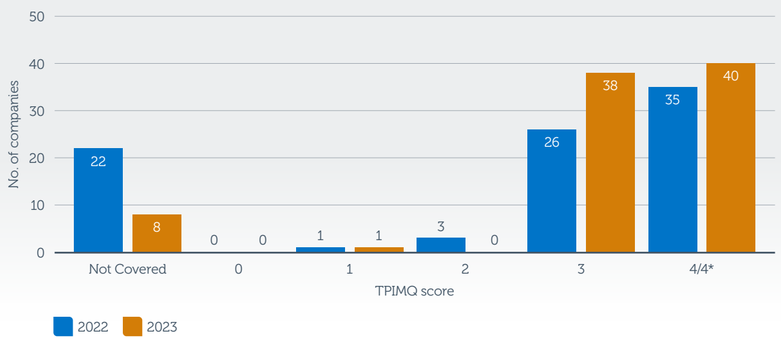
Overall, more companies on our Climate Watchlist are aligned with a 'Paris or National Pledges' or '2 Degrees or below' pathway this year than last – see below. The number of names that are not aligned or not assessed has fallen, although still high. However, we would hope the number of companies being assessed/providing disclosure will continue to improve as companies are able to provide more historical reported emissions.

**TPIMQ score progress for our Climate Watchlist Companies 2022-2023**




Source: TPI/PPF

**Our Climate Watchlist Companies by their TPIMQ score**




Source: PPF/TPI.

**TPIMQ Scores:**

0 – Unaware of (or not Acknowledging) Climate Change as a Business Issue;

1 – Acknowledging Climate Change as a Business Issue;

2 – Building Capacity;

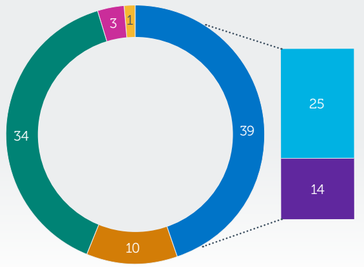
3 – Integrated into Operational Decision-making;

4 – Strategic Assessment;

4* – Companies have scored Yes on every MQ indicator.

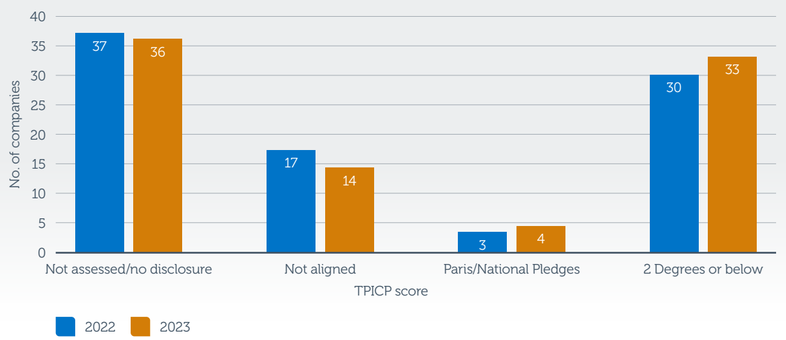
**Please note the TPI Management Quality and Carbon Performance Methodology was updated to version 5.0 in November 2023 and will be applied from next year's PPF Climate Change Report.**

**TPICP score progress for our Climate Watchlist Companies 2022–2023**




Source: PPF/TPI

**Our Climate Watchlist Companies by their TPICP score**




Source: PPF/TPI

**What the TPI Climate Performance (TPICP) scores mean:**

**Not Aligned:** Not Aligned with the goals of the Paris Agreement.

**Paris/National Pledges:** Consistent with the global aggregate of emissions reductions pledged by countries up to at least mid-2020, depending on the sector. According to the IEA, this aggregate is currently insufficient to put the world on a path to limit warming to 2°C, even if it will constitute a departure from a business-as-usual trend.

This scenario is consistent with a carbon budget that limits the global mean temperature rise to 2.6°C by 2100 with a 50% probability.

**2 Degrees or below:** This aggregates two TPICP scenarios:

**1.5 Degrees scenario:** Consistent with the overall aim of the Paris Agreement to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels".

This scenario is consistent with a carbon budget that limits the global mean temperature rise to 1.5°C with a 50% probability.

**Below 2 Degrees scenario:** Also consistent with the overall aim of the Paris Agreement to limit warming, albeit at the middle of the range of ambition. This scenario is consistent with a carbon budget that limits the global mean temperature rise to 1.65°C with a 50% probability.

1 Source: https://www.transitionpathwayinitiative.org/.

## METRICS CONTINUED

# Portfolio and asset alignment metrics

3

## The Science-Based Targets initiative (SBTi)

The Science-Based Targets initiative (SBTi) aims to provide companies with a clearly-defined path to reduce emissions in line with the Paris Agreement on climate change by setting ambitious emissions reduction targets based on rigorous scientific assessment.

We view a commitment to setting an SBTi target or SBTi-approved target as a key indicator for evaluating a company's ambitions to reduce their carbon emissions. The initiative has been instrumental in assessing alignment with the Paris Agreement for many of our portfolio companies.

This year, we continue using the dataset within the MSCI ESG platform to analyse our portfolio exposure to companies that have either formally committed to SBTi targets or had their targets approved by the initiative.

### Removal of science-based target commitments

This year has seen a number of companies remove their commitment to SBTi targets. In some cases, this is because companies have taken too long to develop their targets, and SBTi has a policy to remove a commitment if companies do not develop and submit a target within 24 months. In others, it is because companies do not agree with SBTi methodologies or that the SBTi methodologies underwent a review.

Our external stewardship services provider EOS takes SBTi targets into account and will consider engaging with companies if commitments to SBTi targets have been removed. The aim is to understand the rationale to remove a target and encourage companies to revisit the benefits of a science-based approach.

However, we do acknowledge that, for some sectors, there are not clear means of adopting SBTi-approved approaches so companies might seek other science-based approaches to reach Net Zero/align with the Paris Agreement.

### Progress on SBTi coverage

The percentage of companies with approved SBTi targets (rather than simply committing to targets) increased over the year for both our UK Credit and Equity portfolios. This can partly be attributed to the ramp-up in validation processes that SBTi undertook this year. Looking at each of our investment books, progress on SBTi adoption can be summarised as follows:

### Equity

Overall, the Equity portfolio has a slightly higher exposure to companies with 'Approved' or 'Committed' SBTi targets than last year. There are a small number of companies that have removed their targets, among them some large-cap, well-known companies, for the reasons detailed above.

### Credit

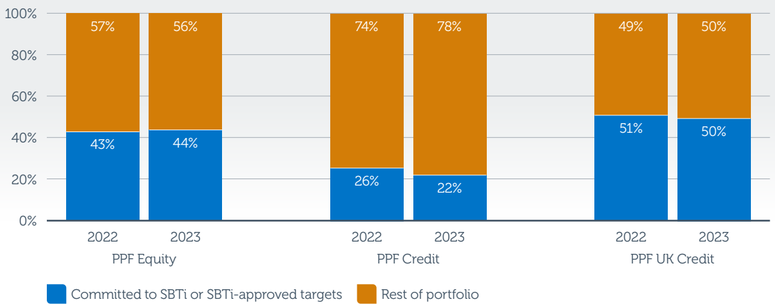
Our Credit portfolio has a slightly lower exposure to companies with 'Approved' or 'Committed' SBTi targets than last year. This is more due to changes in portfolio allocation than companies dropping their targets. In particular, there is a higher exposure to Financials, which have been waiting for their SBTi framework to be completed.

### UK Credit

Progress on SBTi targets among our UK Credit holdings has been relatively stable year-on-year. Only one name in the book, a European financial institution, dropped its target from last year. However, the company has received a good TPIMQ Score of 3 after recently being added to the TPI dataset, so we will review its progress next year.

One further name within our UK Credit book, a Japanese rail company, has made a commitment to an SBTi Target in the past year.

**Percentage of portfolio committed to or using SBTi-approved targets (by market value)**



# METRICS CONTINUED

## 4

## Portfolio 'Paris Agreement' alignment

### Why we assess our portfolio's alignment with the Paris Agreement

We are committed to doing all we can to align our investment portfolio with the Paris Agreement on climate, which seeks to keep average global warming within 2°C (and ideally close to 1.5°C) of pre-industrial levels. By analysing our portfolio's carbon emissions using tools such as Implied Temperature Rise (see page 31) we can take steps to identify which of our assets are on course to keep their own effective climate impact within 1.5°C/2°C and which assets are lagging.

This is important, first, to enable us do what we can to help keep global warming within internationally-agreed levels. But, we also recognise that assets aligned, or on course to being aligned, with the Paris goals are likely to be more financially resilient in the face of future action by governments to address climate change.

> "We remain focused on refining our bottom-up, asset-level assessments where possible, and continue to see most improvement in Public Markets, where corporate coverage and transparency is still greatest."

Following the creation of our Paris Portfolio Alignment Project in 2021, we have continued to measure the Fund's alignment with the goals of the Paris Agreement using a couple of different assessment tools. We remain focused on refining our bottom-up, asset-level assessments where possible, and continue to see most improvement in Public Markets, where corporate coverage and transparency is still greatest.

One alignment metric we use is Implied Temperature Rise (ITR) (see page 31). However, we acknowledge there are still limitations in terms of its methodology/assumptions and, in particular, its reliance on the credibility of a target or commitment made by a company. Both these factors also mean ITR can be quite volatile and challenging to compare year-on-year. In addition, at the portfolio level, ITR doesn't pinpoint exactly where progress is being made. However, the ITR metric does allow us to aggregate our assessments across asset classes and provides a simple way of indicating the forward-looking behaviour of our portfolio.

Over the past year, we have seen the underlying ITR for Equity, Credit and UK Credit all decrease. At the same time, there has been a very slight uptick the aggregated ITR for the overall PPF investment portfolio. This has been driven by the Fund's large allocation to UK Sovereign Debt, which has seen its ITR score rise as UK climate policy and legislation has been delayed or reduced in ambition[1].

A portfolio coverage approach allows us to measure the percentage of AUM across different Paris Agreement alignment categories (see 'PPF Fund alignment to Paris Agreement goals' above right) so we can track year-on-year progress. This approach acknowledges that portfolio holdings are at different stages on their alignment journey and can therefore help inform our engagement strategies for different asset classes, so we can push for progress at companies and issuers at both ends of the alignment spectrum.

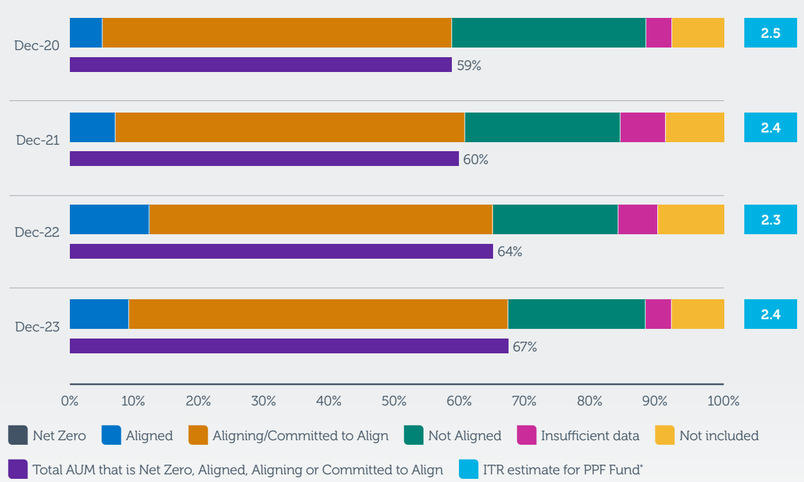
1 As measured by MSCI, Climate Action Tracker and CCPI. MSCI Sovereign warming rating: 2.8°C. CAT ranking decline from Almost Sufficient to Insufficient. CCPI ranking from 7th overall in 2022 to 11th in 2023 to 20th in 2024.

### Paris alignment progress update

Now that three full years have elapsed since setting our 2020 baseline, we are able to see measurable progress across the Fund's alignment with the Paris Agreement goals, as well as better data coverage overall. The fund's overall exposure to assets that are 'Net Zero', 'Aligned', 'Aligning' or 'Committed to aligning' has increased 9 per cent since 2020 to over 67 per cent. This has been largely driven by portfolio coverage of companies with SBTi-approved targets increasing (more detail in the SBTi section on page 29).

However, we have seen some companies being downrated from 'Aligned' to 'Aligning/Committed to align', as MSCI has updated its ITR methodology to include a 'target credibility assessment' (so that company-stated reduction targets are no longer completely taken at face value). We expect there will be further volatility around some of these ratings as the industry continues to work towards a standardised approach to assess Paris alignment. In the meantime, we will continue to engage with companies to demonstrate a Net Zero ambition and set targets that are science-based and appropriate for their sector.

**PPF Fund Alignment to Paris Agreement goals**




Source: PPF/MSCI ESG Research.

**How we have categorised our alignment assessments:**

**Net Zero:** Assets already achieving net zero emissions

**Aligned:** Assets with ITR score 1.5°C or lower; assets with carbon performance aligned with their sector net zero pathway

**Committed to align/aligning:** Assets with ITR score between 1.5 and 2°C; companies with approved SBTi target or target set; countries with a net zero commitment or NDCs 'almost sufficient'

**Not aligned:** Assets with ITR score over 2°C and no SBTi target

**Insufficient data:** Assets that we are unable to model

**Not included:** Assets or asset classes considered out-of-scope for the project (e.g. derivatives, short positions, physical cash)

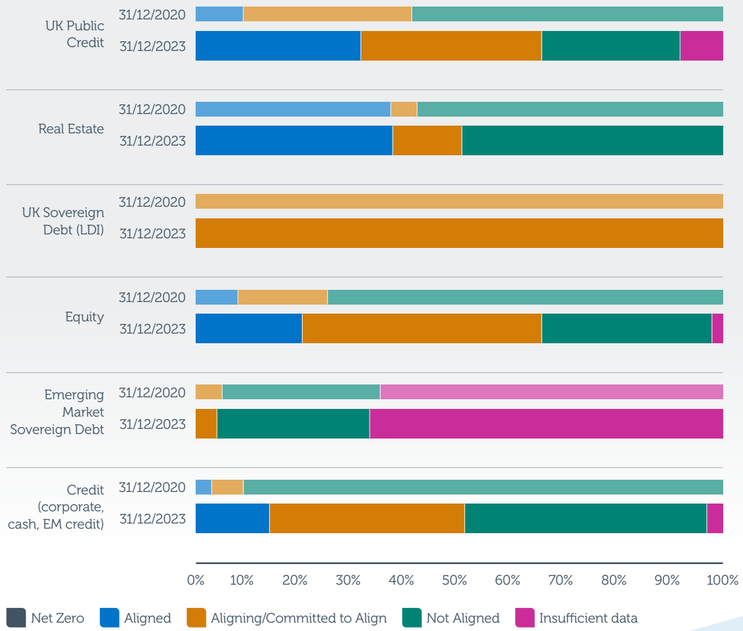
Note: PPF ESG team's in-house alignment assessments based on Ortec 2020+2021 results, MSCI ITR 2022+2023 analysis, SBTi approved targets & countries' targets. Alignment categories are leveraged from the IIGCC Net Zero Investment Framework.

* ITR coverage differs slightly from alignment coverage, due to proxies applied in ITR calculations.

### Asset class progress

The chart below shows six asset classes where we have recently compared alignment with Paris targets with our 2020 baseline year. We can see notable improvements in the overall alignment for Equity, Credit and UK Public Credit (noting that the UK Public Credit was already starting from a higher base. However, this does not hold true for UK and Emerging Market Sovereign Debt portfolios. The main challenge for the Emerging Market Sovereign Debt portfolio is lack of data for frontier debt markets. Plus, many emerging market economies are further behind in establishing pathways to Net Zero.

**Progress of portfolio alignment by asset class since Dec 2020 baseline**




See left for an explanation of these categories.

# **METRICS** CONTINUED

## Implied Temperature Rise (ITR)

### Why we assess our portfolio's Implied Temperature Rise

Implied Temperature Rise (ITR) allows us to show the temperature alignment (or misalignment) of our portfolio with global temperature goals such as the Paris Agreement. ITR assesses the carbon emissions generated by a company, fund or portfolio to estimate the temperature rise the world would see by the year 2100 if the whole global economy had the same carbon budget over-/undershoot as the asset in question. This can be used to help set decarbonisation targets and support engagement with portfolio companies on climate risk.

Implied Temperature Rise from MSCI ESG Research is a forward-looking metric, expressed in degrees Celsius, designed to show the temperature alignment of companies, portfolios and funds with global temperature goals – notably, in our case, the aim of the Paris Agreement to keep global average heating within 2°C (and ideally close to 1.5°C) of pre-industrial levels.

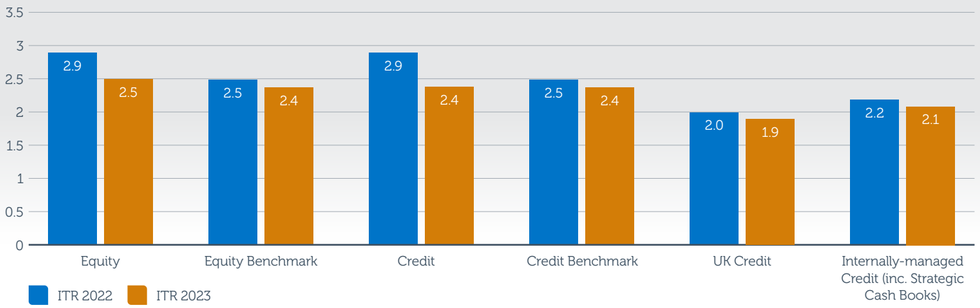
As mentioned, the ITR methodology that MSCI uses has been amended this year to follow best practice recommendations on measuring portfolio alignment as set out by the Glasgow Financial Alliance for Net Zero (GFANZ) in late-2022. This included tightening the contribution from corporate targets so that only credible targets are reflected in the projection of future emissions and, in turn, the resulting ITR score for a company.

We group the ITR scores into bands to inform our portfolio alignment assessment categories used on the previous page:

- An ITR score of 1.5°C or lower is considered to be Aligned with Net Zero.
- Greater than 1.5 and up to 2°C is considered to be Aligning.
- Greater than 2 and up to 3.2°C is considered to be Misaligned.
- Greater than 3.2°C is considered to be Strongly Misaligned.

For companies that have had an SBTi target approved or set an SBTi commitment, we consider these as Committed to Align in our alignment assessments, even if their current ITR score is greater than 2°C.

**Implied Temperature Rise (°C) of the PPF portfolio by asset class**






### Equity

Our Equity book has an ITR of 2.5°C which is at the lower end of the Misaligned category and has fallen from 2.9°C in 2022. Specifically, 49 per cent of the book (by market value) is categorised by MSCI as Aligned, 33 per cent is Misaligned, and 16 per cent is Strongly Misaligned (the remaining percentage is not covered). Of the 17 Equity names that we have the highest exposure to, roughly 60 per cent are Aligned and the remaining either Misaligned or Strongly Misaligned.

**Equity name with high ITR impact:** The Equity portfolio includes a Chinese Coal name that is Strongly Misaligned. Although it has decarbonisation projects such as carbon capture and utilisation, it doesn't have sufficient targets and only recently started disclosing emissions. The name is on our Climate Watchlist.

### Credit

Our Credit book has an ITR of 2.4°C which is considered Misaligned, although it has improved from 2.9°C in 2022. Specifically, 50 per cent of the book is Aligned, 37 per cent is Misaligned and 11 per cent is Strongly Misaligned (the remaining percentage is not covered).

**Credit name with high ITR impact:** One of the biggest factors in our Credit book's improved ITR year-on-year is its high exposure to a Canadian Bank. The bank is a member of the Net Zero Banking Alliance and is taking various steps to reduce emissions both operationally and through its lending book.

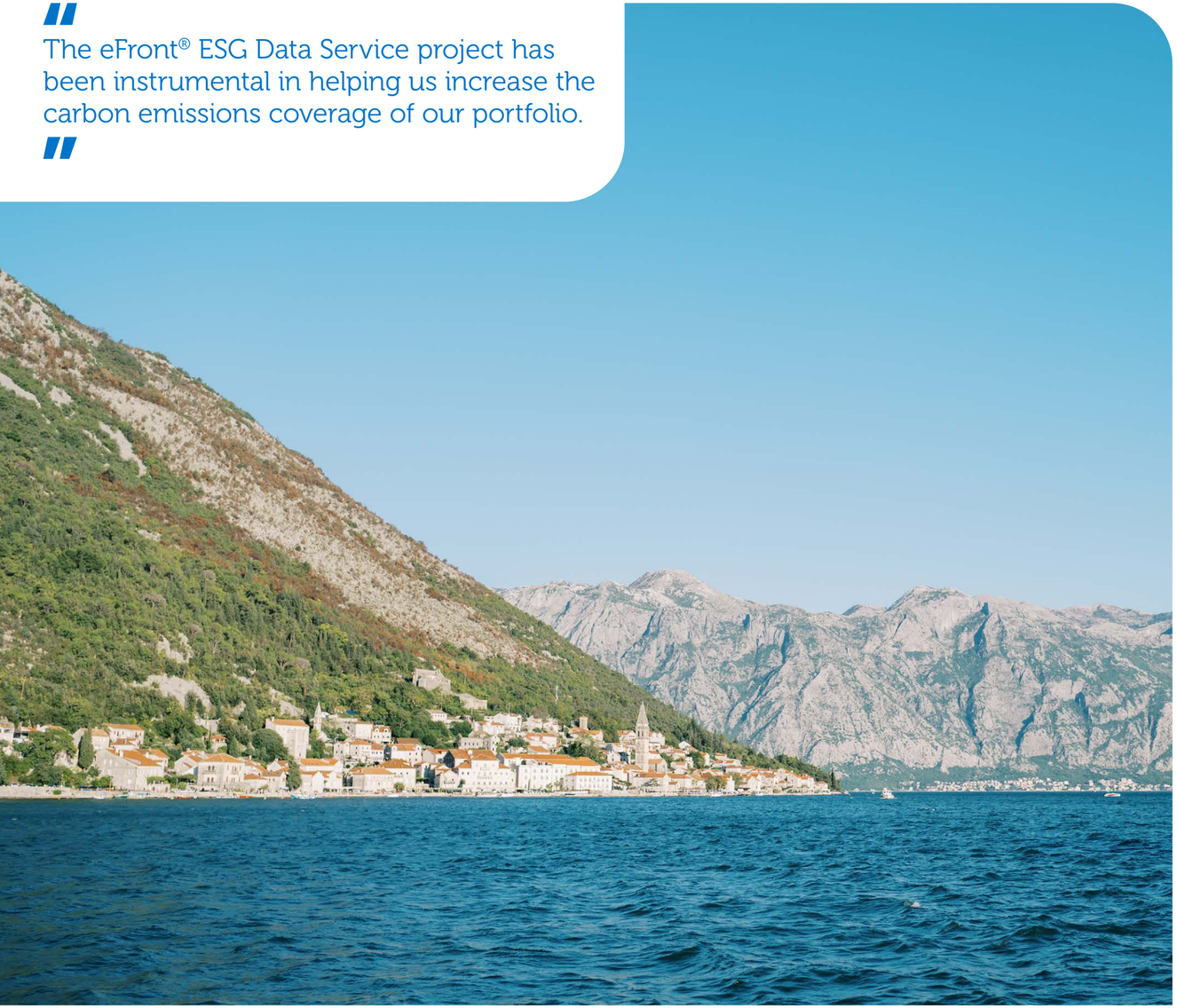
### UK Credit

The UK Credit book has an ITR of 1.9°C, which is considered Aligned. Specifically, 53 per cent of the book (by market value) is Aligned, 30 per cent Misaligned and 9 per cent Strongly Misaligned (the remaining percentage is not covered).

**UK Credit name with high impact:** One Misaligned name is a Global Industrial Conglomerate, which features on our Climate Watchlist. Although the company has set targets for reducing emissions, its goals are not yet sufficiently robust. However, following engagement with our stewardship services provider, it has committed to setting more rigorous SBTi-approved targets which should lead to better alignment with the Paris Agreement goals in the future.

# **METRICS** CONTINUED

> The eFront® ESG Data Service project has been instrumental in helping us increase the carbon emissions coverage of our portfolio.



## Other asset classes – Private Markets

As reported earlier in this report, we continue to participate in the eFront® ESG Data Service project to capture key ESG data from private markets funds. This year, eFront® has been able to start incorporating the data received via the campaign to calculate financed Scope 1, 2 and 3 emissions for the Infrastructure, Private Equity, Alternative Credit and Farmland and Timberland funds in our Growth Portfolio. Although the campaign also requested carbon emissions for our Real Estate book, the platform was unable to provide financed emissions due to some unique challenges of the asset class.

We excluded Farmland and Forestry from our financed emissions. Many of these assets have negative emissions (acting as carbon credits or have large carbon sequestration) and we would not like these to distort the emissions calculations for other parts of our Private Markets portfolio.

### Level of Private Markets emissions coverage

The eFront® ESG Data Service project has been instrumental in helping us increase the carbon emissions coverage of our portfolio. Private Market assets account for about half of the PPF Growth Portfolio (see page 01), of which we have assessed financed emissions for just under two-thirds of the Private Markets AUM, excluding Real Estate, Farmland and Forestry.

There has been nearly full disclosure of emissions for our Infrastructure book (94 per cent) and medium coverage for our Private Equity book (46 per cent for Scope 1 & 2 and 3). Coverage is low for Alternative Credit (14 per cent for Scope 1 & 2 and 9 per cent for Scope 3 emissions). This is mainly due to lack of control of the underlying assets as managers only provide credit and do not directly influence assets.

Thanks to the eFront® ESG Data Service project, our overall coverage of Private Markets (ex Real Estate and Farmland and Forestry) is 49 per cent for Scope 1 & 2 emissions and 47 per cent for Scope 3 emissions. Most emissions have been reported through the eFront® platform. However, in many cases, it has not been defined if emissions were provided directly by portfolio companies or not. Where possible, eFront® has overlayed gaps with estimates from Clarity AI, a machine-learning tool that generates proxies from public markets that can be used as private markets proxies where appropriate.

**Private Markets – Coverage of Emissions (by % of Market Value)**

| | Scope 1 & 2 | Scope 3 |
|---|---|---|
| **Private Equity** | 46% | 46% |
| **Alternative Credit** | 14% | 9% |
| **Infrastructure** | 94% | 94% |
| **Total Coverage** | 49% | 47% |

Source: PPF/eFront® ESG Data Service project.

**Private Markets – Reported vs. Estimated Scope 1 & 2 emissions**

| | Emissions reported by manager | Emissions estimated by manager or Clarity AI |
|---|---|---|
| **Private Equity** | 16% | 29% |
| **Alternative Credit** | 2% | 13% |
| **Infrastructure** | 29% | 65% |

Source: PPF/eFront® ESG Data Service project.

**Private Markets – Reported vs. Estimated Scope 3 emissions**

| Reported vs. Estimated Scope 3 | Emissions reported by manager | Emissions estimated by manager or Clarity AI |
|---|---|---|
| **Private Equity** | 6% | 39% |
| **Alternative Credit** | 2% | 8% |
| **Infrastructure** | 2% | 92% |

**Private Markets – Financed Emissions ($tCO_2e$)**

| | Scope 1 & 2 | Scope 3 |
|---|---|---|
| **Private Equity** | 48,565 | 259,543 |
| **Alternative Credit** | 6,243 | 40,090 |
| **Infrastructure** | 214,450 | 827,810 |

Source: PPF/eFront® ESG Data Service project.

Note: If the manager has not defined if the emissions are reported or estimated, we have defaulted to estimated. Aggregate reported/estimated percentages may be slightly different from coverage percentages due to rounding.

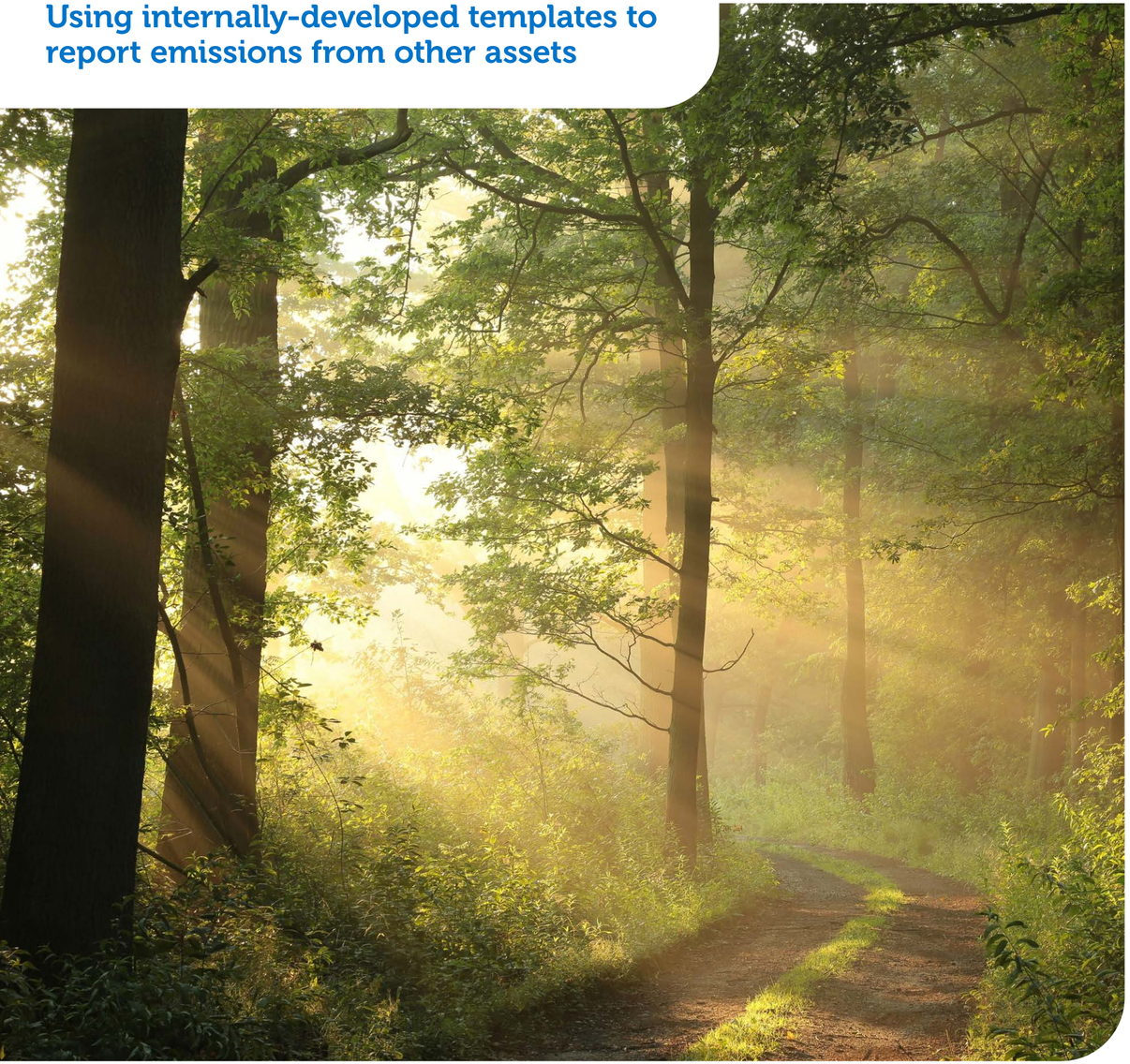
**Next steps**

We will continue to engage with our Private Markets managers and the eFront® ESG Data Service project to increase coverage and quality of emissions disclosure across all private asset classes so analysis across our portfolio can be as complete and accurate as possible.

The higher emissions associated with the Infrastructure portfolio do not reflect the assets' forward-looking alignment potential. Our new Transition & Sustainable asset framework is designed to provide a contrasting lens of how well positioned some of these assets are for a future energy transition. See page 34 for more detail.

## METRICS CONTINUED

# Using internally-developed templates to report emissions from other assets



## 1

## For Private Credit assets

Our externally-managed Private Credit sleeve within the HAIL allocation of the Matching Portfolio consists of a mix of Private Credit assets and Real assets, and accounts for about 15 per cent of the Matching Portfolio. It is a challenging asset class to report aggregated emissions for due to its hybrid nature, and is not covered by MSCI, our Public Markets data provider, nor by the eFront® ESG Data Service project to assess private market assets.

This year, we therefore decided to develop our own template to collect emissions data for Private Credit and roll it out to two external managers that account for £2 billion, or just over 80 per cent, of our Private Credit exposure.

As the Private Credit portfolios also consist of Real Assets (such as Real Estate and Infrastructure debt), which utilise different methodologies to calculate emissions from corporates, we have reported emissions for Real Assets separately. Challenges to aggregating data have also led us to report the emissions of the two managers separately (as Portfolio 1 and Portfolio 2).

**Private Credit assets – total emissions by manager**

| Private Credit | Scope 1&2 emissions ($tCO_2e$) | Scope 3 emissions ($tCO_2e$) |
|---|---|---|
| **Portfolio 1**** | – | – |
| **Portfolio 2***** | 621 | 17,852 |
| **Out of which Real Assets*** | | |
| **Portfolio 1** | 18,566 | – |
| **Portfolio 2** | – | 3,804 |

**Private Credit assets – emissions data coverage**

| Private Credit | Emissions coverage | Reported emissions | Estimated emissions |
|---|---|---|---|
| **Portfolio 1**** | – | – | – |
| **Portfolio 2***** | 25% | 18% | 7% |
| **Out of which Real Assets*** | | | |
| **Portfolio 1** | 100% | 37% | 63% |
| **Portfolio 2** | 100% | 66% | 34% |

Source: PPF/External managers.

* Emissions from Real Assets are derived using a different calculation methodology.

** The manager of Portfolio 1 classified all assets held as Real Assets, so all emissions have been assigned to this subcategory.

*** Portfolio 2's Real Assets only consist of Real Estate assets, hence only Scope 3 tenant emissions have been reported.

In terms of emissions data disclosure, the Real Assets component of each portfolio has achieved full coverage. Both managers are engaging directly with underlying occupiers to secure emissions data and using tools to estimate and fill in any gaps.

Emissions from corporates within Private Credit can be more challenging to secure due to the lack of control of underlying holdings (a similar issue to what we have encountered for our Alternative Credit book). The manager of Portfolio 2 is therefore developing an internal tool to generate estimated emissions.

The initial figures here directly reflect the responses from our managers without additional input from us. As we work further with our managers to provide data, we hope to present more refined emissions reporting for this part of our portfolio.

## 2

## For Real Estate

As noted earlier in this report, eFront® does not calculate financed emissions for Real Estate as part of its campaign to collect ESG data for private assets. We have therefore asked our Real Estate managers to send us their Scope 1, 2 and 3 emissions data. We are not yet able to report aggregated results in a standardised way. However, consistent with our strategy to be transparent, we are reporting for the first time the carbon emissions of our two UK Real Estate portfolios, which account for just under half of our total Real Estate portfolio.

As detailed on page 35, 65 per cent of the underlying funds in the multimanager portfolio referred to here as UK RE Portfolio 2 are now committed to transitioning to Net Zero, and 84 per cent of those funds that have commitments have published their pathway to reach Net Zero.

**UK Real Estate – total emissions by portfolio**

| Emissions ($tCO_2e$) | Scope 1&2 emissions ($tCO_2e$) | Scope 3 emissions ($tCO_2e$) |
|---|---|---|
| **Portfolio 1** | 14 | 4,510 |
| **Portfolio 2** | 656 | 2,407 |

**UK Real Estate – emissions data coverage**

| | Emissions coverage | Reported emissions | Estimated emissions |
|---|---|---|---|
| **Portfolio 1** | 63% | 59% | 4% |
| **Portfolio 2** | 75% | 75% | 0% |

Source: PPF/External managers.

Note: Portfolio 1 and Portfolio 2 in the Real Estate table are different portfolios to Portfolio 1 & 2 in the Private Credit table above.

# METRICS CONTINUED

## Sustainable and Transitioning Assets

So far our assessment of how far our portfolio is aligned with global goals on climate has relied on some assumptions based on sectors. But we realise we need to assess alignment asset by asset, with a view to providing a complete assessment of the sustainability of our portfolio and how ready our assets are to transition to a Net Zero global economy.

Last year, we provided our first high-level snapshot of our exposure to assets that can be classified as 'sustainable' – see below. This focused primarily on listed markets, where we can use the assessment from MSCI, our public markets ESG data provider, as their framework seeks to align with best practice and is updated as methodologies evolve. We also included Forestry (see page 35 for sustainability details of our Forestry assets).

**PPF exposure to Sustainable assets per asset class**

| | Exposure to sustainable assets 2023 | AUM $mn 2023 |
|---|---|---|
| Equity | 6.3% | $178 |
| Credit | 2.3% | $173 |
| UK Credit | 6.7% | $156 |
| Forestry | 100.0% | $1,371 |

**What we have classified as 'sustainable':**
**Equity, Credit, UK Credit:** Companies with green revenue exposure or exposure to products and services classified as low-carbon solutions.

**Forestry:** Forests that are certified by international bodies and/or managed in a sustainable manner.

Source: PPF/MSCI

## Infrastructure – trialling our Transition & Sustainable Asset framework

For Private Markets, assessing assets individually has historically been trickier as asset-level analysis is not yet available from data providers. Therefore, we are developing an in-house framework to identify transition and sustainable assets, in collaboration with our internal and external portfolio managers.

This project is being undertaken to help us understand how well the assets within our portfolios are positioned for a transition. We are aware that a number of factors can influence the overall breakdown of the portfolio, and that we may see fluctuations year-on-year. Therefore, we are not setting targets or thresholds across the different categories. However, the outputs will inform our stewardship activities for the private markets portfolio.

We have started by analysing our Infrastructure book, which accounts for just under 10 per cent of our Growth Portfolio as this asset class is seen as one in which a range of opportunities for sustainable and transition investments exist. We aim to conduct similar analysis for all our Private Market assets in coming years.

To classify our Infrastructure assets, we have developed a simple taxonomy that's informed by some of the green and transition frameworks in the market. As this is our first time conducting this exercise, we have decided to classify assets in fairly broad categories. As we gain experience, we aim to introduce more detail.

**PPF Transition & Sustainable Asset Analysis**

| | |
|---|---|
| Green | Assets that are contributing to a sustainable future and support the transition to a Net Zero global economy |
| Orange | Assets with targets and/or transition plans to decarbonise. Targets are either self-declared Net Zero targets or SBTi targets |
| Red | High-impact sector assets with no clear targets and/or transition plans |
| Grey | Neutral/ no direct transition/sustainable contribution and non-material sectors |

**Initial results of this analysis**

Using this framework, we have been able to classify nearly a third of our Infrastructure book by market value as Green due to the nature of the assets' operations (mainly renewable energy companies and electric trains).

We have classified social infrastructure assets such as hospitals and schools as Grey as we do not consider them as high-carbon assets, plus they contribute inherently to the healthy functioning of society. We have also conservatively classified fibre network assets as Grey (instead of Green). After reviewing each one with our external managers, we took the view that fibre network companies promote lower emissions and provide essential internet infrastructure in areas that need it.

We have classified as Red companies that are in non-renewable Energy sectors and Transport companies without a sufficient plan or targets to transition. Transportation and Roads have been proven the hardest sector to classify as there is not a clear framework for target-setting and transitioning. We have therefore considered companies' existing and upcoming initiatives after consulting with and getting additional insight from our external managers.

We have conservatively classified waste-to-energy assets as Orange rather than Green. Although they contribute to lower emissions than traditional fossil fuel power and some are working on carbon capture projects, the emissions associated with these assets are still greater than for renewable energy. We will consider upgrading them in the future if they manage to achieve Net Zero or Net Negative emissions. Orange assets account for 48 per cent of our Infrastructure portfolio.

**Breakdown of the PPF Infrastructure portfolio by Transition & Sustainable Asset category (by market value)**

| | |
|---|---|
| Green | 30% |
| Orange | 48% |
| Red | 13% |
| Grey | 9% |

Source: PPF

**Next steps**

- We are confident that this new Transition & Sustainable Asset Analysis can enhance our understanding of the climate position of our current assets and help inform our future portfolio construction.
- The collaboration with internal and external PMs has been very rewarding, enabling us to exchange ideas and complement each other's knowledge and ensure we had all the information needed to classify each of our Infrastructure assets correctly.
- We look forward to conducting this analysis for other asset classes.

> "To classify our Infrastructure assets, we have developed a simple taxonomy that's informed by some of the green and transition frameworks in the market."

# METRICS CONTINUED

## Real Estate – assessing sustainability

Progress on disclosure among our Real Estate managers continued for the second year with all managers providing at least some reporting, along with an overview of how sustainable their Real Estate holdings are. We can classify as 'sustainable' those real estate assets that either have the highest energy rating in their region, hold certificates showcasing excellence in sustainability, and/or are classified as green by a credible third party.

This year, we have managed to obtain an EPC Ratings breakdown for 99.7 per cent of our Real Estate book by value, compared to 88 per cent in 2022. The remaining 0.3 per cent is invested in a fund that is winding down.

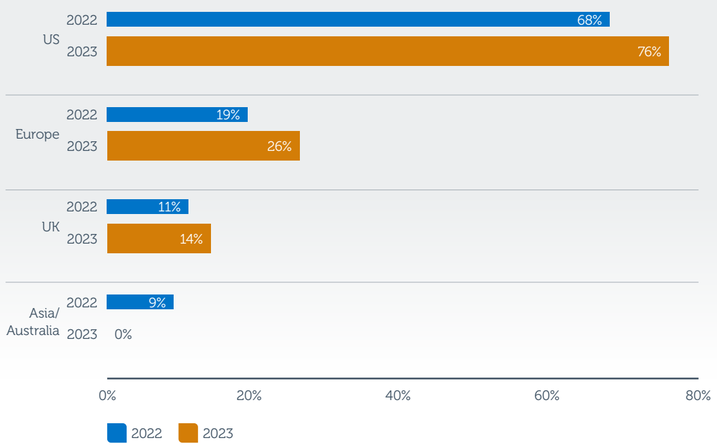
Positive improvement has primarily come from our UK, US, and European Real Estate books, which have seen their proportion of sustainable assets increase by 3 per cent, 8 per cent and 7 per cent respectively.

In UK Real Estate, most of the increase in assets that can be classified as sustainable is coming from one of our direct UK Real Estate portfolios, mainly due to the sale of assets with lower energy rankings. Our US portfolio has seen its sustainability increase by 8 per cent due to more buildings receiving energy ratings.

The increase in sustainable assets among our European Real Estate holdings reflects EU efforts to decarbonise. We expect this proportion to increase in coming years, as some assets under construction are expected to be highly rated for sustainability when complete.

There has been a drop in Real Estate assets classified as sustainable in Asia/Australia, following a sale of a highly-rated asset in order to realise returns. Our exposure to the region is small so any change in asset allocation has a significant impact.

**Real Estate: MV (%) in Assets with High Energy Rankings**




Source: PPF/External managers.

Note 1: We have restated 2022 results following updated information from our managers.

Note 2: The European figure may include some UK exposure where a fund has exposure to both.

## Real Estate – examples of sustainability progress

This year has seen important progress in a number of areas of our Real Estate portfolio, both to improve sustainability and disclosure about it. Three highlights are:

**Comprehensive sustainability reporting** – One of our largest external Real Estate managers has been developing its assessments around environmental sustainability and especially climate risk – both transitional and physical. Across its mandates, it is now providing us with sustainability certification by asset type and case studies profiling initiatives to improve asset sustainability.

Alongside carbon emissions data, the manager is providing us with details on what activities have taken place to reduce emissions and what future steps are planned. We also receive a quarterly dashboard detailing progress versus targets across a range of sustainability measures.

**Target-reaching in European Real Estate** – In our European Real Estate fund, we have already seen a 54 per cent reduction in carbon emissions since 2019 significantly beating the target set of a 50 per cent reduction by 2030. In addition, 93 per cent of the portfolio by value now has environmental certifications. The manager also measures progress towards the 2030 CRREM targets by sector type and on a weighted basis. Since 2019, a 20kg$CO_2$/sqm reduction has been achieved which is well on the way to the 34kg$CO_2$/sqm reduction by 2030 target indicated by the CRREM pathway. This has been achieved through a number of activities such as carrying out Net Zero audits, purchasing assets with solar power, installing PV arrays and LEDs and implementing system adjustments to improve energy efficiency.

**Multimanager engagement** – In our UK multimanager Real Estate fund, our mandated manager focused on two climate-related engagement themes with underlying managers. These were, first, progress on Net Zero adoption and managing transition risk, and, second, how underlying managers are assessing and approaching the physical climate risks to their real estate assets. Our latest update for this fund shows:

- 65 per cent of the fund by market value is now subject to a Net Zero carbon commitment.
- 84 per cent of the fund by market value with commitments have published their pathway to Net Zero.
- The estimated date for the portfolio to reach Net Zero is 2041.
- At least 97 per cent of the portfolio's assets are assessed for physical risks which feeds into buy-hold-sell decisions.
- 18 per cent of the portfolio is assessed using a Climate Value-at-Risk (CVaR) measure.

**93%**
of our European Real Estate Fund by value has environmental certifications

**84%**
of the fund by market value for our UK multimanager Real Estate fund now has a published pathway to Net Zero

## Forestry

Forestry is an asset class where we see sustainable investment opportunities. It helps to mitigate $CO_2$ emissions by storing carbon, making it one of the few viable nature-based investment solutions that can help progress towards a Net Zero world. Well-managed forests can also increase biodiversity.

| Certification of timberland (PPF's share) | 2022 | 2023 |
|---|---|---|
| Certified timberland in accordance with the FSC and/or PEFC | 98.50% | 99.99% |
| Timberland in the process of certification in accordance with the FSC and/or PEFC | 0.90% | 0.00% |
| Land that is sustainably managed in accordance with the FSC and/or PEFC, but that cannot be certified | 0.00% | 0.01% |
| Other | 0.50% | 0.00% |

Almost all of our forestry assets (99.99 per cent, up from 98.5 per cent in 2022) are now certified to the highest internation standards (FSC and/or PEFC). Our external manager of the tiny percentage that isn't certified with FSC and/or PEFC has assured us that it is managed sustainably and in accordance with these certifications. The small percentage that fell under Other last year is now verified in accordance with the certificates.

As well as certification, we ask our forestry managers to report carbon sequestration data. All of them have done so – however as there is no standardised methodology for this data, we are unable to compare and aggregate data.

Given the relevance of biodiversity as a material factor in the sustainable management of forestry assets, we expect our managers to be considering nature-related risks and opportunities in their asset management activities. One of our assets, The Tasmanian Forest Trust, published one of the first integrated Climate + Nature disclosures in 2023 as a best practice example of natural capital reporting.

## METRICS CONTINUED

# Measuring and managing the impact of our operations

## Addressing our own environmental impacts

We support the UK Government's Greening Government Commitments and reflect them through our own investment practices and business operations where possible. We are committed to supporting the Government's Net Zero by 2050 target and are taking all reasonable steps as an organisation to achieve this for our own operations by 2035 or sooner. Scope 3 financed emissions from our investments will be considered separately.

We have already accomplished Net Zero for our direct organisational emissions, which were comparatively straightforward to address. Our focus over the past year has therefore been on reducing and managing our organisational emissions within our value chain. Specifically, we have concentrated on Scope 3 categories 1, 6, and 7, which encompass purchased goods and services, business travel, and employee commuting/remote working, as we feel that reducing these indirect emissions is crucial to our commitment to environmental sustainability.

During the year, we reviewed the updated Sustainability Reporting Guidance for 2023–24 for public-sector entities from HM Treasury. Changes in the guidance include new TCFD-aligned Phase 1 disclosure requirements for in-scope reporting entities, including a TCFD Compliance Statement, Governance disclosures and Metrics & Targets disclosures (Scopes 1, 2 and Scope 3- business travel). Although PPF is not in-scope (as a public corporation), we will adopt these disclosure requirements as best practice where possible.

We also reviewed the newly-issued International Sustainability Standards Board (ISSB) IFRS S1 and IFRS S2 reporting frameworks against our existing sustainability reporting. We will review the development of any public-sector guidance that comes out of these new frameworks in the UK.

### Assessing our offices

The PPF offices in Croydon and Cannon Street are based in shared-lease buildings so we have limited control over them, nor complete access to activity data and systems. We mainly source energy-use data from our building managers but have estimated our share of usage when information is not available. Both of these office buildings are already very efficient, with no direct combustion facilities onsite and BREEAM ratings of 'Excellent' and 'Very Good' respectively.

All of the electricity our offices use is sourced from 100 per cent renewable electricity tariffs, which have been in place since October 2019. Therefore, our direct organisational greenhouse gas emissions (Scope 1 and 2) are effectively zero, using a Scope 2 market-based approach. Our data centres have also sourced 100 per cent renewable electricity during the reporting period, which is also contributing to zero Scope 2 market-based emissions. (Our data centre's Scope 3 emissions are reported as 1.3 of metric tonnes of carbon dioxide equivalent, resulting from server manufacture and shipping.)

We continue to work to reduce our electricity consumption through greater energy efficiency where possible. As the table on page 38 shows, our Scope 2 location-based emissions have steadily fallen as energy efficiency has improved – specifically in our Croydon office (see panel, right) – with a 53 per cent reduction since our 2019/20 baseline year.

We have taken steps to minimise our physical data footprint by continuing to migrate data, documentation and technology services to the cloud. By the end of the reporting period, 98 per cent of our documentation and data was held in the cloud, and we have reduced our use of physical data storage to two racks at one data centre location. Over the reporting period, emissions from one of our cloud-based platforms, Microsoft Azure, have also trended down, thanks to improved services optimisation.

### Business travel

The number of business flights being taken by PPF employees has returned to similar levels as our 2019/20 pre-pandemic baseline. Although business travel is still an essential element of our business, particularly when carrying out due diligence of our investments and key suppliers, we strongly encourage employees to consider alternatives where possible.

To measure our travel emissions, we used information taken from expense claim reports and invoices. Estimates are used when exact distance travelled is unknown. We have excluded flights reimbursed by third parties. During the year, we reviewed the need for a sustainable business travel approach and investigated the possibility of using a travel booking platform, the data from which would allow more granular reporting on travel-related carbon emissions.

> "We are committed to supporting the Government's Net Zero by 2050 target and are taking all reasonable steps as an organisation to achieve this for our own operations by 2035 or sooner."

### Improving energy efficiency in our Croydon office

A 53 per cent decrease in our location-based carbon emissions since 2019/20 can be attributed to several key improvements and maintenance efforts at our Croydon office.

- The solar panels at the office building have been working more efficiently due to regular cleaning and repair, resulting in a significant increase in monthly kilowatt-hours electricity generation.
- The building management team has made substantial progress in a programme to upgrade to LED lighting, replacing lighting in numerous common parts over the past year and coming close to reaching the goal of using 100 per cent LED.
- The property's heat pumps and circulation pumps have experienced fewer faults and are therefore operating less frequently and not working overtime. The replacement of one immersion heater with a more energy-efficient model last year has contributed to reduced energy use.
- Water booster pumps have been fault-free for the last 12 months, preventing them from staying on and working overtime.

## **METRICS** CONTINUED

CASE STUDY

### Working with external stakeholders to address

# Scope 3 emissions

As this report shows, the PPF is able to maintain reasonable control over its direct Scope 1 and 2 emissions. However, like many organisations, our ability to reduce our indirect Scope 3 emissions – for example from our supply chain and investments – is more challenging and depends on our suppliers, portfolio companies and sovereign issuers taking steps to lower their own emissions.

We are therefore committed to engaging with external stakeholders to explore, encourage and support transparent and impactful sustainable practices, recognising this is critical to achieving our own Net Zero ambitions.

Over the year under review, we proactively engaged with various external organisations to learn and share approaches to reducing Scope 3 organisational emissions. This included arranging one-on-one conversations with the Department for Work & Pensions (our reporting body), and with peer arms-length bodies (ALBs), asset managers, and suppliers.

We actively participated in the DWP-ALB sustainability delivery working group, which serves both as an advisory body and a knowledge-sharing platform. Our involvement allows us to contribute insights, share best practice in sustainability reporting and assurance processes, and align our own sustainability efforts with industry peers. During one of these meetings, we presented the PPF Sustainability Strategy, including our commitments to reach Net Zero, which was highly appreciated by the DWP sustainability team.

We also continued to work closely with our key suppliers this year to learn about their sustainability practices and share insights to enhance relationships across our supply chain. To improve process efficiency, we published our Sustainable Procurement Policy, which is aligned with the PPF Sustainability Strategy and our key stewardship themes (Climate Change, Diversity & Inclusion and Human Rights), alongside a Supplier Code of Conduct, which sets out the minimum standards we expect from suppliers.

Our supplier sustainability questionnaire has been revamped in line with our new Sustainable Procurement Policy. Our goal is to achieve a 90 per cent responsiveness rate from our Group 1 (i.e., strategic) and high-impact (i.e., suppliers that have a 'high impact factor' under one or more of our three key stewardship themes above) by the next reporting year. We will share the results of our sustainability questionnaire report with suppliers in order to promote best practice and enable companies to see how their sustainability actions compare to their peers'.

# **METRICS** CONTINUED

## Summary of the PPF's organisational Scope 1, 2 and 3 emissions

**PPF operations – summary of carbon emissions**

All emissions given as units in tonnes of carbon dioxide equivalent ($tCO_2e$) unless stated otherwise.

| | | 2019/20 (baseline) | 2020/21 | 2021/22 | 2022/23 | 2023/24 | % Change since baseline |
|---|---|---|---|---|---|---|---|
| **Energy consumption used to calculate emissions in kWh** | | 1,076,231 | 1,123,197 | 1,076,948 | 936,935 | 631,321 | -41% |
| **Scope 1 emissions** | See footnote 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | – |
| **Scope 2 emissions** | **Location-based** (see footnote 2) | 275.1 | 261.9 | 228.7 | 181.2 | 130.2 | -53% |
| | **Market-based** (see footnotes 3 & 4) | 160.5 | 0.0 | 0.0 | 0.0 | 0.0 | -100% |
| **Scope 3 emissions** | See footnote 5 | 60.3 | 0.2 | 2.3 | 53.2 | 65.4 | 8% |
| **Total Scope 1, 2 and 3 emissions (gross)** | See footnote 6 | **335.4** | **262.1** | **231.0** | **234.4** | **195.6** | **-42%** |
| **Total Scope 1, 2 and 3 emissions (net)** | See footnote 7 | **220.8** | **0.2** | **2.3** | **53.2** | **65.4** | **-70%** |

**Notes:**

1 Scope 1 covers direct emissions from owned or controlled sources. Our two shared-lease office buildings are already efficient, with no direct combustion facilities on-site, and BREEAM ratings of 'Excellent' or 'Very Good' respectively. So, our Scope 1 Greenhouse Gas Emissions from fossil fuel combustion are zero (0).

2 A location-based method reflects the average emissions intensity of grids on which energy consumption occurs (using mostly grid-average emission factor data).

3 A market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice). It derives emission factors from contractual instruments, which include any type of contract between two parties for the sale and purchase of energy bundled with attributes about the energy generation, or for unbundled attribute claims.

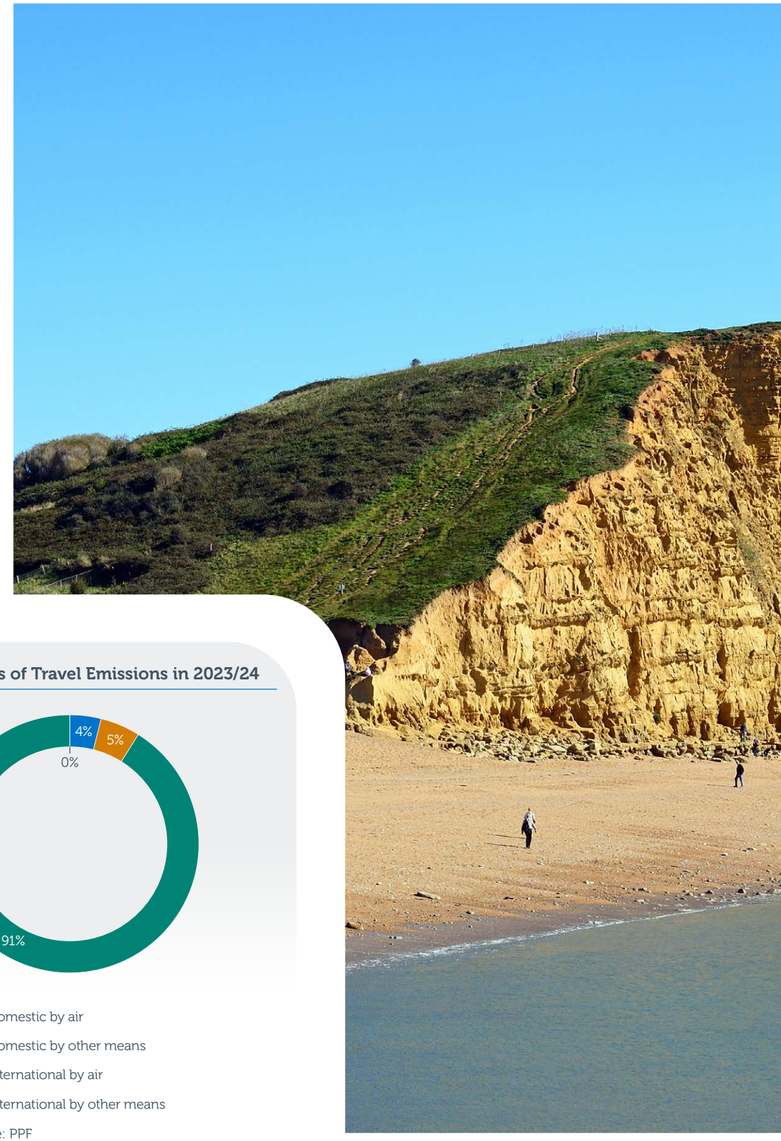
4 All the electricity our offices use is sourced via 100 per cent renewable electricity tariffs, which have been in place in both offices since the end of October 2019. For the seven months (April to October 2019) we have calculated our market-based emissions as: 275.1*(7/12) = 160.5 ($tCO_2e$), where total location-based emissions for 2019/2020 were 275.1 $tCO_2e$.

5 Our Scope 3 organisational emissions include emissions from business travel only at present. For 2023/24, the reported business travel emissions exclude 21.1 tonnes of $CO_2e$ emissions from travel paid for by third parties.

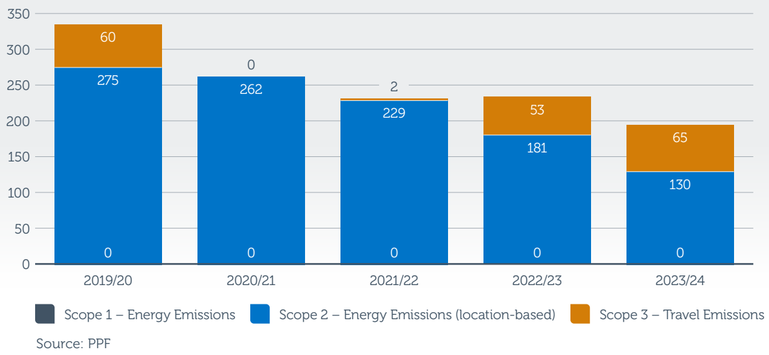
6 Our total gross emissions are calculated by aggregating our Scope 1, Scope 2 location-based and Scope 3 business travel emissions.

7 Our total net emissions are calculated by aggregating our Scope 1, Scope 2 market-based and Scope 3 business travel emissions.

8 The data has been prepared using DESNZ conversion factors.

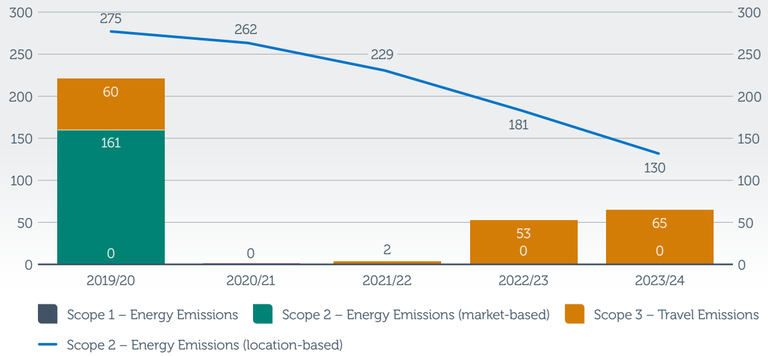


### Emissions (in tonnes using a Scope 2 location-based approach)




Source: PPF

### Emissions (in tonnes using both a Scope 2 location-based and Scope 2 market-based approach)




Source: PPF

### Sources of Travel Emissions in 2023/24




Source: PPF

# Setting aspirational **targets**

Every year, we look to use the findings that come out of the analysis for our TCFD reporting to see how we might improve how we monitor, manage and reduce the carbon emissions connected to our investments and organisational activities. This year, we have reported our progress against last year's climate-related KPIs and objectives, and set some formal targets to reflect our ambition for the year ahead.

## Our progress against our 2022/23 climate-related KPIs and objectives:

### 1

**Ensure that at least 80 per cent of our Climate Watchlist Companies are making disclosures on emissions, with a view to standardising how this is reported**

- ☑ Strongly encouraged our investee companies to report in CDP's annual disclosure campaign.
- ☑ 78 out of the 87 (90 per cent) companies in our Climate Watchlist reported to CDP in their 2023 annual cycle, compared with 73 (84 per cent) in 2022.
- ☑ The additional five names to report to CDP account for more than 5 per cent of our financed emissions – two disclosed to CDP after our direct engagement.

### 2

**Continue to source 100 per cent of our purchased electricity for our offices through renewable tariffs each year**

- ☑ We continued to source 100 per cent renewable electricity for both of our offices and our data centres, obtaining the latest tariff certifications for the reporting year.
- ☑ We monitor this annually to ensure it remains the case.

### 3

**Work towards achieving Net Zero for our operations by 2035**

- Continued efforts to enhance process efficiency for driving Net Zero outcomes in our Scope 3 operations and supply chain.
- This included developing a sustainable procurement approach, publishing a Supplier Code of Conduct, defining our key suppliers and aligning our supplier sustainability questionnaire to our new sustainable procurement policy.
- Reviewed the need for a standalone sustainable travel policy and exploring options for a travel booking platform to collect granular data.
- Developed a Climate Change Adaptation Strategy and conducted risk identification exercises across all Sustainability Strategy working groups, reflected in RCSAs.
- Reported to the DWP quarterly on energy efficiency, paper usage, water management, and waste management as part of our Greening Government Commitments. Looking ahead, our goal for the next year is to communicate progress in emissions reductions having worked on the first steps of ensuring appropriate processes are in place within the first year of our Net Zero target commitment.

# SETTING ASPIRATIONAL TARGETS CONTINUED

## Climate-related KPIs for the 2024/25 financial year

### 1

**Outline our path to alignment for transition using the guidance from the HM Treasury Transition Plan Taskforce (TPT) for Asset Owners**

**By our year-end on 31 March 2025, we will deliver a paper outlining what a transition plan should consist of, using the guidance from HM Treasury's Transition Plan Taskforce. This will assess the extent to which the PPF has the key components of a transition plan in place, and what gaps still exist.**

We aim to understand which assets and mandates we do or do not have influence over, and how this might affect the implementation of a transition plan.

### 2

**Publish the reductions achieved to our organisation's environmental footprint over the strategic plan period**

**Our Sustainability Strategy has formalised the PPF's commitment to reducing its environmental footprint. Our primary focus is on reducing our energy emissions as efficiently as possible.**

Specifically, we will continue efforts to reduce emissions from Scope-2 location-based sources and address our Scope 3 travel emissions. We also intend to internally track emissions associated with employee commuting and work-from-home arrangements. We will publish what the impact of these and other measures have been on our environmental footprint over the strategic plan period of 2022 to 2025.

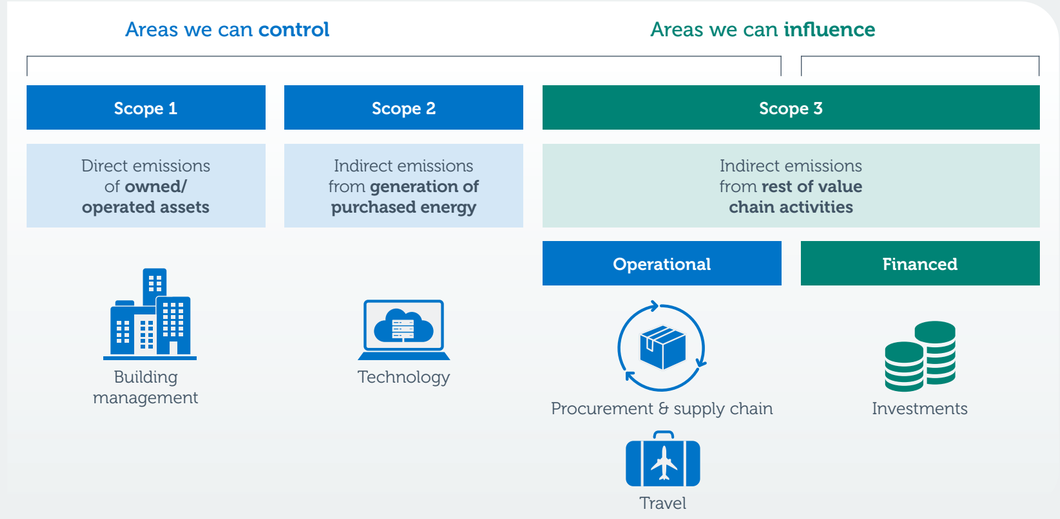
### 3

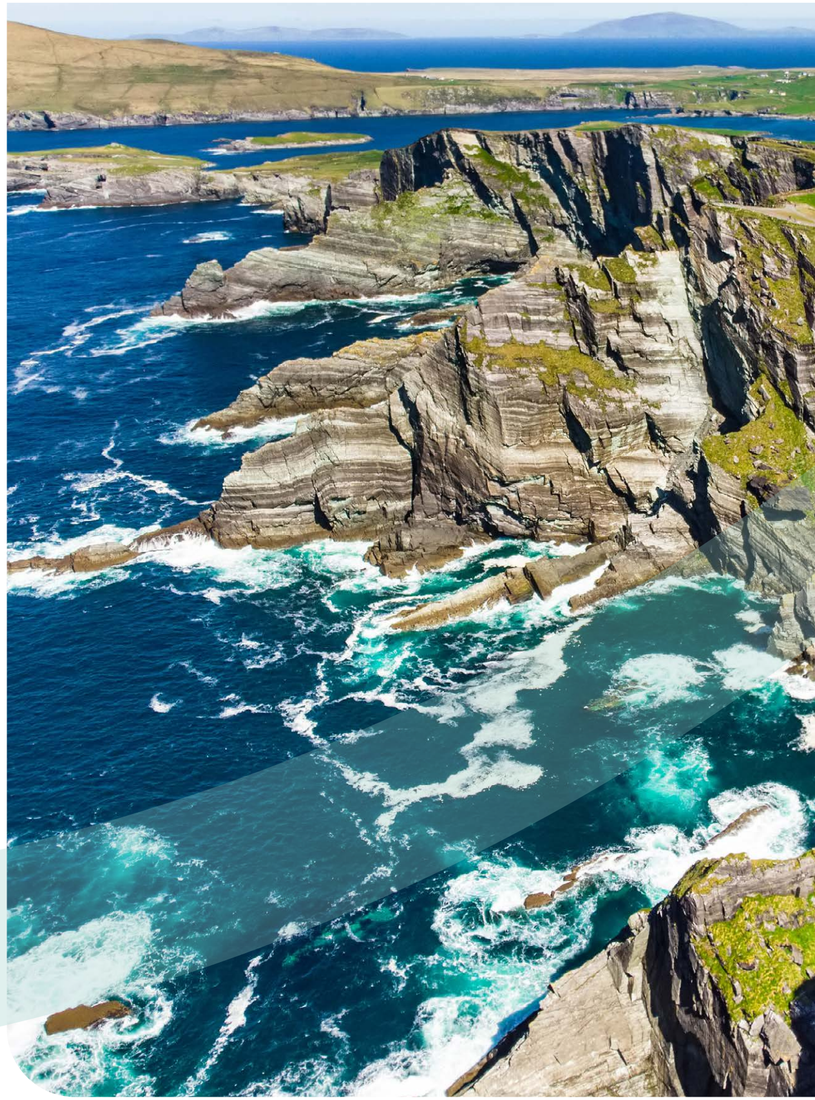
**90 per cent of Group 1 and High-Sustainability Impact Suppliers to return our Supplier Sustainability Report and respond to our Supplier Code of Conduct by 31 March 2025**

**As our supply chain is one of the material emissions scopes for the PPF, we have dedicated substantial efforts this year to enhancing the sustainable procurement approach for the PPF (see page 37).**

This included revising our supplier sustainability questionnaire to ensure our suppliers are aligned with our sustainability goals. We continue to share our sustainability questionnaire report with our suppliers. Our goal is to achieve a 90 per cent response rate from our Group 1 (i.e., strategic) and high-impact suppliers by the next reporting year. We also aim to integrate this process into our annual supplier due diligence.

## Scope 1, 2 & 3 emissions explained



# Appendices

**Appendix A**

## Our commitment to the TCFD

The Task Force on Climate-Related Financial Disclosures (TCFD) guidance was created by the Financial Stability Board to help companies and investors voluntarily disclose climate-related financial risks clearly, consistently and reliability to help lenders, insurers and investors make informed decisions.

We've formally supported the TCFD framework since 2018 and have continually implemented it across our investment process. We share our progress in our annual Responsible Investing (RI) reports, which also detail our stewardship activities and work as an active owner of securities and real assets.

Considering the impacts of climate change on our investments is one of the three priorities within our RI strategy.

We're committed to:

- **Implementing the TCFD**
  We're continuously applying and implementing TCFD recommendations – and are always looking for ways to improve transparency and management of climate risks in our portfolio.
- **Assessing transition risks and physical risks**
  We take a phased approach to analysing how exposed our portfolio is to risk in the global transition to a low-carbon economy, optimising relevant data as and when it becomes available. We are also starting to assess the physical risks that climate change presents to our portfolio, while recognising that data on this is at a very early stage.
- **Engaging with our fund managers**
  We work tirelessly with our fund managers across all strategies, asset classes and markets to ensure they consider, manage and report to us the climate-related risks and opportunities our investments might face.
- **Collaborating with industry**
  We are committed to engaging with our industry peers, policymakers, regulators and the wider investor community to further best practice in climate-related risk disclosure – supporting not only the TCFD but also Climate Action 100+, the Paris Aligned Investment Initiative, and CDP, the global disclosure organisation.

## A summary of where each TCFD recommendation is covered within this climate disclosure

| TCFD Pillars | TCFD recommended climate disclosure | Climate disclosure references |
|---|---|---|
| **Governance**<br>Disclose the organisation's governance around climate-related issues and opportunities. | a. Describe the board's oversight of climate-related risks and opportunities. | Pages 07–08 |
| | b. Describe management's role in assessing and managing climate-related risks and opportunities. | Pages 07–08, 11 |
| **Strategy**<br>Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's business, 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. | Page 09 |
| | b. Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning. | Pages 09–10 |
| | c. Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2 degree or lower scenario. | Pages 10, 26–27 |
| **Risk Management**<br>Disclose how the organisation identifies, assesses and manages climate-related risks. | a. Describe the organisation's processes for identifying and assessing climate-related risks. | Pages 11–14, 36 |
| | b. Describe the organisation's processes for managing climate-related risks. | Pages 11, 15–17 |
| | c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management. | Pages 08, 11, 36 |
| **Metrics and Targets**<br>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. | Pages 19–36, 38 |
| | b. Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and the related risks. | Pages 21–24, 32–33, 38 |
| | c. Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets. | Pages 39–40 |

# APPENDICES CONTINUED

Appendix B

## Disclosure metrics from the 2023/24 financial year

### PPF carbon footprint Public equity Scope 1 & 2 metrics

| | 2023 | 2022 | 2020 (Baseline yr) | Changes from 2022 to 2023 (%) | Changes from 2020 to 2023 (%) |
|---|---|---|---|---|---|
| **Metrics based on investor allocation (EVIC)** | | | | | |
| Total financed carbon emissions ($tCO_2e$) | 181,172 | 162,496 | 797,637 | 11% | -77% |
| Financed carbon emissions ($tCO_2e$/$m invested) | 64 | 55 | 122 | 16% | -48% |
| **Metrics based on portfolio weights (WACI)** | | | | | |
| Weighted average carbon intensity ($tCO_2e$/$m revenues) | 96 | 111 | 243 | -14% | -60% |
| Equity benchmark weighted average carbon intensity ($tCO_2e$/$m revenues)* | 74 | 86 | 300 | -14% | -75% |
| Market value of the fund's equities covered by carbon data ($m) | $2,820 | $2,977 | $6,528 | | |
| Proportion of the fund's equities for which data is available (%) | 98% | 99% | 97% | | |

Note: We have restated our carbon footprint figures for 2022 and our baseline year (2020). This is because we have moved to a new analytics and reporting platform through our ESG data provider. We have chosen to report these figures using this system now, because it offers 'point in time' data and calculations (i.e. provides the result as if we were running the analysis at that time). All comparisons are provided using these restated figures. Public equity aggregate includes equity positions from our Absolute return mandates.

* Equity benchmark changed from FTSE All-World Minimum Variance Index to FTSE Custom All-World Climate Minimum Variance 100% GBP Hedged Index on 1 August 2021.

### PPF carbon footprint Corporate credit Scope 1 & 2 metrics

| | 2023 | 2022 | 2020 (Baseline yr) | Changes from 2022 to 2023 (%) | Changes from 2020 to 2023 (%) |
|---|---|---|---|---|---|
| **Metrics based on investor allocation (EVIC)** | | | | | |
| Total financed carbon emissions ($tCO_2e$) | 277,238 | 235,233 | 361,360 | 18% | -23% |
| Financed carbon emissions ($tCO_2e$/$m invested) | 37 | 51 | 58 | -27% | -36% |
| **Metrics based on portfolio weights (WACI)** | | | | | |
| Weighted average carbon intensity ($tCO_2e$/$m revenues) | 122 | 218 | 328 | -44% | -63% |
| Credit benchmark weighted average carbon intensity | 200 | 173 | 257 | 16% | -22% |
| Market value of the fund's corporate credit covered by carbon data ($m) | $7,533 | $4,618 | $6,214 | | |
| Proportion of the fund's corporate credit for which data is available (%) | 97% | 94% | 90% | | |

Note: We have restated our carbon footprint figures for 2022 and our 2020 baseline year. This is because we have moved to a new reporting platform from our ESG data provider. All time period comparisons are provided using these restated figures. Corporate credit aggregate includes credit positions from our Strategic cash, IG credit, Short Duration credit and credit holdings from our EMD and Absolute return mandates.

### PPF carbon footprint UK Credit Scope 1 & 2 metrics

| | 2023 | 2022 | 2020 (Baseline yr) | Changes from 2022 to 2023 (%) | Changes from 2020 to 2023 (%) |
|---|---|---|---|---|---|
| **Metrics based on investor allocation (EVIC)** | | | | | |
| Total financed carbon emissions ($tCO_2e$) | 106,522 | 61,786 | 102,249 | 72% | 4% |
| Financed carbon emissions ($tCO_2e$/$m invested) | 46 | 35 | 51 | 31% | -10% |
| **Metrics based on portfolio weights (WACI)** | | | | | |
| Weighted average carbon intensity ($tCO_2e$/$m revenues | 131 | 122 | 156 | 7% | -16% |
| Market value of the fund's UK credit covered by carbon data ($m) | $2,328 | $1,770 | $2,012 | | |
| Proportion of the fund's UK credit for which data is available (%) | 96% | 92% | 67% | | |

Source: Certain information ©2023 MSCI ESG Research LLC. Reproduced by permission; no further distribution. PPF portfolio holdings as of 31/12/2023. Equity benchmark = FTSE Custom All-World Climate Minimum Variance 100% GBP Hedged Index. Credit benchmark = Bloomberg Barclays Global Credit Index 100% GBP Hedged.

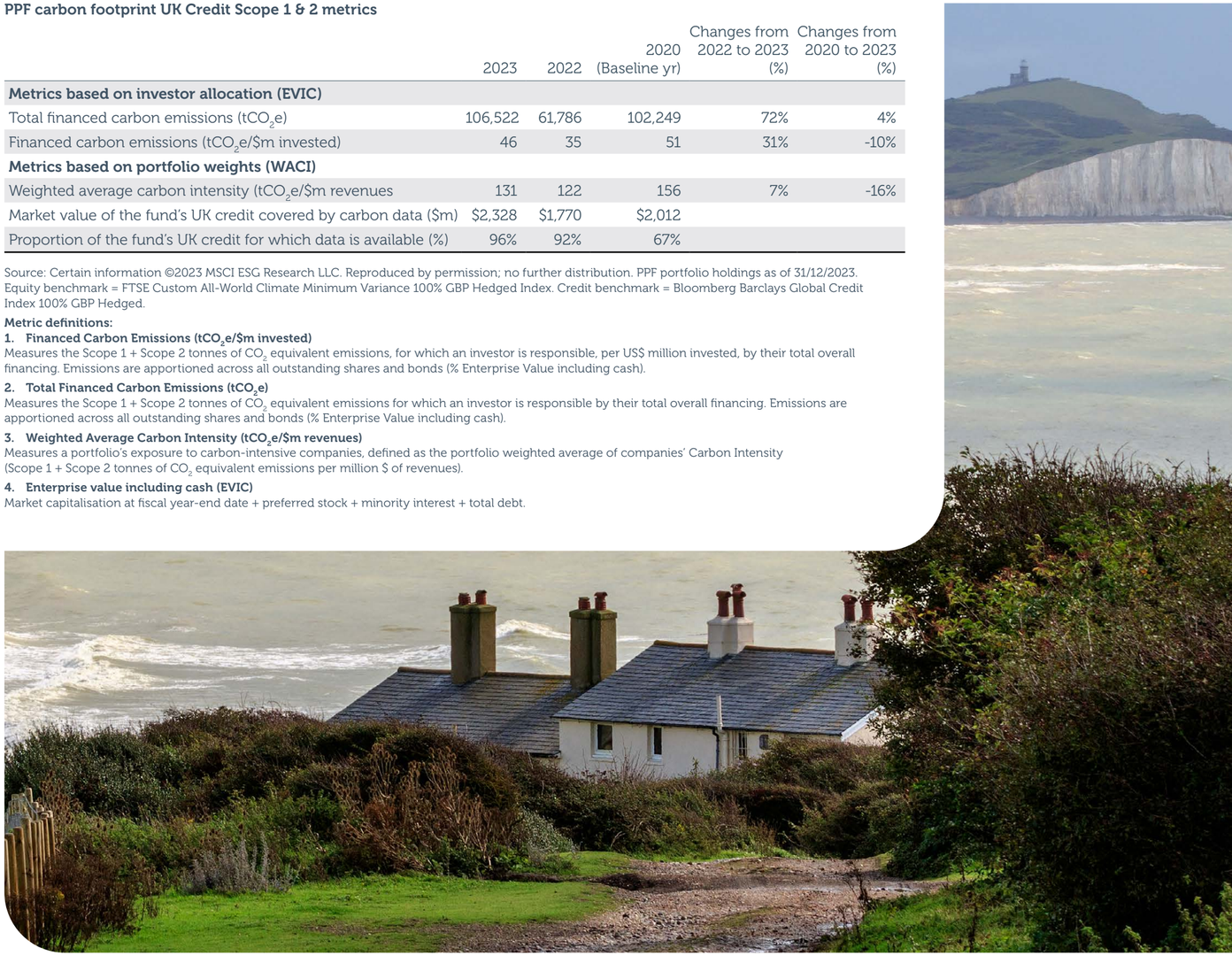
**Metric definitions:**

1. **Financed Carbon Emissions ($tCO_2e$/$m invested)**
Measures the Scope 1 + Scope 2 tonnes of $CO_2$ equivalent emissions, for which an investor is responsible, per US$ million invested, by their total overall financing. Emissions are apportioned across all outstanding shares and bonds (% Enterprise Value including cash).

2. **Total Financed Carbon Emissions ($tCO_2e$)**
Measures the Scope 1 + Scope 2 tonnes of $CO_2$ equivalent emissions for which an investor is responsible by their total overall financing. Emissions are apportioned across all outstanding shares and bonds (% Enterprise Value including cash).

3. **Weighted Average Carbon Intensity ($tCO_2e$/$m revenues)**
Measures a portfolio's exposure to carbon-intensive companies, defined as the portfolio weighted average of companies' Carbon Intensity (Scope 1 + Scope 2 tonnes of $CO_2$ equivalent emissions per million $ of revenues).

4. **Enterprise value including cash (EVIC)**
Market capitalisation at fiscal year-end date + preferred stock + minority interest + total debt.



# APPENDICES CONTINUED

Appendix C

## Our carbon footprint calculations

We report a range of carbon emissions-based metrics for our listed global equity and credit investment holdings to align with both TCFD and the Partnership for Carbon Accounting Financials (PCAF) guidance. We are also guided by the DWP's work around proposed metrics for pension funds.

Although our year-end is 31 March, we review our climate exposure metrics to 31 December. This allows for the greatest coverage of climate data, such as the annual corporate CDP responses made available to investors each autumn.

Our preferred metric for assessing carbon risk exposure on a day-to-day basis is the Weighted Average Carbon Intensity (WACI). We feel it gives us the greatest coverage in fixed income where we have more significant exposure and allows us to compare similar types of assets and portfolios, regardless of investment size.

- **Absolute financed emissions**
  For absolute carbon emissions, we measure the total operational Scope 1 and Scope 2 carbon emissions (based on the definition set by the Greenhouse Gas (GHG) Protocol) using data from MSCI ESG Research. To calculate our apportioned 'ownership' of each investment, we've used Enterprise Value Including Cash (EVIC) as recommended by the PCAF.
- **Relative carbon intensity**
  To give the fullest picture of the carbon intensity of our portfolio, and so we can compare different portfolios on as close to a like-for-like basis as we can, we use two relative measures:
  - **Financed carbon emissions per million dollars invested metric**
    Measuring the Financed Carbon Emissions per million dollars invested helps us understand the carbon emissions being financed by the size of our investment portfolio.
  - **Weighted Average Carbon Intensity (WACI) metrics**
    As recommended by the TCFD, we use the WACI footprint to monitor our portfolios' exposure to carbon-intensive companies. It's flexible enough to use across asset classes and gives us greater coverage in fixed income portfolios. EM Sovereigns have their own WACI calculation – see right.

**1. Absolute financed emissions metric**

### Total Financed Carbon Emissions in tonnes $CO_2e$:

$$\sum_{n}^{i} \left( \frac{\textit{current value of investment in entity}}{\textit{Entity's Enterprise Value including cash}} \quad \textit{X entity's GHG emissions} \right)$$

**2. Relative carbon intensity metrics**

### Financed Carbon Emissions per million dollars invested

metric (may be shown in other currencies too):

$$\frac{\sum_{n}^{i} \left( \frac{\textit{current value of investment in entity}}{\textit{Entity's Enterprise Value including cash}} \quad \textit{X entity's GHG emissions} \right)}{\textit{current portfolio value (\$m)}}$$

### Weighted Average Carbon Intensity

metric (where normalisation factor is entity's revenues, but other normalisation factors can be used):

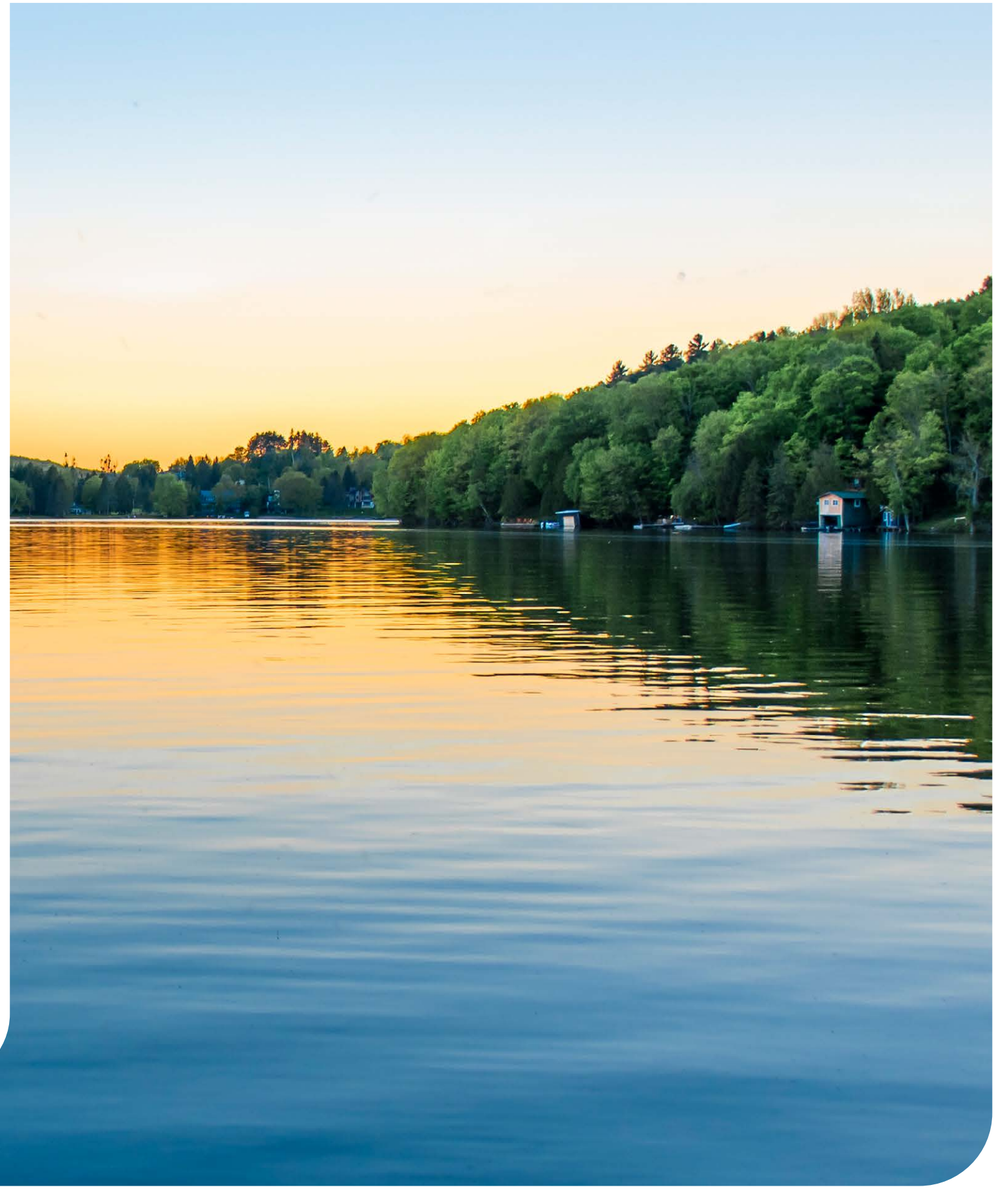
$$\sum_{n}^{i} \left( \frac{\textit{current value of investment in entity}}{\textit{current portfolio value}} \; X \; \frac{\textit{entity's GHG emissions}}{\textit{normalisation factor}} \right)$$

### Weighted Average Carbon Intensity for Sovereign Constituents (tonnes $CO_2e$/ $M GDP nominal)

Measures a portfolio's exposure to carbon-intensive economies, defined as the portfolio weighted average of sovereigns' GHG Intensity (emissions/GDP):

**Sovereign constituents** tonnes $CO_2e$/$m GDP nominal

$$\sum_{n}^{i} \left( \frac{\textit{current value of investment}_{i}}{\textit{current portfolio value}} \; X \; \frac{\textit{sovereign issuer's GHG emissions}_{i}}{\textit{sovereign issuer's \$M GDP}_{i}} \right)$$



Sources:

Sovereign GHG without LULUCF from United Nations Framework Convention on Climate Change (UNFCCC) and PPP-Adjusted GDP from World Bank.

Sovereign Emission Intensity Formula based on PCAF standard (see page 116 of https://carbonaccountingfinancials.com/files/downloads/PCAF-Global-GHG-Standard.pdf): Sovereign GHG without LULUCF / PPP adjusted GDP.

EM Sovereign Benchmark: 25 per cent J.P. Morgan Government Bond Index-Emerging Markets (GBI-EM) / 25 per cent J.P. Morgan Emerging Market Bond Index (EMBI) / 50 per cent cash.

# APPENDICES CONTINUED

Appendix D

## MSCI disclaimer

This disclosure was developed using information from MSCI ESG Research LLC or its affiliates or information providers. Although the Pension Protection Fund's information providers, including without limitation, MSCI ESG Research LLC and its affiliates (the 'ESG Parties'), obtain information (the 'Information') from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness, of any data herein and expressly disclaim all express or implied warranties, including those of merchantability and fitness for a particular purpose. The Information may only be used for your internal use, may not be reproduced or redisseminated in any form and may not be used as a basis for, or a component of, any financial instruments or products or indices. Further, none of the Information can in and of itself be used to determine which securities to buy or sell or when to buy or sell them. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein, or any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

Appendix E

## Our climate change voting guidelines

Supporting the global transition to a low-carbon economy is a key focus for the PPF. Stewarding our portfolio companies' transition towards Net Zero is a fundamental element of managing climate-related risks. Through the creation of our Climate Watchlist of high-emitting portfolio companies, by working with our mandated portfolio managers, our stewardship services provider EOS and by participating in relevant industry initiatives, we expect progress to Net Zero to be continual and measurable.

In order to track and encourage progress on climate, we utilise the management quality assessment of companies that are analysed by the Transition Pathway Initiative (TPI). We are also informed by the Climate Action 100+ Net Zero Benchmark for those companies included in this assessment. We also will be guided in our voting by the industry initiatives around net zero alignment for both asset owners and our asset managers.

For 2024, we have increased the expectations for climate-related voting guidelines as noted below:

**Transition Pathway Initiative (TPI):** The management quality score threshold has been raised based on the expanded assessment framework (e.g., Level 4 for automotives and diversified mining). Banks are now also subject to this threshold.

**Climate Action 100+ Net Zero Benchmark:** Consider voting against companies who lack a comprehensive medium-term emissions reduction target or lack reporting which is aligned with TCFD recommendations.

**Coal:** The coal phase-out policy introduced in 2023 has been further refined to target companies expanding coal infrastructure and those who are not implementing Paris-aligned phase-out plans.

**Shareholder proposals:** With the rise of 'anti-ESG' proposals and increasing volumes, increased scrutiny is given to proposals and proponents to ensure voting aligns with our expectations. We will continue to review any shareholder proposals related to climate change internally.

### Biodiversity

For 2024, we expect to see 'say-on-nature' proposals on company agendas more frequently. These will be reviewed on a case-by-case basis.

**Deforestation:** There will be a continued focus on companies scoring poorly on Forest 500, which assesses companies disclosure and management of deforestation risks. This is defined as companies that score below 10 on the Forest 500 ranking and financial institutions that score 0 on the Forest 500 ranking.

**Antimicrobial resistance (AMR):** We will generally seek to support shareholder proposals on the topic where they are relevant and aligned to our interests.

Appendix F

## PPF Climate Change Policy

### Ambition

We're committed to supporting the UK Government's Net Zero by 2050 target and are taking all reasonable steps to achieve this for our own operations by 2035 or sooner. For our investments, we seek to contribute to the global transition to Net Zero through our portfolio and engagement activities.

### Beliefs

As a long-term investor, the PPF has a duty to consider all financially material risk factors in our investment decisions, including climate-related. We believe climate change can materially impact businesses, markets and economies globally in a number of ways, from a societal perspective as well as environmental.

The PPF has developed a specific Climate Change Policy, as we see climate change as a systemic and non-diversifiable concern, which has the potential to significantly affect the value of our investments across the short, medium and long-term, throughout the global economy. We also believe that opportunities can exist and be exploited for companies and assets well-positioned for the transition to a low-carbon economy and for adaptation in relation to increasing physical risks. Through sharing our experiences, we can encourage others to increase investment focus in these areas to drive forward the transition.

### Assessment

We recognise the complexity and barriers to identifying and assessing the forward-looking financial materiality of climate-related impacts on our investments. However, we seek to assess the exposure of our investments to climate-related risks and opportunities through a range of metrics and analysis, as the tools available to measure these evolve.

Consideration is given to the potential impacts on asset prices and return expectations across both short and longer-term time horizons, and how this could inform our decisions around strategic asset allocation and portfolio construction.

We oversee all new and existing investment arrangements in a way that takes account of climate transition and adaptation risks, as well as resilience, opportunities and inclusivity, in line with the 2015 Paris Agreement commitment to keep global temperature rise this century to well below 2°C and aim to limit the increase to 1.5°C through an orderly transition.

### Manager Expectations

We expect our external managers to understand and integrate material climate-related risks into their analysis and investment process, including undertaking carbon footprinting and scenario analysis, assessing asset exposure to physical risks, and engaging with issuers, where relevant for their asset class. We expect our managers to exercise their voting rights and engagement resource to positively influence the companies in their portfolio to transition to a low-carbon economy.

These expectations are a requirement of our manager selection process for new investment mandates. Managers that cannot demonstrate their commitment to meeting these expectations will not be appointed.

In monitoring the exposure and performance of our external managers, we review how they are managing climate-related risks and opportunities, including voting and engaging with issuers on climate-related issues, and how they are reporting to us on their actions. We share examples of best practice to promote consistency and alignment of approaches across our investment mandates.

### Engagement and Collaboration

A significant part of our climate strategy to support the transition is implemented through our Climate Watchlist. This serves as an engagement focus list of companies that are responsible for over 70 per cent of our public markets Scope 1 and 2 financed emissions. We not only engage directly with selected companies, but also utilise our external managers and stewardship services provider to achieve engagement objectives. Where sufficient progress is not considered to be taking place, we have developed an escalation policy which provides a framework to drive change at these companies.

We seek to encourage greater climate disclosure through supporting disclosure frameworks such as the CDP and the Task Force on Climate-related Financial Disclosures (TCFD), and through engaging with companies identified by Climate Action 100+ and the Net Zero Engagement Initiative, so that exposure to climate risks (and opportunities) can be better understood and managed.

We also collaborate with the wider investment community on climate change issues, as a signatory to the Principles for Responsible Investment (PRI) and as a member of the Institutional Investors Group on Climate Change (IIGCC).

### Policy Engagement

As stated in our Sustainability Strategy, we support the UK Government's Net Zero commitment and aspiration to make the UK the world's first Net-Zero aligned financial centre. We seek to actively contribute to public debate on climate change risks and opportunities and use our influence to promote the growth of a sustainable pensions industry. We consider collaboration through industry groups such as the IIGCC to be valuable platforms for driving change.

### Reporting

We will communicate and engage on the actions and progress that have been taken around our climate change strategy to relevant beneficiaries and stakeholders, reporting in line with TCFD guidance for asset owners.

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